Journals Management Board meeting

Gladstone's Library, Hawarden, 6 and 7 June 2016

Chair: Samar Hasnain

Attendees: Samar Hasnain, Sandy Blake (*Acta B*), Tony Linden (*Acta C*), Paul Raithby (*Acta C*), Jenny Martin (*Acta D*), Soichi Wakatsuki (*Acta D*), Bill Harrison (*Acta E*), Helen Stoeckli-Evans (*Acta E*), Bill Hunter (*Acta F*), Mitchell Guss (Executive Committee), Dimitri Argyriou (*IUCrJ*), Ted Baker (*IUCrJ*), Sine Larsen (*IUCrJ*)

Chester staff: Jonathan Agbenyega, Nicola Ashcroft, Jill Bradshaw, Mike Dacombe, Simon Glynn, Gillian Holmes, Louise Jones, Brian McMahon, Lorraine Rathbone, Andrea Sharpe, Lisa Stephenson, Peter Strickland, Tony Weight, Michele Zema

Timetable

Sunday 5 June

Afternoon: Arrival at Gladstone's Library

19:00 **Meal at the Glynne Arms in Hawarden**

Monday 6 June

Breakfast at Gladstone's Library

09:30-11:00 General discussions

11:00-11:15 Coffee

11:15-12:45 General discussions

12:45-14:00 Lunch

14:00-15:00 General discussions

15:00-15:15 Refreshments

15:15-16:00 General discussions

16:00-17:00 Breakout sessions

18:45 Meal at Gladstone's Library

Tuesday 7 June

Breakfast at Gladstone's Library

09:30-11:00 General discussions

11:00-11:15 Coffee and group photograph

11:15-13:00 General discussions

13:00-14:15 Lunch

14:15-15:00 General discussions

15:00-15:15 Refreshments

15:15-16:00 General discussions

16:00 Departure

An evening meal will be arranged for those staying until Wednesday 8 June

Agenda

The key theme of the meeting is a critical appraisal of our impact factors and how to improve the quality of our journals in a sustainable fashion.

The agenda is listed below. We expect to cover items 1-6 on Monday 6 June and items 7-18 on Tuesday 7 June.

1. Approval of the agenda
2. Journals development (Peter Strickland)
3. Improving the journals and increasing their appeal to a wider audience (Louise Jones)
4. Retirements and Co-editor appointments
5. Pre-screening
6. Reviewers and review procedures (Nicola Ashcroft)
7. Special issues (Tony Weight)
8. Commissioning articles (Jill Bradshaw)
9. Article highlighting and publicity (Jonathan Agbenyega)
10. Science portals (Peter Strickland)
11. Business development (Jonathan Agbenyega)
12. Journals promotion (Andrea Sharpe)
13. Tools and technical developments (Brian McMahon)
14. IUCr developments and outreach (Mike Dacombe, Michele Zema)
15. Meetings/workshops in Hyderabad
16. Any other business
17. Date of next meeting
18. List of actions

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Agenda notes

1. APPROVAL OF THE AGENDA

The chief aim of this meeting is to have open discussions about the journals and to explore any ideas that might help to improve their quality and outreach over the short, medium and long term. Suggestions for additional ideas or items to discuss in the meeting will therefore be very welcome. The Editor-in-chief has commented that "a critical appraisal of our impact factors and how to improve the quality of our journals in a sustainable fashion" should be a key theme of the meeting.

Actions from the last JMB meeting are listed in APPENDIX A.

Question for discussion: What would the Journals Management Board like to discuss in this meeting?

2. JOURNALS DEVELOPMENT

This part of the agenda is intended for discussions of the plans for individual journals, but also to allow a general discussion on how we can continue to make the most of the changes in journal subtitles, keywords and scopes made in recent years.

2.1. Development of individual journals

Main Editors attending the JMB meeting will be asked to comment on the progress of their journals. Annual reports giving background information on each of the journals are provided in APPENDIX B. Background citation data for the journals is available at

http://journals.iucr.org/services/coeditors/meetings/jmb/citation_data_2016.html

Questions for discussion:

What new ideas have worked well on your journal in the last year that would also be applicable to other journals?

Are there any activities you think we can introduce quickly that will make a difference in terms of how potential authors and our audience at large perceive our journals?

2.2. Journal quality survey

A survey of all Editors and Co-editors has also been undertaken to look at factors affecting journal quality (see APPENDIX C). A total of 62 responses was received. The results of the survey will be presented at the meeting.

3. IMPROVING THE JOURNALS AND INCREASING THEIR APPEAL TO A WIDER AUDIENCE

3.1. Titles, abstracts and keywords

As a publisher, IUCr Journals needs to use every tool possible to make sure that our content is discoverable and optimised for search engines. Correct choices of titles, abstracts and keywords are important in making content discoverable.

In the last year, we have made modifications to our Notes for Authors and also Notes for Referees for most journals. The Notes for Authors now include the following statements:

> *"Articles should be clearly and simply written so that they are accessible to as broad a readership as possible."*
>
> *"The title of the article should be written to appeal to a wide audience and should include key phrases in the subject area."*

"The Abstract should state as specifically and as quantitatively as possible the principal results obtained and their broad significance."

The Notes for Referees have been amended to include the following:

"If you have suggestions that would make the article you are reviewing more accessible to a wide readership, please include these in your report."

Nature, *PNAS* and an increasing number of other journal publishers are now regularly suggesting that titles be revised and abstracts be rewritten, so that the article can be found easily through searching and also has clear conclusions for a broad audience. As an experiment, we have attempted to improve titles, abstracts and keywords in *Acta C* when articles are edited in Chester – we will provide some feedback on this exercise at the meeting.

Questions for discussion:

When search engines check individual papers, they are looking at two key things: the title and the abstract. How can we help authors maximise the impact of their titles and abstracts?

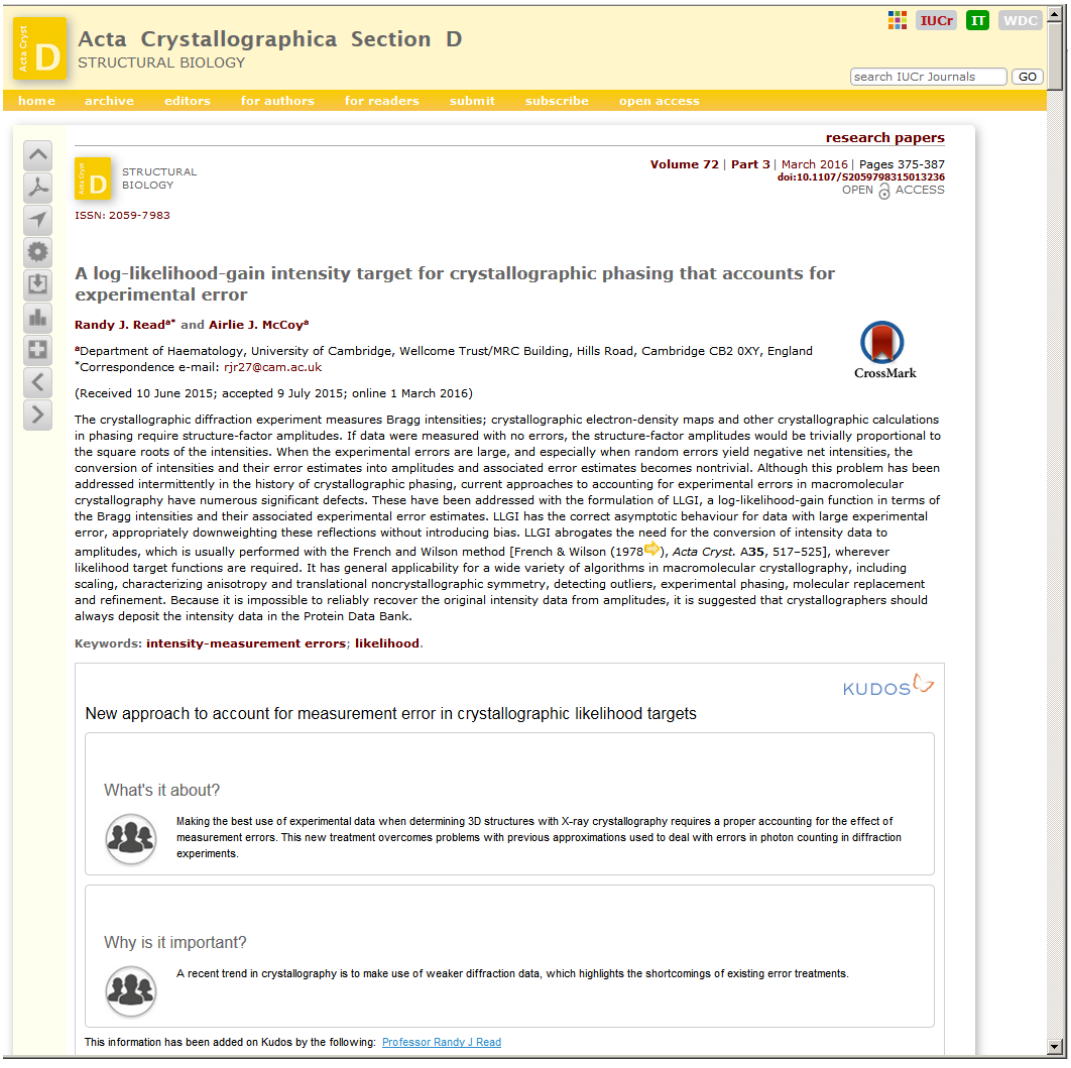
Should Co-editors be encouraged to improve titles, abstracts and keywords?

Should we do more during technical editing to improve the discoverability of articles?

3.2. Significance statement/lay summaries

Authors of *PNAS* are required to submit a 120-word-maximum statement about the significance of their research paper written at a level understandable to an undergraduate-educated scientist outside their field of specialty. The primary goal of the significance statement is to explain the relevance of the work to a broad readership. The significance statement appears in the paper itself and is required for all research papers.

Authors of IUCr Journals are now asked to provide lay summaries for Kudos (see Section 9.2). In the new web design, the lay summaries are displayed in the online version of articles (see below) and on article landing pages.



Questions for discussion:

Should IUCr Journals consider including significance statements?

If yes, which journal would be most appropriate for a pilot study?

Can the lay summaries written for Kudos serve the same purpose?

Should lay summaries be collected during article submission?

3.3. Author videos

Some journals allow authors to provide videos to accompany their articles and explain the context and importance of their research. Such videos could be published on the IUCr YouTube channel, be linked to and from the article, and be used elsewhere on the new journals site to promote the article. Note that we already publish all videos that are supplied as part of the supporting information on the IUCr YouTube channel.

Questions for discussion:

Should we encourage authors to provide videos explaining their work?

If yes, which journal would be most appropriate for a pilot study?

Should the videos be included in the peer review process or could they be submitted after acceptance?

3.4. Audio slides

It is now possible for our journals to provide a standard set of slides to each author on publication. These slides would include a title page, abstract (or synopsis), contents listing and a separate page for each figure. Authors could be asked to download the slides and add audio to them.

Questions for discussion:

Should we encourage authors to annotate slides to explain their work?

Should we provide readers with audio-enhanced slides?

3.5. Wider aims and scopes

In the last few years, significant efforts have been made to change the aims and scopes of our journals to allow high-quality scientific studies across a wider area to be published in our journals.

Question for discussion: Should the aims and scopes of any of our journals be widened further to capture interesting science?

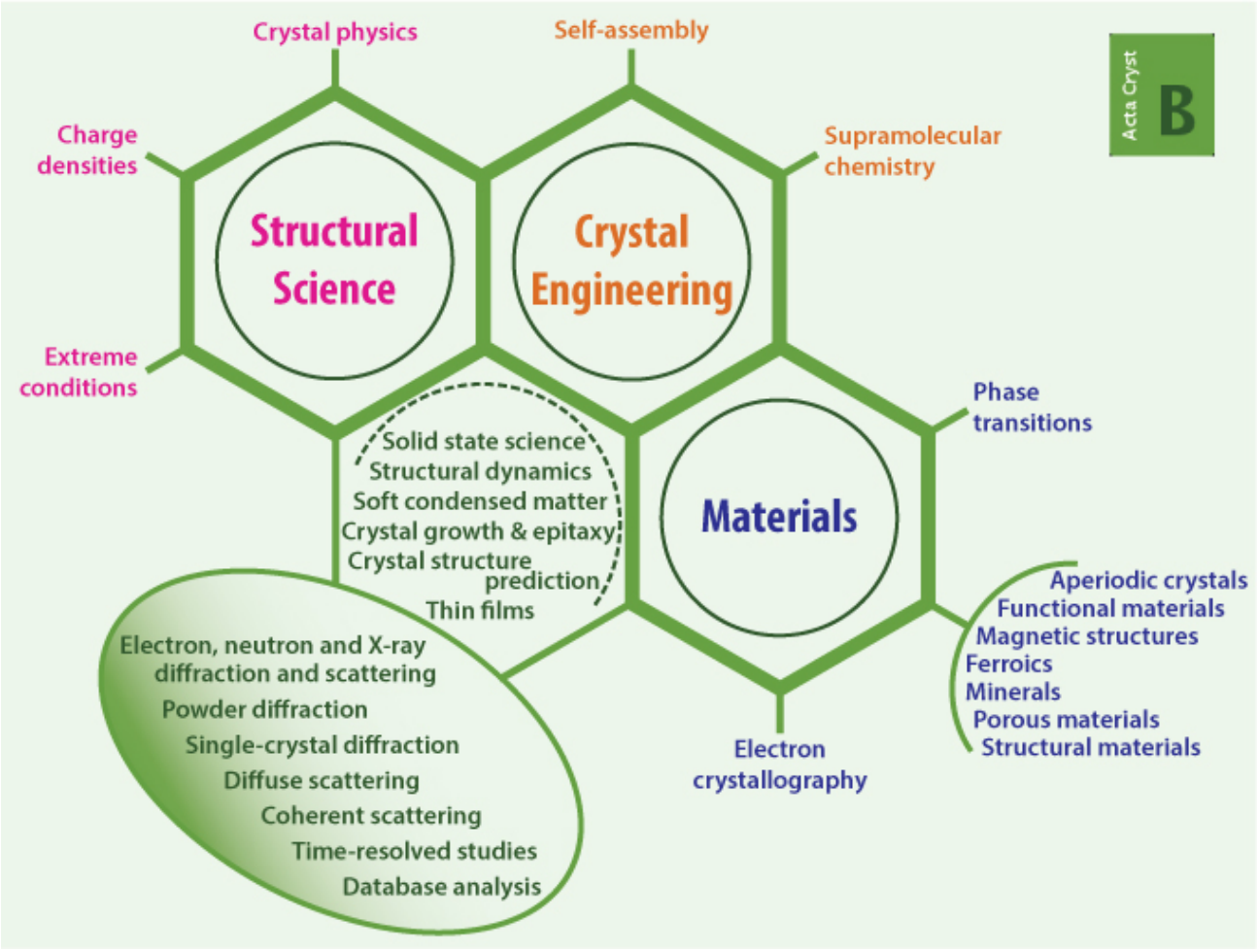
3.6. Graphical representation of journal scope

A number of journals have started to provide a graphical representation of their aims and scope as a way of clearly communicating the intended content of the journal to authors and readers. A possible graphical scope for *Acta B* is shown below.

Questions for discussion:

Does the graphical scope for *Acta B* work well?

Would any of our other journals benefit from a graphical aims and scope?



3.7. Additional Editors and Co-editors

Another way to increase the appeal of the journals to a wider audience is to appoint new Editors and Co-editors who will bring in new sets of authors to a journal. If Editors have any ideas for additional Editorial Board members who would enhance their journals, these should be handled through the usual appointment procedures (see also below).

4. RETIREMENTS AND CO-EDITOR APPOINTMENTS

4.1. Survey on appointment procedures

A survey of Main and Managing Editors has been carried out to find out how well appointment procedures for editors are working. The current procedures are documented at:

http://journals.iucr.org/services/coeditors/handbook/appointments.html

The response rate to the survey was very high with 28 responses in total. The full results of the survey are given in APPENDIX D, together with material on the importance of a gender-balanced editorial team supplied by Mitchell Guss.

The results of the survey will be presented at the meeting. From the survey there appears to be some concern that the procedures are not working well and that a full discussion of the procedures at the meeting would be helpful. Jenny Martin has asked that we consider developing a policy to outline the IUCr approach to addressing gender imbalance among Co-editors.

4.2. New appointments

The status of Co-editor appointments for individual journals will be reviewed. New Editors and Co-editors appointed in 2015 are listed in APPENDIX H5 and a full list of editors is given in APPENDIX H6.

5. PRE-SCREENING

Pre-screening has been introduced for *Acta A*, *Acta E* and *IUCrJ*. The way this is applied is slightly different for each of these journals. This agenda item is included for Main and Managing Editors to comment on how well pre-screening procedures are working for their journals, and also to look at whether pre-screening can be implemented for other journals. The main aim is to give authors much quicker decisions about their articles, improve the consistency of decisions and, for certain journals, act to keep the number of papers to a manageable level and to maintain the quality of published articles.

For journals not already carrying out pre-screening, this idea has been discussed with the Main Editors and in some cases with the boards of the journals. Their responses are summarised below:

Journal	Response to pre-screening
Acta B	Editors are in favour of the development of a set of guidelines to allow Co-editors to make more-informed quick decisions about articles
Acta C	Editors do not think that pre-screening is needed for the journal at the moment but would favour the development of a set of guidelines to allow Co-editors to make more-informed quick decisions about articles and so aid consistency
Acta D	Editors do not have sufficient time for pre-screening, but have developed a checklist to allow Co-editors to make more-informed quick decisions about articles
Acta F	A flowchart to allow Co-editors to make more-informed quick decisions about articles has been circulated to the Editorial Board
JAC	Editors would consider pre-screening if the number of submitted articles increases significantly
JSR	Editors have agreed to pre-screening; implementation by Chester for 2017

The current pre-screening procedures for *Acta A*, *Acta E* and *IUCrJ* involve one or more Main Editors viewing each submitted article and then voting on whether the article should proceed to review and, in some cases, what category the article should be assigned to. Alternatives to these arrangements might be:

- Pre-screening by a selected board - a board of selected Editors and/or Co-editors would screen submissions. The voting rules and size of such a board would need to be agreed, as would a mechanism to handle votes that were incomplete by a certain time deadline.
- Enhanced checking of articles by Co-editors before review. Co-editors would work through a checklist of questions before deciding whether to allow an article to proceed to review or not. They would be encouraged to work with the Main Editors of the journal whenever there was a borderline case. This method may be difficult to implement for journals where the content is very varied.

6. REVIEWERS AND REVIEW PROCEDURES

6.1. General review procedures

It is always useful to get feedback on how well the review system is working. Information on useful features that are available on other editorial systems but are not available on the IUCr system would be of particular interest.

Questions for discussion:

How well is the review system working?

What additional features would be helpful?

What additional help should we provide to Co-editors to ensure rapid review?

6.2. Survey of reviewers

A survey of reviewers is currently being carried out. The aims include looking at what would make reviewers more likely to accept an invitation, whether providing training to reviewers would be helpful, recognition and rewards for reviewers, and ways of making the review process more effective and efficient. The results of the survey will be presented at the meeting. For the purposes of discussion, a *Nature* article on the case for involving young researchers in peer review is included in APPENDIX D.

7. SPECIAL ISSUES

Special issues are a key way of demonstrating the new direction and scope of a journal. In addition, if chosen correctly, small themed special issues on topics of importance to the journal can often be more cited than standard issues. Where special issues are linked to a meeting there is also the opportunity to encourage organisers of the meeting to make the issues open access. It should, however, be noted that resources in the Editorial Office are finite, and it is very important to select only the best special issues for publication, as each special issue is a large undertaking for already busy staff.

A web page is available that lists issues that are in planning and also provides links to recently published special issues. The web page is at:

http://journals.iucr.org/services/specialissues_planning.html

This is intended to provide Main Editors with information about possible clashes in commissioning and should be consulted whenever a new issue is planned.

Citation information for recently published special issues is given in APPENDIX H8.

7.1. Planned and published special issues

Special issues published in the last year include the following: CCP4 – Two Way Street - Complementary Methods (*Acta D*, January 2015); X-ray Radiation Damage to Biological Crystalline Samples (*JSR*, March 2015), Free-Electron Lasers (*JSR*, May 2015); Molecular Parasitology - Advances in Biology and Supporting Drug Discovery (*Acta F*, May 2015); X-ray Diffraction and Imaging (*JAC*, virtual issue, June 2015); Selected papers from ICCBM15 (*Acta F*, July 2015); Energy Materials (Acta B, December 2015); PhotonDiag2015 (*JSR*, January 2016); CCP4 - Advances in experimental phasing (*Acta D*, March 2016).

Issues in preparation or planning include: Crystal Structure Prediction (*Acta B*, August 2016); Scorpionates: a golden anniversary (*Acta C*, August 2016); FEL Software (*JAC*, August 2016); Selected papers from SAS 2015 (*JAC*, autumn 2016); NMR Crystallography (*Acta C*, December 2016); CCP4 - Protein-Ligand Complexes: Understanding Biological Chemistry (*Acta D*, autumn 2016); 100 Years of the Debye Scattering Equation (*Acta A*, end 2016); X-ray Radiation Damage to Biological Crystalline Samples (*JSR*, spring 2017); DDDWG special issue (under consideration); Beyond Bragg (*Acta A*, under consideration); Big Data (*Acta A*, under consideration); Ferroelectric and Multiferroic Materials (*Acta B*, under consideration); Halogen Bonding (*Acta B*, under consideration); Mineralogy (*Acta B*, under consideration); CCP-EM Spring Symposium (*Acta D*, under consideration), Neutron Science and Technology (*JAC*, under consideration).

Questions for discussion:

What have been Main Editors' experiences with commissioning special issues?

What would they do differently for future issues?

Keeping in mind the limited resources in the Editorial Office, ideally how many special issues a year (across all journals) should we aim for?

10-20 years ago when special issues were available in print and were much sought after, it was easy to see how these issues were used. Now that content is available online only and researchers search on a paper by paper basis first, is the current format of a special issue the correct one, or should we use a different approach? (Examples would include

making a collection of papers published across multiple issues or multiple journals; making a collection that continued to grow over time.)

7.2. Future special issues and virtual collections

This item is intended to cover future special issues and virtual collections. Ideas for future special issues can be discussed and we might also discuss whether or which of the special issues already planned might become regular features in the journals.

Questions for discussion:

Are there organisations who we could work with to produce regular special issues (similar to CCP4)?

How could we work with IUCr Commissions on special issues?

Do we want to bring together virtual collections of papers? If yes, what would be good topic areas to start with?

In order to raise the profiles of *Acta B* and *C* in their new subject areas the programme of special issues will need to be continued - how do we sustain special issues, especially in these journals?

Would virtual collections be useful for journals such as *Acta E*? If so, what topics should they cover?

7.3. Appointing Guest Editors

The Editor-in-chief has indicated that Guest Editors should generally meet the criteria for appointment of Co-editors. The appointment criteria and procedures for Co-editors are available at

http://journals.iucr.org/services/coeditors/handbook/appointments.html

or from the link 'Appointment of editors' on your home page.

Questions for discussion:

Is this policy working well?

Is an alternative to make one of the Main Editors a Guest Editor in cases where there are difficulties in appointing Guest Editors?

Should there be any rewards for Guest Editors?

7.4. Procedures

A spreadsheet giving the suggested sequence of events and timescale for the preparation of a special issue is available from

http://journals.iucr.org/services/coeditors/specialissueinfo/specialissues.xlsx

Note that Chester can provide citation and download information on previous special issues published in a particular topic area to aid with making decisions on which special issues to publish.

8. COMMISSIONING ARTICLES

8.1. General

In addition to special issues, Lead and Feature Articles, and Topical Reviews are a good way to attract new readers and authors and emphasise the new scope and direction of a journal. A list of Lead and Feature Articles, and Topical Reviews that have either been published recently or are in planning is given as APPENDIX E. This list is also available via the web at

http://journals.iucr.org/services/commissioned_articles.html

It is kept regularly updated and is intended to help us to avoid inviting individual authors too frequently.

Citation information for commissioned articles is given in APPENDIX H8.

Questions for discussion:

How can we commission more Lead and Feature Articles, and Topical Reviews?

What should our annual targets be for the number of articles to be commissioned for each journal?

Could we work more closely with the IUCr Commissions in this area?

8.2. IUCr Congress and regional associate meetings

IUCrJ commissioned approximately 40 articles associated with the IUCr Congress in Montreal. Other journals also covered particular IUCr Congress sessions by commissioning articles from invited speakers. Plans for commissioning articles from Plenary, Keynote and Invited speakers at the Hyderabad Congress will be discussed

Regional associate meetings may also be a useful source of commissioned articles. For the IUCr Congress or regional associate meetings, it is suggested that if you wish to consider inviting authors to publish in your journal that you first let your Managing Editor know. In the office, we will then coordinate the sending of invitations to speakers.

9. ARTICLE HIGHLIGHTING AND PUBLICITY

There are a number of ways in which the journals are providing additional publicity for articles. We need to continue to improve the ways in which we identify articles for highlighting; we also need to make sure that any publicity is available when the articles are published. The earlier that papers with significant promise can be detected, the greater the likelihood that we will be able to successfully promote the paper.

Note that a facility for Co-editors to recommend papers for highlighting on acceptance has not yet been implemented, but is included in our planning of future developments.

9.1. Types of highlighting

The different ways that we highlight articles at present are broadly as follows:

Highlighted articles – these are papers picked out by the Main and Managing Editors as interesting papers. Highlighted articles feature on the journal home page and could also feature in portal (*e.g.* IUCrChem, IUCrBio) pages.

Commentaries – articles are publicised by having a Commentary written about them. We have published about 48 Commentaries in *IUCrJ*, *Acta A*, *B*, *D*, *JAC* and *JSR* so far. There are some logistical problems in getting a Commentary written in time for it to accompany the article it is publicising. Some ideas for selecting and preparing commentaries are available from

http://journals.iucr.org/services/coeditors/handbook/commentaries.html

Recently published Commentaries include the following:

Duxbury, P. M. (2016). *Simple graphs that guide combinatorial materials design Acta Cryst.* A**72**, 265-267.

Görbitz, C. H. (2016). *The development and use of a crystallographic database Acta Cryst.* B**72**, 167-168.

Dauter, Z. (2016). *Objective evaluation of radiation damage in a nucleoprotein complex Acta Cryst.* D**72**, 601-602.

Hao, Q. (2016). *De novo phasing with optimized XFEL data IUCrJ* **3**, 161-162

Borbély, *A. (2015). Accurate strain determination from digital image correlation of Laue diffraction spots J. Appl. Cryst.* ***48****, 1614-1616.*

Graafsma, H. (2016). *Hybrid pixel array detectors enter the low noise regime J. Synchrotron Rad.* **23**, 383-384.

Citation information for Commentaries and articles that have been commented on is given in APPENDIX H7.

Research news items – these are shorter articles for more general readers. They may accompany a Commentary, may replace a Commentary that we were unable to commission in time, or may just be commissioned separately. They are usually 400-600 words and are written either by Chester staff, by external writers or in the case of a related Commentary, possibly by the person who wrote a Commentary. Research news items are included in the IUCr web site and also sent to various agencies that handle scientific press releases. A list of research news items that have been published is given below:

Potentially hazardous dental bur debris under fillings *19 Apr 2016*
Synchrotron used to find structure of a new material that could be found on the surface of Saturn's moon Titan *04 Apr 2016*
Hybrid pixel array detectors enter the low-noise regime *22 Mar 2016*
The updated crystalline sponge method *08 Mar 2016*
Irregular silicon wafer breakage studied in real-time by direct and diffraction X-ray imaging *03 Mar 2016*
Determining the structures of nanocrystalline pharmaceuticals by electron diffraction *26 Feb 2016*
Crystal and magnetic structure of multiferroic hexagonal manganite *22 Feb 2016*
Twisted X-rays unravel the complexity of helical structures *08 Feb 2016*
Nucleoprotein C-terminal domain from the Ebola and Marburg viruses *28 Jan 2016*
Digital enhancement of cryoEM photographs of protein nanocrystals *21 Jan 2016*
FEL photon diagnostics, instrumentation and beamlines design *03 Jan 2016*
Rising to the challenge of SAD phasing for SFX *21 Dec 2015*
Energy materials *03 Dec 2015*
Preserving diffraction images as part of the scientific record *27 Nov 2015*
Metal-organic frameworks: the pressure is on *13 Nov 2015*
Strain determination from digital image correlation of Laue diffraction spots *11 Nov 2015*
A beamline that runs experiments by itself *09 Nov 2015*
The complexity of modelling *03 Nov 2015*
Predicting X-ray diffuse scattering from translation-libration-screw structural ensembles *21 Sep 2015*
No such thing as ghosts? *08 Sep 2015*
The challenges and potential for sub-atomic resolution X-ray crystallography and neutron crystallography *19 Aug 2015*
The MORPHEUS II protein crystallization screen *17 Aug 2015*
Brookhaven Lab Study Explores Nanoscale Structure of Thin Films *04 Aug 2015*
Charge density and optical properties of multicomponent crystals *29 Jul 2015*
15th International Conference on the Crystallization of Biological Macromolecules (ICCBM15) *23 Jul 2015*
Journey into the crystal *20 Jul 2015*
Advances in membrane protein crystallography *09 Jul 2015*
The solvent component of macromolecular crystals *25 Jun 2015*
Aperiodic crystals and beyond *16 Jun 2015*
Framework materials yield to pressure *10 Jun 2015*
On-demand X-rays at Synchrotron Light Sources *28 May 2015*
3D structures in the design of therapeutics targeting parasitic protozoa *13 May 2015*
Powder to become crystal clear *08 May 2015*
Modulated crystal structure of St John's wort PR-10 protein *07 May 2015*
Macromolecular crystallography and what it can contribute to antiparasite drug discovery *01 May 2015*
X-ray Free-Electron Lasers *30 Apr 2015*
Intermolecular atom-atom bonds in crystals? *27 Apr 2015*
Combined effort for structural determination *15 Apr 2015*
Making carboxyl(ate) friends *14 Apr 2015*
Fluctuation X-ray scattering *25 Mar 2015*
The ecstasy and the agony: compression studies of MDMA *17 Mar 2015*
Microbial soil cleanup at Fukushima *10 Mar 2015*
Smart crystallization *02 Mar 2015*

Radiation damage to macromolecules: kill or cure? *26 Feb 2015*
Data to knowledge: how to get meaning from your result *20 Feb 2015*
The revival of the Bravais lattice *13 Feb 2015*
Fluorescence-based protein crystal identification *11 Feb 2015*
Dispersion-corrected density functional theory (DFT-D) *09 Feb 2015*
XPAD X-ray hybrid pixel detector *05 Feb 2015*
A second form of cytosine *03 Feb 2015*
The rarely understood ammonium carbonate monohydrate *29 Jan 2015*
Solving difficult structures with electron diffraction *22 Jan 2015*
Photocrystallography *21 Jan 2015*
Serial crystallography for the masses? *20 Jan 2015*
SHELXT – Integrated space-group and crystal-structure determination *08 Jan 2015*

Press releases – these generally result from the preparation of research news items. We also cooperate with authors, their institutions and their funding agencies to ensure that their press releases and press embargoes are handled correctly.

Cover picture – cover pictures now change each issue for all of the journals, and journals such as *IUCrJ* have multiple articles featured on the cover. Covers are typically chosen by the Main Editors of a journal.

Superhighlights – the new web site has an area near the top of each journal home page and on the main home page where important and newly published articles can be highlighted.

Questions for discussion:

Are current methods for highlighting working well?

Referees give scores for article impact - could this information be used in decision making for highlighting?

How do we decide which type of highlighting an article gets?

Who do we invite to write commentaries?

Timescale – at what point in the publication process do we make highlighting decisions?

What is the relationship between research news, commentaries and press releases?

Should there be different methods for different journals? For example, when *Acta A* Advances are voted on, could we get recommendations at that stage (or *e.g.* should all *Acta A* Advances be highlighted)?

Do we need different strategies for articles that have been commissioned (*e.g.* the current plan for *Acta B* includes 'the commissioning and publication of a regular series of timely and influential lead and feature articles')?

Are different strategies needed for special issues?

How do we make best use of press releases, commentaries *etc*.?

Do we contact authors, authors' institutions, central facilities, funding bodies *etc*., for commentaries and research news items only?

Have there been any problems/issues with the Commentaries that have been produced?

9.2. Kudos

IUCr Journals are working in partnership with Kudos on article publicity. Kudos is an organization set up to help authors and institutions maximize the impact and visibility of their publications. Authors using Kudos have seen a 20% increase in the number of downloads of their papers. Kudos provides a platform:

- for assembling or creating information (such as lay summaries or related multimedia) that helps readers filter the growing quantity of published research;
- for sharing such information (for example, via social media or email) to increase discoverability; and
- for measuring and monitoring the effect of both creating and sharing additional metadata and multimedia.

Authors of all articles published in the journals currently receive an email after publication and are given the option to register with Kudos.

We have worked with Kudos to make the content that authors add in the Kudos system visible in the new journal system (see Section 3.2).

Questions for discussion:

How can we encourage authors to write short lay summaries of their work?

How can we encourage authors to adopt social media tools and continue to use them?

How can we encourage authors to promote the articles they have published with IUCr Journals?

9.3. Other methods of article highlighting

This item is a chance to discuss other ways in which articles might be highlighted.

Questions for discussion:

How can we improve the publicity that we provide for articles and what points are most important for authors?

Do we need to provide more information to authors about where their articles are sent (*e.g.* abstracting and indexing agencies, search engines, PubMed Central)?

What services should we provide in addition to the current IUCr Facebook listings and Twitter feeds for each journal?

How should we publicise highly read or cited articles? (Links on journal home page, article home page, email campaigns?)

10. SCIENCE PORTALS

10.1 General science portals

A number of web pages have been set up to illustrate the possible content of science portals:

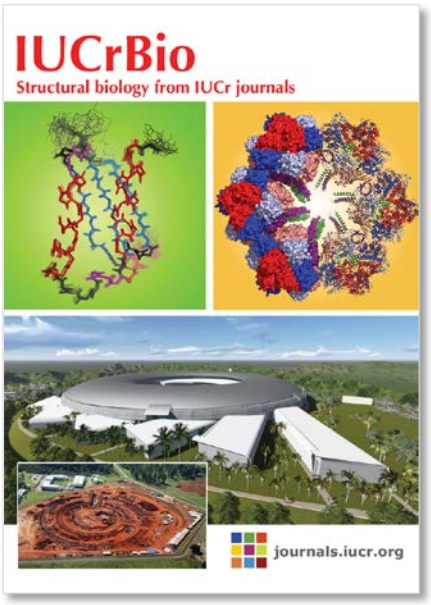
IUCrBio – http://journals.iucr.org/services/iucrbio.html

IUCrChem – http://journals.iucr.org/services/iucrchem.html

IUCrMaterials – http://journals.iucr.org/services/iucrmaterials.html

IUCrSources – http://journals.iucr.org/services/iucrsources.html

We have also started to create leaflets for some of these areas and sample leaflets will be available at the meeting.



Questions about science portals:

Are the above portals appropriate as a starting point or should we use different ones (*e.g.* Techniques and technology)?

What types of content would attract you to a science portal?

Which of the following types of content would you expect to see?

- Articles/links to articles from multiple IUCr journals
- Links to articles published in non-IUCr journals (articles from open-access journals)?
- Relevant research news and newsletter items
- Commentaries
- Jobs/meetings/announcements/blogs/webinars
- Highlight articles
- Podcasts/videos
- Adverts
- What other special features?

Who operates/organises the portal?

10.2. Facility pages

Facility pages have been available for a number of years from *Journal of Synchrotron Radiation*. The pages are linked to from journal contents pages and feature links to information provided by a number of synchrotron facilities. The facilities currently signed up are APS, MAX IV, PSI and Spring-8.

In addition to synchrotron facilities, we have been investigating signing up new types of facilities, e.g. FELs facilities and Neutron facilities. Pages providing content customised to the particular facility should be possible. For example, see the mock-up below.

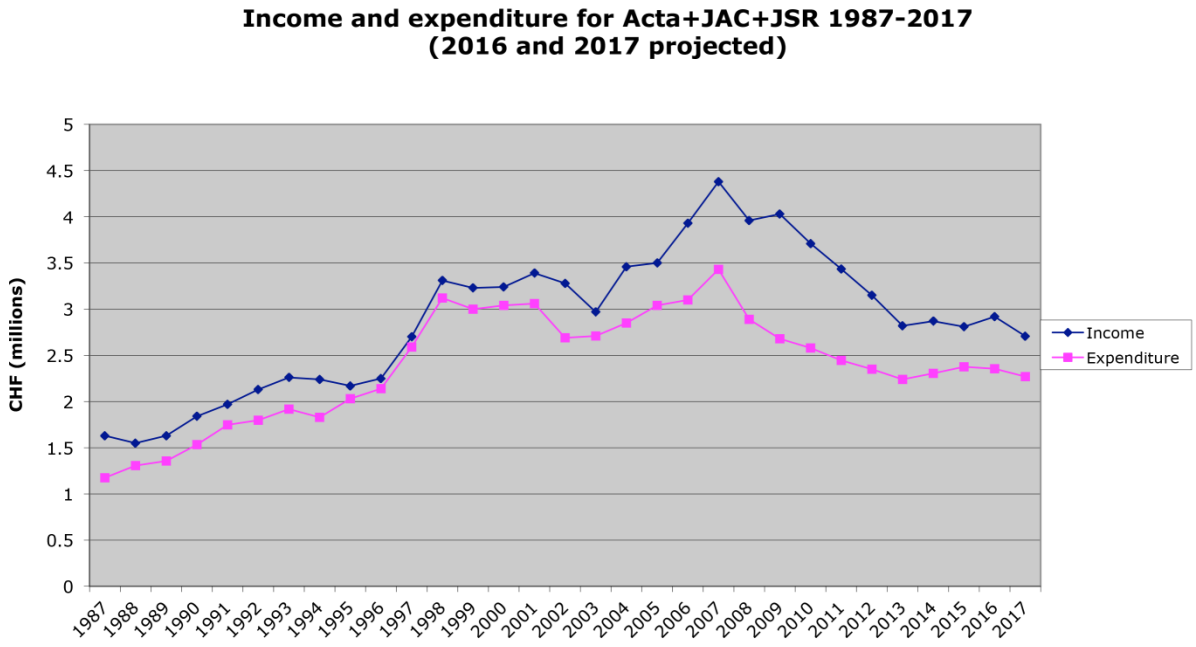
11. BUSINESS DEVELOPMENT

Johnathan Agbenyega will report on any business development aspects not already covered in the agenda.

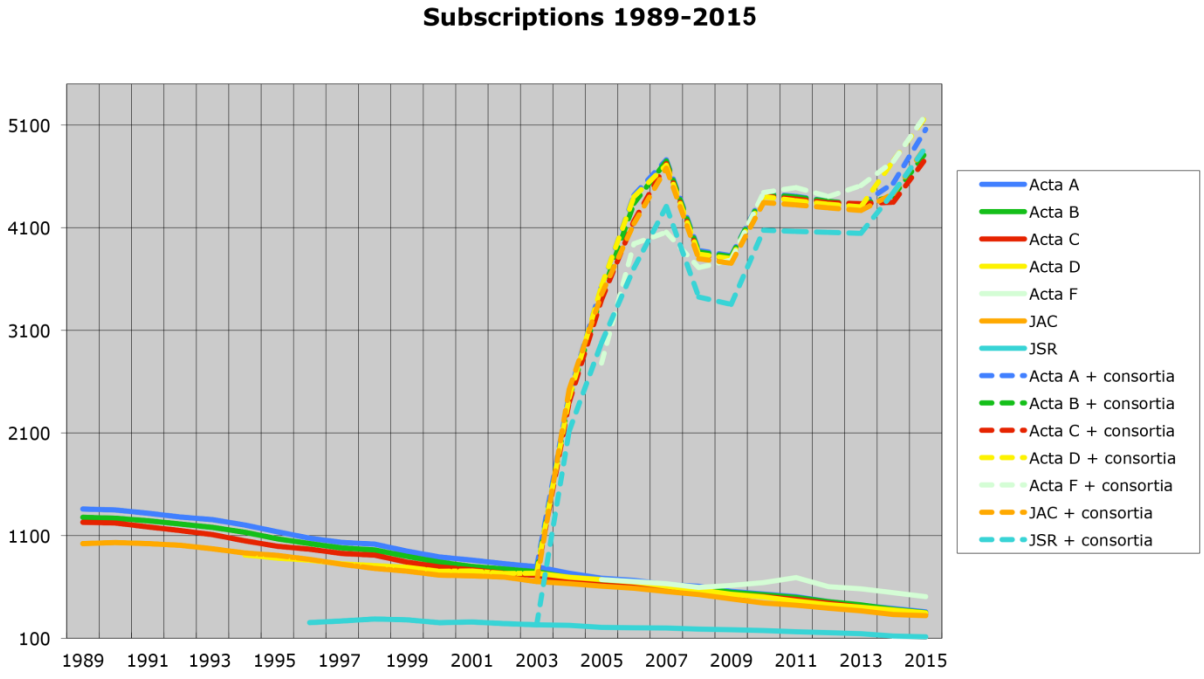
11.1. Financial situation

The IUCr is currently in a difficult financial situation. Its overall operations showed a deficit of about USD 500000 in 2015. Ideas for new revenue streams, and also for cutting costs, were discussed at the IUCr Finance meeting.

The journals continue to make a small profit (see the graph below). However, the subscription income is currently static, and given the nature of the consortial arrangements we have, is unlikely to increase significantly moving forwards.



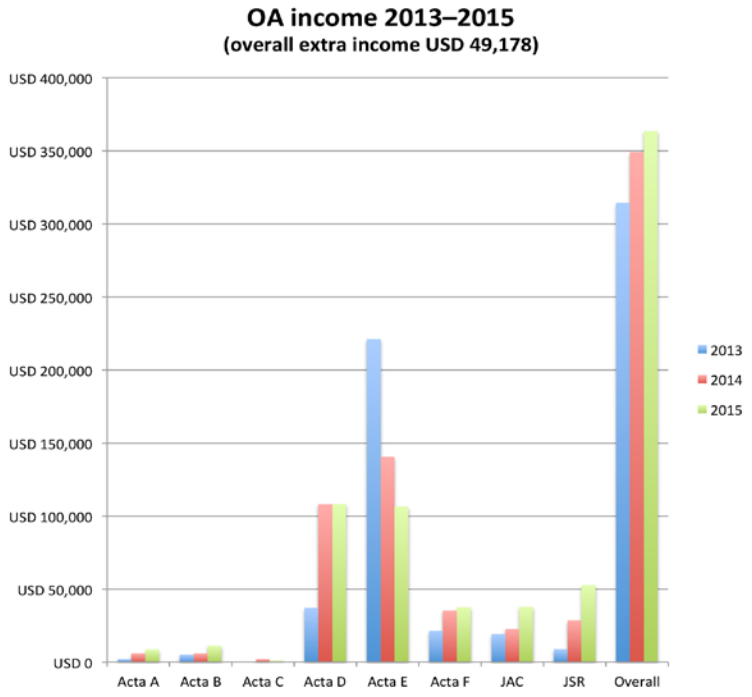
A graph of the number of subscribers to the journals is shown below. The number of subscribers has decreased by 3-5 percent per annum over the last 20 years. However, from 2004, when the IUCr started to take part in consortial deals, the number of libraries that can access the journals has increased substantially, as libraries that have taken out a Wiley consortial deal can now access the journals.



For 2017, the general journal price increase will be 4% above the average price increase applied by Wiley to their other journals.

11.2. Open access

In addition to subscription revenues, the IUCr also has significant revenues from open access. The 2012 decision to discontinue coverage of *Acta Crystallographica Section E* in the Science Citation Index has had a significant effect on these revenues, and, as can be seen from the plot below, the revenues from *Acta E* were again down for 2015.



However, the plot also illustrates that we were able to grow the open-access revenues for our hybrid journals in 2015. As a result there was a small increase in overall open-access income for 2015.

A clear goal over the next few years is to continue to grow our open-access revenues. In 2015, we provided vouchers for discounted open-access fees to authors and reviewers to try to boost take up of open access, and we plan to continue such promotions in 2016 and 2017.

A comparison of our prices with publishers who are publishing open-access articles in similar fields to our journals (see below) was discussed at the March 2016 meeting of the IUCr Finance Committee. It suggested that there was some leeway to increase our prices. The price differences within a publishers' portfolio (see below) may be linked to the standing of the journal, the type of journal (e.g. research journal versus review journal), the impact factor of the journal, article length, uptake of open access in a particular subject area *etc*.

Publisher/publication	Open-access fee (USD)	Fully open access or hybrid?
American Chemical Society	5000	Hybrid
BioMed Central	705-2770	Open access
Cambridge University Press	600-2700	Hybrid
Elsevier	100-5000	Hybrid
IUCr	100-1200	Hybrid
MDPI	155-1855	Open access

Publisher/publication	Open-access fee (USD)	Fully open access or hybrid?
Nature Publishing Group	1075-4525	Hybrid
PLOS	1350-2900	Open access
PNAS	1000-1350	Hybrid
SAGE	750-3000	Hybrid
Springer	3000	Hybrid
Taylor & Francis	500-2950	Open access
Wiley	800-4500	Hybrid

The Finance Committee decided to increase the open-access fees as follows from 1 June 2016.

Journal	Current OA fee (USD)	New OA fee (USD)
IUCrJ	1000	1200
Acta Crystallographica Section A: Foundations and Advances	1000	1200
Acta Crystallographica Section B: Structural Science, Crystal Engineering and Materials	1000	1200
Acta Crystallographica Section C: Structural Chemistry	1000	1000
Acta Crystallographica Section D: Structural Biology	1200	1200
Acta Crystallographica Section E: Crystallographic Communications	165	200
Acta Crystallographica Section F: Structural Biology Communications	1000	1000
Journal of Applied Crystallography	1000	1200
Journal of Synchrotron Radiation	1000	1200

Questions for discussion:

The IUCr were pioneers in the field of open access: how can we capitalise on this and continue to encourage and forge new thinking in the field of open document sharing?

How can we boost open-access uptake by authors?

11. 3 Article processing charges

At acceptance, authors often ask how much they have to pay and are surprised when there are no article charges. Given the growth of green open access (*e.g.* requirements for articles to be deposited in funder repositories) combined with flat subscription revenues, the IUCr Finance Committee has asked us to trial article charges on our hybrid journals.

In considering page charges, we surveyed policies of related journals/publishers. Some of the policies are summarised below.

Publisher/publication	Comments
PNAS	Publication charges for *Regular Research articles* are USD 1550 per article and for *PNAS Plus articles* USD 2150 per article
FASEB Journal	Publication charges are USD 199 per printed page. Supplemental units uploaded to the journal web site are USD 199 for each unit

Journal of Neuroscience	Publication charges for *Regular Manuscripts* are USD 1260 (for members) and USD 1890 (for non-members) and for *Brief Communications* USD 615 (for members) and USD 925 (for non-members)
Journal of Biological Chemistry	Publication charges are USD 80 per journal page (for members) and USD 90 (for non-members)
Wiley/Evolution	Publication charges are USD 55 per journal page; authors without access to funds may request a waiver
OUP/Bioinformatics	Publication charges are USD 190 per excess page (over stated page extent for a particular article type)
Springer	For the majority of Springer journals, publishing an article is free of charge.
Nature	No page charges

Based on this information, the Finance Committee asked us to trial an article processing charge of USD 200 on *Acta Crystallographica Sections A*, *B* and *D*, *Journal of Applied Crystallography*, and *Journal of Synchrotron Radiation*, with the following conditions:

- A waiver could be applied for under the same rules used for open-access waivers.
- Fees could be reduced for IUCr Associates (see also Section 11.10).
- Where an author takes the gold open-access option, the article processing charge would be included in the open-access fee.

11.4. IUCr Data

The decision by Thomson Reuters to exclude *Acta E* from the *Science Citation Index* in 2012 has had a profound adverse effect upon the number of articles published in the journal (4444 in 2011, 1964 in 2013, 1336 in 2014, 1168 in 2015) and the consequent income from open-access fees. The Commission on Journals has adopted the strategy of seeking reindexing of *Acta E* through soliciting longer-format articles and, from the start of 2016, discontinuing the publication of very short structure reports in the journal.

To cover these short structure reports, the IUCr has launched a new service, entitled *IUCrData*. Within *IUCrData*, the structure reports are characterised as 'data publications' as distinct from 'journal articles'. *IUCrData* is seen as an umbrella under which the idea of 'data publishing' can be expanded as a distinct activity of the Union.

Progress with *IUCrData* will be reported.

11.5. IUCr Newsletter

This item is included to allow a discussion of how best the journals can work with the IUCr Newsletter.

The Newsletter is to be updated and restructured over the next 1-2 years. The objective of the project is to ensure that the Newsletter continues to be a flagship publication reporting on all Union activities and those of its adhering bodies and constituents, and is also financially sustainable.

Questions for discussion:

How do we best report on journal content in the Newsletter?

11.6. Webinars

A series of educational and instructional webinars are currently in development. It is intended to build a new educational webinar product line, adding new content to our current online teaching and training offering, with the opportunity to tie-in journal content to new supplementary learning material and services.

These web-based seminars provide an excellent and cost effective vehicle to reach either a global or region-specific audience through key opinions and insight from leaders in industry and academia.

The webinar programme will also create a much needed new revenue stream for the Union.

The webinars in preparation are given below.

14 July 2016 Protein crystallisation screens/Dr Fabrice Gorrec, MRC Laboratory and Molecular Dimensions

29 September 2016 Protein crystallisation screens/Professor Naomi Chayen, Imperial College London

12 October 2016 A new theory for X-ray diffraction/Dr Paul Fewster, PANalytical

26 October 2016 High pressure topics in crystallography/Professor Ross Angel, Padova University, or Professor Andrzej Katrusiak, AMU and Mathias Meyer, Rigaku

22 November 2016 Charge density studies of organic molecules/Professor Krzysztof Wozniak, University of Warsaw and Mathias Meyer, Rigaku

X-ray crystallography webinar series (planning meeting 23/24 November 2016)

Theory

Event 1 - Crystals and symmetry (Professor Mike Glazer)
Event 2 - Theory of scattering (Professor Simon Billinge)
Event 3 - Structure solution and refinement (Professor Simon Parsons)

Practice

Events 4 and 5 - Practical demonstrations (Dr Simon Coles)
Event 6 - Setting up a lab and teaching (Dr Simon Coles)

11.7. Interviews

A series of editor and author audio interviews will feature our Main and Co-editors and noteworthy authors in short five minute sound bites that are intended to act as an inspiration to young crystallographers and provide a background to the activities of the Union. Interviews will take place over the phone. It is hoped that in time, as the number and popularity of these interviews increases, we will be able to secure a sponsor for the collection of interviews.

11.8. World Directory of Crystallographers

The aim is to build a community platform to improve engagement of World Directory members and to allow access to experts from across the globe in order to exchange new ideas and solve current problems. In short, an online community for anyone with an interest in crystallography, connecting them with chemists, material scientists and others from around the world via the community groups, blogs and forums.

The WDC will also act to manage and track Associates of the IUCr, the new programme for individuals to become affiliated to the Union (see Section 11.10)

11.9. Media kit

A copy of the 2016 IUCr media kit is available at

http://journals.iucr.org/services/media_kit.html

Media kit information is sent to new and existing advertisers with follow-up telephone conversations and face to face meetings at conferences. The kit provides an introduction to the various opportunities that are available to commercial and other organisations interested in advertising and working with Union in other ways.

Questions for discussion:

Can you think of any incentives to encourage advertisers to spend their money with the journals?

Can you think of any additional advertising opportunities for commercial organisations to partner with our journal content?

11.10. Associates Programme

The IUCr Associates Programme has been given the go-ahead by the IUCr Executive Committee. The programme will offer the opportunity for closer community collaboration with the Union, and will give individuals a much closer connection to the Union and its many activities. Benefits for Associates will include a 20% discount on open-access charges, a 20% discount on other article charges and a voucher to access five articles per year on journals.iucr.org

Questions for discussion:

How can the journals work with the Associates Programme?

Can you suggest any additional benefits for Associates?

12. JOURNALS PROMOTION

12.1. Promotion of the journals

A summary of the journals promotion work carried out by the Business Development Manager and the Promotions Officer will be given at the meeting. The Business Development Manager is interested to hear any ideas that the JMB have that would help in the promotion of the journals. The Business Development Manager will cover areas such as the importance of social media, online news portals that specialize in news related to crystallography, how authors can improve the visibility of their work and how they can measure the success of their paper in the wider community.

Questions for discussion:

Is printed promotional material an effective way of promoting journals?

Is going to meetings the best way to promote your work?

Is having a stand at meetings important or is it better to just meet with authors?

12.2. Providing a good service for authors

Our focus as an open-access publisher has to be on authors and attracting high-quality papers. We aim to make submission and publication in IUCr journals as rapid and easy as possible, but what else can we do for authors?

In this context it would be useful to know what Journals Management Board members think is important when they are publishing one of their own articles.

Questions about your publishing activity:

Where do you publish your papers and why?

What do you like about IUCr journals?

What do you like about competitor journals?

What would encourage you to submit more of your work to IUCr journals?

What are IUCr journals' points of difference that would make us attractive to top authors?

What promotional activities work for you when considering a new journal or going back to one you have not published in for a while?

Is there anything you dislike about IUCr Journals?

12.3. New scientific areas

It is important that we remain aware of new scientific areas and developments and try to serve authors in such areas.

Questions for discussion:

Are there any new scientific areas that IUCr Journals should explore?

Should we ask IUCr Commissions if they have ideas for new scientific areas?

12.4. Meetings for 2016-2017

For 2016, a small number of meetings have been selected at which IUCr Journals will have a stand and will also organise an activity for delegates. These meetings and other meetings where we will distribute promotional materials are listed in APPENDIX F.

This information is also given for planning purposes on a web page at

http://journals.iucr.org/services/meetings_2016.html

All publishers, including our partner Wiley, are now rethinking what promotional material they send to meetings as well as which meetings they will send material to and which they should attend in person. Many niche meetings (with fewer than say 300 delegates) are no longer being supported. Traditional flyers and marketing material are much less popular than a decade ago, and delegates are not taking such material away with them. Rather delegates prefer to consume data electronically.

We have also started to work with the organisers of the next IUCr Congress to work out how best to promote the journals during the Congress. For example, we plan to link each electronic poster at the meeting with 'similar articles' published in IUCr Journals. We will also make all journal content freely available to attendees throughout the Congress.

Questions for discussion:

What types of promotions at meetings have you found interesting?

Typically how many meetings would you attend in a year and what would your decision process be in terms of choosing which meetings to attend?

In marketing our journals, we aim to use electronic means of dissemination to keep our costs down: have you seen any electronic campaigns that have struck a chord with you?

Can you think of other (cost effective) ways to improve our visibility within the community?

13. TOOLS AND TECHNICAL DEVELOPMENTS

13.1. Tools

Over recent years, IUCr Journals have developed a number of tools for authors. These include

- *publBio*, the online authoring and submission tool for structural biology papers
- *publCIF*, a desktop application for writing research articles
- Word and LaTeX templates for articles
- A tool for preparing interactive figures

These tools are quite well used by the community but could be publicised more. Likewise, some features of our online systems, *e.g.* interactive 3D figures, chemical similarity searching, online glossaries and powder data plotting, are not well known. Any thoughts about how we could publicise these services further would be helpful.

Ideas suggested at previous JMB meetings

- We need to make sure that any tools are easy to find on the web and have good online guidance.
- YouTube videos could be useful in explaining the features of *publCIF*, *publBio etc*.

13.2. Technical developments

13.2.1. Journals web site

The new journal web site was launched in September 2015. The design is 'responsive' and flexible, and should work well on desktops as well as on mobile devices. Emphasis has been given to journal subtitles in page and article headers.

Journal home pages have areas highlighting important recent articles, and at the foot of the page a tabbed section gives information on 'Most recent', 'Most cited', 'Most read' and 'Highlighted articles'. Special issues and other such content is shown in the sidebar of the journal home pages. There are also relevant newsfeeds (with news, jobs and announcements) in the side bar, and areas where additional features can be included. Other non-article pages have a main page body and a side bar for related content.

Journal articles have a simple linear format to make them easy to read. They will also include integrated 'supporting information'.

A demonstration of the web site and new developments will be given at the meeting.

Questions for discussion:

What additional features and information would editors like to see in the web pages?

What are the most useful features for readers of journals?

13.2.2. ORCID identifiers

ORCID is an open, non-profit, community-based effort to provide a registry of unique researcher identifiers and a transparent method of linking research activities and outputs to these identifiers. We have recently implemented a mechanism in the submission system to allow authors to verify their ORCIDs and link these to their articles.

Questions for discussion:

Are any members of the JMB currently using ORCID IDs?

13.2.3. Funding Data

The Funding Data (previously Fundref) service provides a standard way to report funding sources for published scholarly research. It is facilitated by Crossref by encouraging collaboration between funding bodies and scholarly publishers. We have undertaken a small pilot on Funding Data and some *IUCrJ* articles show funding information where available. We plan to provide a mechanism for authors to provide funding information in due course.

14. IUCr DEVELOPMENTS AND OUTREACH

At the Montreal Congress, a legacy fund was established to support the continuation of the initiatives that took place during IYCr2014. The fund has now been named as the “IUCr Outreach and Education fund”. Voluntary donations can be made online via PayPal. All those who receive an honorarium from the IUCr have been asked whether they might be willing to donate part of their honorarium to the IYCr Legacy Fund. We received a very generous response from Editors and Co-editors of the journals, and so far over $100000 has been raised for the fund. We would like to thank everyone who has made a donation to this valuable cause.

The IUCr outreach fund is aimed at supporting a number of initiatives. Examples include the OpenLabs that have been held in many countries (and have proved to be a great success and are doing much to promote crystallographic education in the developing world) and the various projects that have been outcomes of the three summit meetings in Asia, Latin America and Africa. Moreover, the IUCr Outreach programme will support events directed at the general public, the younger generation and the media, and initiatives to forge collaborations with governmental, scientific and educational institutions to facilitate strategic projects for the development of crystallography.

Question for discussion: how can IUCr Journals be involved in the outreach and education programme?

15. MEETINGS/WORKSHOPS IN HYDERABAD

This item is included to allow discussion of what journals meetings might be organised in Hyderabad and also if we should consider workshops for authors, reviewers *etc*. Note that the next JMB will be in Hyderabad (see item 17).

16. ANY OTHER BUSINESS

Additional items suggested for discussion are listed in APPENDIX G.

17. DATE AND PLACE OF NEXT MEETING

The next meeting of the Journals Management Board is scheduled to take place immediately before the IUCr Congress in Hyderabad, India. The JMB meeting dates are 20-21 August 2017.

18. LIST OF ACTIONS

A list of items for action from the meeting will be checked and agreed.

APPENDIX A
Actions from the 2015 JMB meeting

Completed items are highlighted in green and ongoing ones in magenta.

Action No.	Action	Status/timetable/comments
1	Ask that Commission reports include a statement on how the Commission is interacting with the journals (Executive Secretary, for 2015 reports)	DONE
2.	Circulate mailing list e-mail addresses for editorial boards (Editorial Office, summer 2015)	DONE
3.	Add button for Co-editors to flag papers worth highlighting (R&D, by end of 2015)	INSUFFICIENT DEVELOPMENT TIME AVAILABLE
4.	Explore creation of FEL facilities pages for IUCrJ (Editor-in-chief, Spence, Ishikawa, Chapman, Editorial Office, R&D, Business Development Manager, summer 2016)	ONGOING
5.	Explore creation of neutron facilities pages for JAC (Main Editors, Editorial Office, R&D, Business Development Manager, summer 2016)	ONGOING
6.	Do more work with facilities to promote beamline papers for JSR (Main Editors, Editorial Office, ongoing)	ONGOING
7.	Investigate the possibility of virtual collections by facility or instrument for JSR (Editorial Office, R&D, by summer 2016)	PROTOTYPE AT http://journals.iucr.org/m/services/facilities_fels_sacla.html
8.	Suggestions for a Main Editor from Asia for JSR (Main Editors, Editorial Office, early 2016)	Amemiya appointed
9.	Chester to circulate list of those due to retire at next Congress (Editorial Office, by autumn 2015)	DONE
10.	Publish an Editorial with a new IUCr Journals manifesto for the 21st century to coincide with 100th anniversary (Editor-in-chief, publication 12 November 2015).	PUBLISHED
11.	Look further into the development of workshops and presentation opportunities at meetings (Main Editors, Editorial Office, Business Development Manager, November 2015)	ONGOING (workshop at ACA Denver, more will be done for Congress)
12.	Identify which meetings we want to send material to, which meetings our editors may be attending and which the	ONGOING

Action No.	Action	Status/timetable/comments
	Editorial Office should attend (Main Editors, Editorial Office, Business Development Manager, November 2015)	
13.	Circulate the above guidelines for using referees by e-mail and update the Co-editor Handbook (Editorial Office, summer 2015)	DONE
14.	Reminders to be extended in the automated system and direct author/reviewer chasing investigated (Editorial Office, end of 2105)	INSUFFICIENT DEVELOPMENT TIME AVAILABLE
15.	Circulate information on how other publishers (*e.g. PNAS*) handle resubmission (Editorial Office, by summer 2016)	SEE MEETING NOTES SECTION 6.2
16.	Monitor developments in area of reviewer recognition and discuss again next year (Editorial Office, summer 2016)	ONGOING
17.	Propose ways to get all those involved in the publication of an article (authors, editors, reviewers) to think more carefully about titles, abstracts and keywords (Main Editors, Editorial Office, autumn 2015)	Note for Authors updated
18.	Provide the chance for an author to supply a tweet during submission (R&D, by spring 2016)	INSUFFICIENT DEVELOPMENT TIME AVAILABLE
19.	Explore implementation of a significance statement (R&D, by spring 2016)	VIA KUDOS
20.	Work to develop a graphical scope for Acta B (Main Editors of Acta B, Editorial Office, summer 2016)	SEE MEETING NOTES SECTION 3.6
21.	The IUCr will work on a (not live) demo page and presentation in time for the Executive Committee meeting (Editorial Office, August 2015)	DONE
22.	Collect contact details for authors' press offices (Business Development Manager, R&D, ongoing)	ONGOING
23.	Make sure that related papers are offered on article and article 'landing' pages (Editorial Office, R&D, ongoing).	ONGOING

APPENDIX B

Annual journal reports

Acta Crystallographica Section A

	2010	2011	2012	2013	2014	2015
No. of submissions	100	134	143	97	119	95
Rejection rate (%)	40	40	33	39	32	27
No. of published papers	81	68	83	71	72	70
research papers – foundations advances	66	56	64	58	52 4	47 8
short communications	3	5	5	1	4	3
lead articles	1	0	0	0	0	0
feature articles	1	0	1	0	0	1 (advances)
editorial	3	0	0	2	1	2
commentaries					2	2
abstracts	734	2087	527	599	1832	789
other	7	7	13	10	9	7
No. of open-access papers	2	6	3	4	4	9
No. of pages	724	565	787	623	686	630
Average length (pages)	9.8	9	10.2	9.6	10.8	10.1
Average publication time (months)	5.7	4.7	5.1	5.3	5.7	4.8
Impact factor	54.33	2.07	2.24	2.07	2.33	
5 year impact factor	24.72	30.65	18.32	17.24	2.26	
Cited half life (years)	6.2	3.9	>10.0	>10.0	>10.0	

The first issue of 2015 started with an Editorial, *Celebrating the past, looking to the future.* In this we reiterated our plans for *Acta A*, explaining the aims of the new *Advances* section and emphasizing the fact that we are adopting higher standards for acceptance of articles across the board. In particular, beyond just describing a development, it is our aim that each article should identify the rationale for making the development and how it would be used by the crystallographic community.

Eight *Advances* papers were published during 2015: *SHELXT – Integrated space-group and crystal-structure determination* (G. M. Sheldrick); *Nuclear-weighted X-ray maximum entropy method – NXMEM* (Christensen *et al.*); *Diffuse multiple scattering* (Nisbet *et al.*); *Partial order among the 14 Bravais types of lattices: basics and applications* (H. Grimmer); *Identification of inversion domains in KTiOPO4 via resonant X-ray diffraction* (Fabrizi *et al.*); *Interpretation of angular symmetries in electron nanodiffraction patterns from thin amorphous specimens* (Liu *et al.*); *Solution of the phase problem at non-atomic resolution by the phantom derivative method* (C. Giacovazzo); and *Complex*

modeling: a strategy and software program for combining multiple information sources to solve ill posed structure and nanostructure inverse problems (Juhás *et al.*). These give a feel for the breadth of topics covered by the journal.

We also published a Feature Article on *MicroED data collection and processing* (J. Hattne *et al.*), which was highlighted in the Scientific Commentary *Accessible atomic structures from sub-micron protein crystals* by J. A. Rodriguez. Howard Flack explained the utility of Grimmer's approach to order among the Bravais lattices in his Commentary *The revival of the Bravais lattice.* A Lead Article on *Computation in electron microscopy* by E. J. Kirkland was also made available online by the end of year as part of the January 2016 issue.

Several articles were highlighted on the new web page for Acta A, some with accompanying news items (written for a more general audience) on the IUCr home page. Our press releases were appreciated by authors and their institutions alike, and were picked up by several other publications. The number of people following us on Twitter also increased during the year.

A Special Issue on *100 years of the Debye Scattering Equation*, following the conference of the same name held in Trentino, Italy, 14-18 June 2015, is in preparation for 2016.

We would like to thank all our Co-editors for the time and effort that they devote to the journal, and in particular Vaclav Petricek, who retired from the Editorial Board during the year.

S. J. L. Billinge and J. Miao, Editors

	2010	2011	2012	2013	2014	2015
No. of submissions	96	121	112	167	126	157
Rejection rate (%)	40	40	34	36	28	32
No. of published papers	73	57	79	73	117	93
research papers	71	52	67	63	98	72
short communications	0	1	4	3	6	3
lead articles	0	0	0	3	1	0
feature articles	1	1	1	0	2	5
editorial	0	0	0	1	2	2
commentaries	0	0	0	0	3	5
other	1	3	7	3	5	6
No. of open-access papers	3	5	0	6	8	9
No. of pages	706	581	685	633	1036	813
Average length (pages)	9.8	10.7	9.6	9.3	9.7	9.5
Average publication time (months)	5.2	4.6	4.7	4.9	5.7	4.5
Impact factor	1.83	2.29	2.18	2.10	2.18	
5 year impact factor	2.03	2.00	1.89	1.83	2.21	
Cited half life (years)	>10.0	>10.0	>10.0	>10.0	>10.0	

During 2015 the journal published a Special Issue on Energy Materials with Guest Editors Simon Parsons, Richard Walton and Karena Chapman. This was the third in the current series of Special Issues following the publication in 2014 of one on Crystal Engineering (Guest Editor Andrew Bond) an another on Non-ambient Crystallography (Guest Editors Dave Billing and Andrzej Katrusiak). By the end of 2015, a fourth Special Issue on Crystal Structure Prediction (Guest Editors Graeme Day and Carl Henrik Görbitz) was underway and an associated “must-cite” article on the Cambridge Structural Database was anticipated. Special Issues form a crucial part of our strategy to promote the message of the widened scope of the journal. They were largely responsible for a 64 % increase in the number of full articles published from 66 in 2013 to 102 in 2014 (the number of pages published rose from 633 to 1036). Interestingly, although we only published one Special Issue in 2015, resulting in fewer articles and pages than 2014, the number of submissions to the journal actually rose from 126 in 2014 to 154 in 2015. All Special Issues require substantial time and effort on the part of the Guest Editors and we are extremely grateful to them for all their work. Further Special Issues are underway for 2016–2017, including Minerals and Related Materials (Guest Editors Sergey Krivovichev, Stuart Mills and Janusz Lipkowski) and Ferroelectric and Multiferroic Materials (Guest Editors include Pierre Bordet) and Halogen Bonding (Guest Editors Pierangelo Metrangolo and Mate Erdelyi).

In 2014 the journal introduced a new category of article, the Research Perspective, where the main or sole author is an established leader in a particular field and such articles are expected to review the development of that field, with a strong focus on the author’s own contributions to its development. The journal will normally publish a maximum of one article in this category per annum. We are currently assessing proposals for the next Research Perspective.

The journal published five Feature articles in 2015:

`Synergy between transmission electron microscopy and powder diffraction: application to modulated structures' (Batuk *et*

al.); `Pressure-induced structural phase transformation in cobalt(II) dicyanide' (Yakovenko *et al.*); `Aperiodic crystals and beyond' (Grimm); `Charge density and optical properties of multicomponent crystals containing active pharmaceutical ingredients or their analogues' (Gryl); `Structural studies of metal-organic frameworks under high pressure' (McKellar & Moggach). We continue to target prominent conference speakers as possible authors of these articles.

Commentaries (five in 2015) on some exceptional articles are now appearing more regularly at the front of the journal, and other articles have been highlighted by means of regular news features on the IUCr homepage. In common with other IUCr journals, the homepage for *Acta B* was redesigned in 2015, allowing more extensive coverage of recent news items and to highlight outstanding articles and the most cited papers from the journal. We continue to look for new and better ways to promote these outstanding contributions.

We have initiated a new category of Article, the Opinion piece, where we invite an author to tackle possibly controversial topics: in 2015 Christer Aakeröy (Kansas State University, USA) asked "Is there any point in making co-crystals?". We have invited Birger Dittrich (Göttingen, Germany) to write on "Are charge density experiments still worth doing?" and Peter Stephens (Stony Brook, USA) on "Can we trust powder diffraction?". We hope this type of article will stimulate debate and attract attention.

Acta B is well established as a publication route for work in fields such as high-pressure crystallography and aperiodic structures, and we are working to expand our coverage, including in crystal engineering and materials science. The journal will be represented at a number of scientific meetings in 2016, including the 66th Annual American Crystallographic Association meeting in Denver, USA, and the 30th European Crystallographic Meeting in Basel (Switzerland).

We are delighted to welcome Dr Francesca Fabbiani (Göttingen, Germany) to the *Acta B* board: Francesca brings expertise in areas such as high pressure science, crystal growth and solid-state polymorphism. Andrew Bond (Cambridge, UK) has recently retired as a co-editor and we thank him for his many contributions to *Acta B*, not least for being Guest Editor on our Special Issue on Crystal Engineering. Other co-editors are due to retire by the end of the triennium and the important task of covering their areas of expertise and expanding into new areas is underway.

A.J. Blake and M. de Boissieu, Editors

	2010	2011	2012	2013	2014	2015
No. of submissions	592	479	504	609	479	407
Rejection rate (%)	53	50	49	41	50	52
No. of published papers	284	239	232	354	238	198
research papers	280	234	229	345	231	194
feature articles	0	0	0	0	0	2
editorial	0	2	2	4	2	1
commentaries					0	0
other	4	3	1	5	5	1
No. of open-access papers	1	0	0	0	1	3
No. of pages	1134	993	984	1566	1180	1117
Average length (pages)	4	4.2	4.2	4.5	5.0	5.7
Average publication time (months)	1.9	2	2	2.1	2.1	2.2
Impact factor	0.75	0.52	0.49	0.54	0.33	
5 year impact factor	0.63	0.44	0.4	0.44	0.32	
Cited half life (years)	>10.0	>10.0	>10.0	>10.0	>10.0	

As part of our ongoing attempts to raise the prominence of Acta Cryst. C, we published two key papers early in 2015: the SHELXL and PLATON papers, which are well read and will be highly cited. We anticipate that this should provide a temporary big boost to the impact factor, starting in 2017, and will help attract better papers and maybe kick-start the journal into the format it is striving to have. However, it is worrying that Thompson-Reuters so far seems not to be counting the SHELXL (or SHELXT) paper properly in its statistics, despite us querying the matter. A similar paper highlighting the CRYSTALS software has just appeared in the journal (April 2016). The editorial on the Coordination Polymers Virtual Issue (mid-2014) is highly read, which suggests that perhaps a good editorial or comment/brief review on the right topics, might attract attention, although it might not be cited so often.

Recently, the long-awaited review panel was inaugurated with over 60 members. The availability to co-editors of people who have committed to review papers regularly should alleviate some of the difficulties experienced over recent years in finding expert reviewers who respond promptly, if at all. The current team of co-editors is working very well and we are most appreciative of their efforts.

As usual, we are very grateful for the energy and contributions of all Chester staff. Sean Conway recently started adding relevance-related statements to the abstracts by taking appropriate sentences from the paper introduction. Authors seem happy with that approach and it is working better than past attempts to require authors to include such statements in the abstracts themselves.

Unfortunately, the journal's impact factor decreased significantly in 2015, despite the three special issues at the end of 2013, which should have had the opposite effect. The current prediction for this year's IF is more in line with the average

over recent years. The average number of submissions each month has returned to a steady decline and is lower now than at any time over the last 15 years. Our rejection rate remains around 50%, because many submitted papers are still brief and more suited to Acta E. This is a pattern that has been ongoing ever since the inception of Acta E. The new style of Acta E is now more suited to the sorts of papers C once used to publish, which is fine if we are attracting more of the fuller chemistry-related papers, but a problem while we are not. In reality, we are receiving less papers that are suitable for the journal, and even fewer that properly fit the remit of what we ideally wish the journal to be publishing. Perhaps there is a slight trend towards the papers containing more chemistry, and certainly the average length of C papers has increased slightly, but even these papers are often quite far away from presenting much more than some synthesis details and then analyses of the presented structures. On the other side, we are trying to be more like Acta B, with just a different focus area, but in some ways this may be limiting what C can do and a few papers that have appeared recently in B could equally well have fitted into C.

After the success during 2013 in getting a few special issues off the ground quickly, this momentum has rather run out. The NMR crystallography special issue has taken a lot longer to get going than we had hoped, mainly because of personal events surrounding the guest editors. However, with a new guest editor replacing one of the earlier ones, this issue now seems to be well on the way and we hope to publish it this year with possibly up to 25 papers. It is a pity this became delayed, because a lot of interest has developed in this field in the meantime and some other journals have beaten us to it. We will also have another special issue on Scorpionates later this year, to celebrate a golden anniversary in this field; Glenn Yap suggested this and is the guest editor. The prognosis is that there might be around 15 papers.

The planned special issue on catalysis had to be abandoned, because insufficient chemists could be enticed to contribute. The reason often given is that Acta C has a low impact factor and is simply not on the radar of colleagues in the field, so they prefer to publish in journals that their colleagues are reading. It is very difficult to counter this entrenched view.

Some ideas for other special issues met with frustrations at finding a guest editor. One observation is that the invitees, while maybe being interested initially, baulk at the prospect of having to do all of the paper-handling work themselves. It seems they are happy to lend their name to the issue, and maybe supply a list of potential authors and write an editorial, but that all of our normal co-editor type work should be handled by office staff (or other co-editors?), as seems to be the norm at other journals (so they say). Maybe IUCr Journals has to consider if the current modality of handling of papers, in particular special issue papers, is consistent with current practices in an era where the essentially volunteer guest- and co-editors we rely upon have many more constraints on their time than perhaps 20 years ago. We lost one of the original NMR issue guest editors for this reason, and probably most prominent people are so busy, they are unwilling to take on even more work. Related to this, I think it is asking a lot these days if we expect a journal to have less co-editors who handle more papers. Whereas many C co-editors 20 year ago seemed to be able to handle five papers a month, many of the current co-editors struggle to cope with more than two.

In summary, we feel it is our responsibility to indicate that the journal still seems to be in steady decline and that the measures put in place over the last few years do not appear to have yielded much fruit so far. Our feeling is that, given the way Acta E has had to develop in order to attain indexing again, there is one too many journals in the B/C/E flock for the small-molecule community, not even considering IUCr Data. Can we afford to wait until 2017/8/9 to see if the impact factor increase (assuming we are not stymied by Thompson-Reuters again) attracts more papers of the type we need in C?

A. Linden and P. R. Raithby, Editors

	2010	2011	2012	2013	2014	2015
No. of submissions	201	239	340	433	429	272
Rejection rate (%)	22	26	29	27	32	27
No. of published papers	167	131	193	274	297	239
research papers	148	119	173	250	280	230
short communications	11	5	8	9	3	0
feature articles	0	0	0	1	2	1
editorial	4	0	2	2	0	1
commentaries					1	1
other	4	7	10	12	11	6
No. of open-access papers	37	27	39	78	100	84
No. of pages	1354	1077	1700	2584	3329	2542
Average length (pages)	8.7	8.8	9.4	10.1	10.9	10.8
Average publication time (months)	5.1	4.0	5.1	5.5	5.5	5.2
Impact factor	6.33	12.62	14.10	7.23	2.68	
5 year impact factor	4.10	7.04	7.54	9.41	9.59	
Cited half life (years)	9.0	6.9	6.6	5.4	5.0	

As anticipated, the Acta D journal impact factor has dropped over the past few years; this metric was artificially high due to a few exceptionally highly cited methods papers a few years ago. The statistics table shows that the number of submissions to Acta D appears to be correlated with the impact factor, though with a year or so delay. At the 2015 JMB, we discussed the flawed metric of impact factor, recommending that we use median not mean, but we recognise that a universal change to the median is out of our control.

Notwithstanding, we have been working to increase impact of the journal by expanding the scope - with a concomitant change in name (to Acta D Structural Biology from Acta D Biological Crystallography). In terms of the expanded scope, in 2015 we published a CCP4 proceedings on complementary methods that included papers on SAXS, sometimes in combination with fibre diffraction or DEER spectroscopy, and a paper describing the structural results of sub-tomogram averaging. We wrote an editorial that highlighted the new scope (published in the January 2016 issue), developed a workflow summary for co-editors, and have been working closely with Acta F section editors to streamline the protocol and processes for transferring between the journals.

The rejection rate of papers has stabilised to a little under a third of papers, which we consider to be a reasonable cutoff. Short communications have dropped off as we have eliminated this category.

Pleasingly, the proportion of open access papers (an author-selected option requiring an additional payment) has increased considerably over the past few years. The percentages in 2010-2012 were relatively static at about 1/5 of accepted papers (20-22%); this rose to 28% in 2013, 34% in 2014 and 35% in 2015 – ie now over 1/3 of papers published in Acta D are open access.

The average publication time for Acta D remains steady at ~5 months, and this is in large part due to factors outside of our control (time required for authors to revise, time required for reviewers to provide their comments).

Our final comment focuses on editor diversity. While the excellent panel of Acta D co-editors represents the span of expertise and geography in our community, we are disappointed that the historic gender imbalance of editors in our sub-discipline remains stubbornly in place (despite our sub-discipline having a long history of high profile women researchers). In our view, it is an urgent priority to re-evaluate the policies and procedures underlying co-editor appointments, to address this imbalance.

Z. Dauter, J. L. Martin, R. J. Read and S. Wakatsuki, Editors

	2010	2011	2012	2013	2014	2015
No. of submissions	5128	5471	4605	2123	1478	1273
Rejection rate (%)	18	19	17	15	13	15
No. of published papers	4113	4444	4047	1964	1336	1168
structure/data reports	4091	4434	4039	1961	1165	768
research communications					164	395
editorial	1	0	0	0	3	0
other	21	10	8	3	4	5
No. of open-access papers	4113	4444	4047	1964	1336	1168
No. of pages	5195	5523	5171	2637	2351	2931
Average length (pages)	1.3	1.2	1.3	1.3	1.8	2.5
Average publication time (months)	0.7	0.7	0.7	0.8	0.8	0.8
Impact factor	0.41	0.35				
5 year impact factor	0.34	0.28				
Cited half life (years)	3.1	3.3				

2015 saw the completion of the transformation of Acta E from Structure Reports Online to Crystallographic Communications. The subtitle was changed in January and the final Data Reports were published in the December issue. The average number of Research Communications published each month rose by 20% compared to 2014 with a total of 395 published in 2015. The average length of a Research Communication also increased (from 3.7 pages in 2014 to 3.9 pages in 2015). We were pleased to see that papers reporting two or more structures are a now regular feature and that more authors are choosing to discuss complementary techniques, making the most of the opportunity to include extra tables and figures in the published paper to illustrate their results and enhance the discussion of the underlying science. We have also noticed the Research Communications format is attracting new authors to the journal and that the range of structures is far broader. The change in subject matter is reflected by the far higher proportion of metal-organic (39%) and inorganic (10%) papers compared to Data Reports where the proportion of organic (80%), metal-organic (19%) and inorganic (1%) papers is much the same as in recent years.

A total of 768 Data Reports papers were published in 2015, down from 1165 the previous year. From January 2016, Data Reports have found a new home in the IUCr's innovative open-access data publication, IUCrData. Publication times still remain low with an average submission-to-publication time of 0.8 months.

Although there was a further fall in submissions from 1478 in 2014 to 1273 in 2015, for the first time since 2011 the number of pages published increased compared to the previous year. The total of 2931 was up 25% on 2014 (2351 pages). As for last year authors from more than 70 countries continue to publish with Acta Cryst E. The six top contributors in 2015 were India (19.7%), USA (11.9%), Germany (7.7%), China (7.2%), South Korea (5.4%) and Japan (5.1%). It will be interesting to see how this profile changes in 2016 when only Research Communications are included.

One of the stated aims of the relaunch of Acta E has been to regain indexing in the Science Citation Index. We are therefore delighted that the journal was included in Thomson Reuters' new Emerging Sources Citation Index (ESCI) when it launched in November 2015. This means that articles published in Acta E can now be found in searches of the Science Citation Index. Importantly, it also means the journal is under consideration for inclusion in the Science Citation Index Expanded. We hope that the final phase of the transformation of *Acta Crystallographica Section E* outlined above

will herald the early re-indexing of the journal.

The pre-review system, whereby the Section Editors preview the submissions to consider the quality of the paper and make sure that it is in the appropriate format, is working well. The system was updated at the end of the year so that the Section Editors now decide if a submission should be published as a Research Communication in Acta E or if it should be transferred, subject to the agreement of the authors, to IUCrData. Often authors wish to see their work published as a Research Communication rather than as a Data Report. In such cases the Section Editors will advise authors on the changes needed to bring their submission up to the required standard, prior to a full assessment in the usual way by a Co-editor. The introduction of a new version of publCIF has made it easy for authors to prepare both types of publication and we must put more emphasis on the use of this software and its functionality to generate the correct format for the submission.

A large part of the success of the new Research Communication and IUCrData formats is down to our dedicated team of Co-editors who are doing an excellent job in advising authors how to promote their science. The Section Editors of Acta E would like to take this opportunity to thank them for helping make Acta Crystallographica Section E Crystallographic Communications the obvious choice for disseminating the results of the excellent crystallography that is being carried out by our authors worldwide. Matias López-Rodríguez and Uk Lee retired as Co-editors during the year, and it is our pleasure to record here our sincere appreciation of their sustained outstanding efforts and their support of the journal.

An Advisory Board was established in 2014 and we appreciate and thank the various members for their continued confidence and support. We are also extremely grateful to the Chester Editorial Office staff for their dedicated support and contributions to the ongoing daily operations of the journal.

W. T. A. Harrison, H. Stoeckli-Evans, E. R. T. Tiekink, L. Van Meervelt and M. Weil, Editors

	2010	2011	2012	2013	2014	2015
No. of submissions	421	401	375	380	411	328
Rejection rate (%)	9	8	9	8	16	34
No. of published papers	377	385	362	335	344	251
research papers	362	365	351	321	339	247
editorial	4	3	3	5	2	2
commentaries					0	0
other	11	17	8	9	3	2
No. of open-access papers	41	42	15	22	36	39
No. of pages	1684	1674	1576	1442	1713	1540
Average length (pages)	4.5	4.4	4.4	4.4	5.0	6.2
Average publication time (months)	3.6	3.9	3.2	2.8	2.9	3.2
Impact factor	0.56	0.51	0.55	0.57	0.52	
5 year impact factor	0.48	0.46	0.49	0.50	0.45	
Cited half life (years)	2.7	3.2	3.5	3.7	4.0	

Our overarching aim is to make Sect. F a highly visible journal for speedy publication of structural biology communications. In an editorial published in December 2014, new guidelines for manuscripts were announced, designed to increase the information content of our papers, to make them more useful to Sect. F readers and to our community as a whole. This editorial was accompanied by an email to all co-editors informing and alerting them of the new guidelines. As a consequence, 2015, Section F's eleventh year of publication, has seen a reduction in the number of submitted manuscripts by about 20%. At the same time, the rejection rate has more than doubled and is now the second highest of all IUCr journals. Taken together, the number of published articles is at a record low with 251. Due to the fact that the average paper length increased by about 20% compared to 2014, the number of pages published is however, only down by 10% compared to the previous year. Despite the submissions all being more detailed, our average publication time has remained steady at around 3 months, due to the combination of excellent contributions from our reviewers including the members of our review board, the diligence of the editorial board and, of course staff at the Chester office. We are also pleased to record an increase in the relative percentage of open access papers, a factor important for visibility, and one in which we hope to improve on further.

Somewhat disappointing has been the limited progress in obtaining review articles or in producing special editions where it has proved difficult to identify special edition editors. For the future then, this is an area in which we need to consider how best to improve engagement with our community. In terms of citations, although the cited half-life of the papers published in F is slowly creeping up, the impact factor remains below 1.0, which has been the target we set a few years ago. We are confident, however, that with the new enhanced content of our manuscripts, we are addressing this issue as well.

A very welcome development has been the successful appointment of Zbyszek Dauter as an additional Section Editor for Acta Cryst. F. Zbyszek is a very well known and respected crystallographer who has previously been one of the Section Editors of Acta Cryst. D. He will undoubtedly enrich our journal with his experience and provide the necessary editorial input from the North American side.

M.S. Weiss and W.N. Hunter, Editors

	2013	2014	2015
No. of submissions	28	100	82
Rejection rate (%)	0	28	25
No. of published papers		70	81
research papers		34	38
feature articles		17	16
Topical reviews		0	5
short communications		0	0
editorial		6	6
commentaries		7	12
other		6	4
No. of open-access papers		70	81
No. of pages		613	690
Average length (pages)		9.0	8.9
Average publication time (months)		3.1	3.7

IUCrJ had an excellent second year and has continued to establish itself within the wider scientific communities that use results obtained from diffraction methods. All the indications are good in terms of the journal making a strong impact in attracting high-quality science papers of wide scientific significance from these communities. Impressions from authors, readers, referees and commentators are very positive with a number of papers receiving high downloads in line with high-impact publications.

The journal is now included in the Science Citation Index and will receive its first impact factor (for 2015) in mid-2016. All indications are that the impact factor will be at a good level for such a newly launched journal. All submissions undergo preliminary screening by a panel consisting of the five Main Editors (Ted Baker, Richard Catlow, Gautam Desiraju, Sine Larsen, John Spence) and the Editor-in-chief (Samar Hasnain), and this has helped to provide a rapid and efficient review process. Preliminary screening is generally complete within 72 hours, and any articles that do not meet the journal's requirement for broad scientific significance are usually transferred, with the agreement of the authors, to one of our other journals. Such transfers are seamless and do not require any further work by the authors.

The six issues of **IUCrJ** published in 2015 have featured papers from a wide variety of areas including biology, chemistry, crystal engineering, materials, physics and FELs. The number of articles submitted to the journal was 82; a total of 81 papers were published with an average turnaround time of 15 weeks. Articles have been highlighted by a number of different methods, with 12 highlighted *via* in-depth commentaries.

The *Biology and Medicine* section of the journal has published about 50 papers so far. These have given us glimpses into an exciting future, in which complementary approaches will substantially widen the reach of structural biology. Primary among these are the new advances in cryo-electron microscopy (cryoEM) and the growing applications of free electron lasers (FELs). Both approaches have a natural home in this journal, and to develop our coverage of cryoEM, we welcomed Richard Henderson to the Editorial Advisory Board, and Sriram Subramaniam and Werner Kühlbrandt as Co-editors.

In the *Chemistry and Crystal Engineering* section a large number of submissions have been received; we have published

55 papers in this section since the inception of the journal. The crystal engineering papers are of a high quality and the community feels the journal is doing well relative to competitors. Papers submitted in the MOFs area are also of good quality. We expect more papers of general chemical interest to be submitted as researchers become familiar with the broader scope of the journal.

The other sections of the journal, covering *Materials and Computation*, *Neutron and Synchrotron Science and Technology*, and *Physics and Free Electron Laser Science and Technology* have published 29, 21 and 29 papers, respectively, and have illustrated the rapid advances that are being made in these fields.

Dmitri Argyriou, former Science Director of the European Spallation Source, was appointed to succeed Sine Larsen on her retirement in July 2016. The Board and the Union express their gratitude to Sine for playing an active role in helping establish the journal.

Throughout 2016 we plan to encourage a greater number of papers reporting advances in technologies and methods that underpin our structural science. In addition to advances associated with synchrotron sources and X-ray free-electron lasers, we look forward to reporting major advances that are taking place in neutron sources, methods and applications.

In 2016, we will be present at a number of major meetings. Please come and visit the IUCr Journals stand, meet the Editors and get involved in making **IUCrJ** one of the mainstream comprehensive science journals. We look forward to seeing you there.

S. S. Hasnain, Editor-in-chief
D. Argyriou, E. N. Baker, G. R. Desiraju, C. R. A. Catlow, S. Larsen and J. C. H. Spence, Editors

	2010	2011	2012	2013	2014	2015
No. of submissions	309	266	321	432	410	360
Rejection rate (%)	32	34	30	36	38	29
No. of published papers	222	180	180	255	264	249
research papers	165	131	127	193	210	183
short communications	11	8	6	11	9	11
feature articles	0	0	0	0	1	1
computer programs	26	24	26	22	23	25
editorial	2	0	0	2	1	3
commentaries					3	2
other	18	17	21	27	17	24
No. of open-access papers	10	6	7	42	20	55
No. of pages	1543	1306	1338	1913	2115	2044
Average length (pages)	8.0	8.1	8.4	8.3	8.8	9.2
Average publication time (months)	5.7	5.1	5.4	5.7	5.7	5.5
Impact factor	3.79	5.15	3.34	3.95	3.98	
5 year impact factor	4.19	5.66	4.48	4.79	4.90	
Cited half life (years)	>10.0	>10.0	>10.0	>10.0	>10.0	

From the beginning of 2014, in common with all IUCr journals, *Journal of Applied Crystallography* became online only. As a result a number of changes in the format have been developed, more appropriate to an online journal. For example, each online issue now generally has its own cover illustration – taken from a highlighted or other major paper within the issue. Highlighting of articles, and the appearance of Features and Commentaries, are other new aspects developed during 2015.

While the number of published articles decreased slightly in 2015, it is clear from the table of statistics, as well as from the papers published in 2015, that *Journal of Applied Crystallography* continues to focus on the application of crystallography and crystallographic methods in all their forms (other than crystal structure determinations), and on the instrumentation, techniques and other factors involved. As stated in the journal's expanded scope statement, we continue to welcome many research topics in condensed matter research, materials science and the life sciences that make use of crystallographic methods to study crystalline and non-crystalline matter with neutrons, X-rays and electrons. All of these areas were reflected in the journal's papers during 2015. Developments of instrumentation and crystallographic apparatus, theory and interpretation, numerical analysis, computer programs and Teaching and Education papers also continue to have presence. We note that the journal remains the primary place where crystallographic computer program information is published and some clarification has recently been provided in the Notes for Authors as to what is expected of authors of Computer Program papers, including independent reports on the software, itself.

We note that the latest impact factor of 3.98, published in 2015 for 2014, remains among the highest for crystallographic journals. Echoing a point made last year, we would welcome more high-quality papers focusing on industrial applications of crystallography. During 2015, some new Co-editors were appointed to replace expertise lost

with retiring Co-editors, and to extend our expertise into new area of applied crystallography.

Although *Journal of Applied Crystallography* no longer publishes conventional conference proceedings as Special Issues, 2015 did see the publication of a new special issue containing select full-length research papers associated with the 12th Biennial Conference on High-Resolution X-ray Diffraction and Imaging (XTOP2014), and others are planned both centered on technical themes (*e.g.* FEL Software, expected summer 2016) and associated with prominent conferences such as the 16th International Conference on Small-Angle Scattering (SAS2015), expected summer/autumn 2016.

During 2015, the *Journal of Applied Crystallography* arrangement with three Main Editors to provide greater efficiency in all editorial matters pertinent to the long-term health of the journal has worked well. While regular paper submissions are not pre-selected (*i.e.* prior to assignment to a Co-editor), the option remains for the Main Editors to start pre-selecting papers for their suitability if circumstances require this in the future.

Special Issues, highlighting of papers, invited Commentaries (citable themselves with included relevant references) and Feature articles have all seen some development and evolution during 2015. Commentaries are solicited from authors other than the authors of the paper being highlighted, at the discretion of the Main Editors.

Journal of Applied Crystallography continues to welcome a small but strategically important category of papers in the area of Teaching and Education, and Juan Manuel García-Ruiz welcomes such papers as our Teaching and Education Co-editor.

We note that *Journal of Applied Crystallography* remains a hybrid journal. Authors of accepted papers have the option to retain access to their paper based on journal subscription, or to secure open access to their paper on payment of a charge to the IUCr Editorial Office. The cost per article of open access for a paper published in *Journal of Applied Crystallography* (or any other IUCr journal) remains significantly less than that for articles published in most other journals of comparable impact. In 2015, open access papers have tripled in proportion and now account for about 15 % of the total papers published.

Many challenges lie ahead for scientific publishing, especially with regard to subscription-based access *versus* open access, the growing demand to archive and provide access to research data, and the general demands placed on increasingly busy reviewers to provide the core support for a fair and rigorous review system. However, we believe that the journal's statistics for 2015 indicate that *Journal of Applied Crystallography* is well placed to meet the challenges ahead.

A. J. Allen, J. Hajdu and A. R. Kaysser-Pyzalla, Editors

	2010	2011	2012	2013	2014	2015
No. of submissions	186	191	228	245	262	258
Rejection rate (%)	27	28	22	26	22	19
No. of published papers	114	146	154	155	187	210
research papers	96	123	124	130	147	164
short communications	5	8	6	8	9	9
feature articles	2	0	0	0	1	2
lead articles	0	0	0	0	1	2
beamlines	0	1	9	4	12	15
editorial	0	2	1	1	0	2
commentaries					0	0
other	11	12	14	12	17	18
No. of open-access papers	25	64	29	71	39	60
No. of pages	816	948	1066	1012	1385	1560
Average length (pages)	7.7	7	7.3	7.0	8.1	8.1
Average publication time (months)	5.2	5.4	4.9	4.7	5.4	5.1
Impact factor	2.34	2.73	2.19	3.02	2.79	
5 year impact factor	3.11	2.57	2.23	2.73	2.67	
Cited half life (years)	6.4	6.6	7.5	8.1	8.9	

2015 saw a large increase in the number of papers published in JSR and hence also in the number of pages published. A total of 210 papers were published in 2015 (187 in 2014), amounting to 1560 pages (1385 in 2014). The number of submissions decreased slightly to 258 compared with last years total of 262. The rejection rate also decreased for a second year, down from 22% to 19%, and publication times came down from 5.4 to 5.1 months. Two Lead Articles and two Feature Articles were published in 2015, as well as one Scientific Commentary. The number of Beamlines papers published increased to 15 (from 12).

Two new Main Editors were also appointed to the journal during 2015. Firstly, Mikael Eriksson, an accelerator physics expert from MAX IV in Sweden who was one of the Guest Editors of the *Diffraction-Limited Storage Rings* special issue published in September 2014. With many SR sources undergoing upgrade it is hoped that Mikael will attract advances in the field. Secondly, Yoshiyuki Amemiya from the University of Tokyo, Japan. Yoshiyuki was one of the founding Co-editors of JSR. He is heavily involved with the Photon Factory and SPring-8 and its free-electron laser SACLA. This gives JSR five main editors, one specialized in FELs, one in accelerators and three representing the science communities from EU, USA and Japan.

Two special issues were published in JSR in 2015. The March issue included papers from the the *X-ray Radiation Damage to Biological Crystalline Samples Workshop*, with Guest Editors Elspeth Garman and Martin Weik. The number of special issues pages totalled 85 from 9 papers. The May issue contained special issue papers on *X-ray Free-Electron Lasers*, organized by Main Editor Ilme Schlichting, Co-editor Makina Yabashi and Guest Editor Bill White. Here the number of special issues pages was 182 from 27 papers.

On the subject of free-electron lasers (FELs) and the ability of JSR to attract papers from the FEL community, the number of papers published on this topic has risen steeply over the past few years. This has been partly due to the appearance of the aforementioned XFELs special issue. Since 2013 the percentage of FEL papers published in JSR has been 11% and it would be useful to increase this number and help to attract new readers and authors, particularly in light of the number of FELs currently under development. Recent appointments over the last two years to the JSR Editorial Board will hopefully help to attract such papers.

We thank the readers of JSR for their continued interest and support, the authors for publishing in our journal, the Co-editors for their great services to the community, and the Managing Editor, Tony Weight, for letting the journal 'run' like clockwork. Thanks are also due to The Editor in Chief, Samar Hasnain, for his continued support of the journal's activities.

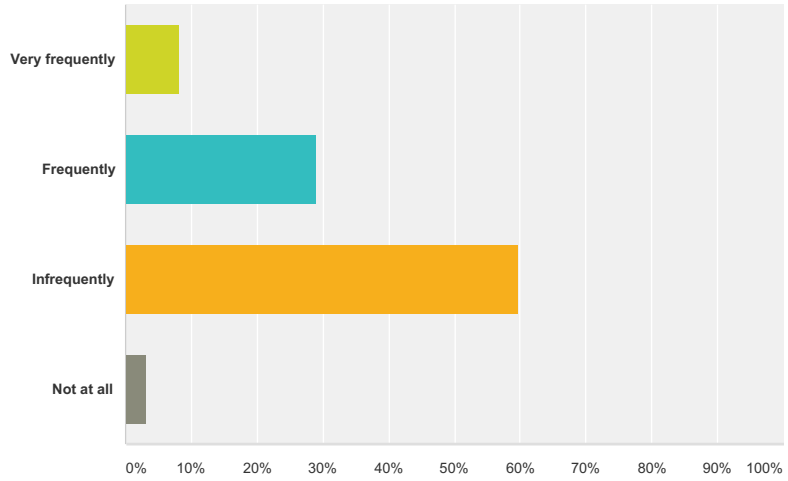
Y. Amemiya, M. Eriksson, G. E. Ice, I. Schlichting and J. F. van der Veen, Editors

APPENDIX C

Survey of Editors and Co-editors on improving the quality of IUCr Journals

Q1 Do you publish in IUCr Journals?

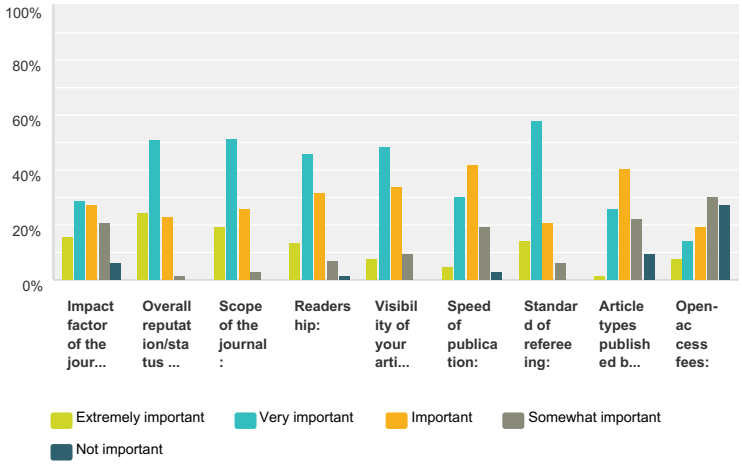
Answered: 62 Skipped: 0



Answer Choices	Responses	
Very frequently	**8.06%**	5
Frequently	**29.03%**	18
Infrequently	**59.68%**	37
Not at all	**3.23%**	2
Total		**62**

Q2 What factors influence where you publish?

Answered: 62 Skipped: 0



	Extremely important	Very important	Important	Somewhat important	Not important	Total
Impact factor of the journal:	**16.13%** 10	**29.03%** 18	**27.42%** 17	**20.97%** 13	**6.45%** 4	62
Overall reputation/status of the journal:	**24.59%** 15	**50.82%** 31	**22.95%** 14	**1.64%** 1	**0.00%** 0	61
Scope of the journal:	**19.35%** 12	**51.61%** 32	**25.81%** 16	**3.23%** 2	**0.00%** 0	62
Readership:	**13.56%** 8	**45.76%** 27	**32.20%** 19	**6.78%** 4	**1.69%** 1	59
Visibility of your article:	**8.06%** 5	**48.39%** 30	**33.87%** 21	**9.68%** 6	**0.00%** 0	62
Speed of publication:	**4.84%** 3	**30.65%** 19	**41.94%** 26	**19.35%** 12	**3.23%** 2	62
Standard of refereeing:	**14.52%** 9	**58.06%** 36	**20.97%** 13	**6.45%** 4	**0.00%** 0	62
Article types published by the journal:	**1.61%** 1	**25.81%** 16	**40.32%** 25	**22.58%** 14	**9.68%** 6	62
Open-access fees:	**8.06%** 5	**14.52%** 9	**19.35%** 12	**30.65%** 19	**27.42%** 17	62

#	Other important factors (please specify)	Date
1	The number one criterion: SUBJECT! You cannot possibly publish results obtained in chemical didactics in Acta A!	5/4/2016 11:51 AM
2	w.r.t. Open-access fees - so far I have never paid for Open Access!	5/3/2016 10:31 AM
3	Free colour in printed papers	4/30/2016 7:10 AM
4	historical reputation; editorial requirements	4/29/2016 12:10 PM
5	production quality	4/29/2016 5:54 AM
6	Standing of the Editors	4/28/2016 9:56 PM
7	good match of the scope of the journal and my paper	4/28/2016 9:45 PM
8	crystallography community.	4/28/2016 5:36 PM
9	Overall IMpact Factor	4/28/2016 5:31 PM
10	tradition and sentiment towards Acta Cryst	4/28/2016 4:37 PM
11	Complexity of the submission process	4/28/2016 3:01 PM
12	Citation half life trumps impact factor for crystallography papers.	4/28/2016 2:36 PM
13	Ease of paper preparation (style/layout requirements, file formats) and submission procedures and requirements	4/28/2016 1:47 PM
14	Uniformity of reviews	4/28/2016 1:31 PM
15	For me personally, standard of refereeing, speed of publication, visibility, reputation are most important. Unfortunately, mu employer and funding agencies deman publication in high-impact journals (funding is propertional to impact factors of the journals, where research has been published, some agencies set a lower allowed limit at the impact factor. Therefore I am forced to submit to Chemistry journals also the papers which would fit nicely Acta, and the feel frustrated because of the refeering process. I am not eligible to pay publication fees. Therefore open-access journals are excluded for me. Spped of publication is critically important, since I have a tough "plan" and must produce a rather high number of papers per year without excuses, and also students must have sufficient number of their papers published during a rather short time.	4/28/2016 12:57 PM

Q3 What could be done to encourage you to publish more often in IUCr Journals?

Answered: 36 Skipped: 26

#	Responses	Date
1	Acta B needs to be more clearly Materials oriented.	5/8/2016 11:23 AM
2	Increase of impact factor	5/5/2016 8:23 PM
3	I am quite satisfied with IUCr journals	5/5/2016 9:35 AM
4	They have to be MUCH faster	4/30/2016 7:54 AM
5	Greater visibility in the chemistry community	4/30/2016 7:10 AM
6	Achieve a higher IF Achieve a higher profile amongst my collaborators	4/29/2016 8:12 PM
7	Faster reviewing process	4/29/2016 5:45 PM
8	Slowly work up impact factors. My university considers publishing in journals with IF < 3 as a waste of time and (their) money.	4/29/2016 5:01 PM
9	increased If - although definitely not 'artificially', but by increased overall standards	4/29/2016 12:10 PM
10	From my own personal experience, I believe cutting down publication time (in particular getting a feedback from Editor/Referees) would be crucial. Articles in the journal listed below are accepted and published online (as ASAP/accepted manuscripts) within 1-2 months of submission.	4/29/2016 10:15 AM
11	Being semi-retired I do not publish very much elsewhere.	4/29/2016 8:41 AM
12	more research money!	4/29/2016 5:54 AM
13	Better access of the journals by the widespread community (this will also increase impact factor). Many national consortia do not include IUCr journals in the paid packages so researchers do not have access to the papers. You can not cite what you do not read.	4/28/2016 10:28 PM
14	Raise the impact factor	4/28/2016 9:56 PM
15	Not a lot - I publish in Acta D and J. Appl. Cryst when the subject matter is appropriate.	4/28/2016 9:45 PM
16	Increase the reputation of the Journals	4/28/2016 7:38 PM
17	Acta is too strict for CIF standards.in non standard structures or refinement Some coeditors are not doung their job (asking for example after one month or more to authors for names of referees because they are not able to find referrees by themselves	4/28/2016 5:36 PM
18	Higher Impact Factors	4/28/2016 5:31 PM
19	Nothing. I publish almost everything in IUCr journals	4/28/2016 4:37 PM
20	wider readership	4/28/2016 4:09 PM
21	For Acta Cryst C. Easier publication through standard doc format. Less rules as to what must be incuded and how.	4/28/2016 3:15 PM
22	.	4/28/2016 3:01 PM
23	I do not regard 1-2 papers per year in IUCr journals as "infrequent". I have to interface several overlapping research communities; so it is not appropriate to put everything in IUCr journals, and never will be.	4/28/2016 2:36 PM
24	My university cares about top 20% ISO journals. If acta d were not top 20% in any area I would be discouraged from publishing there. I have published in plosone instead of acta f because plosone rates as top 20%. I have been very uncertain about iucrj, having published in NAR (after rejections from Science and PNAS), because of more certainty about NAR's broader reputation.	4/28/2016 2:35 PM
25	Refereeing/editing is a mixed bag in Acta journals, especially Acta C.	4/28/2016 2:04 PM
26	nothing, because where I have control over where a paper I am an author of goes, I use IUCr journals. See also next remark.	4/28/2016 1:47 PM
27	Refereeing could be quicker	4/28/2016 1:45 PM
28	Improve the standard of papers for acceptance	4/28/2016 1:42 PM
29	Increased visibility. Focus on 3D structures of macromolecules determined by crystallography for Acta D as is done for Structure.	4/28/2016 1:31 PM
30	Reduce the open access fee? I am retired so have little funds.	4/28/2016 1:02 PM
31	If impact factors were 3 and higher, I would publish only in IUCr journals everything that is relevant for them.	4/28/2016 12:57 PM
32	open more to interfaces with other approaches (biophysics, biochemistry, etc...)	4/28/2016 12:51 PM
33	don't know	4/28/2016 12:41 PM
34	I have so far published 41% of my original articles in IUCr journals. A few that went elsewhere were "letters" - there is not such a section in IUCr journals, is there? Then, some invited articles for a couple of different journals, the rest is mineralogy, which does not get much attention in IUCr journals.	4/28/2016 12:38 PM
35	Increase impact and status	4/28/2016 12:38 PM
36	I don't think much on your side - I just need to write more papers! However, I do tend to put papers that really focus on the biological mechanism (rather than the structure) in biochem journals, rather than the Acta Journals.	4/28/2016 12:29 PM

Q4 Where else do you publish most? (please list your two most favoured journals)

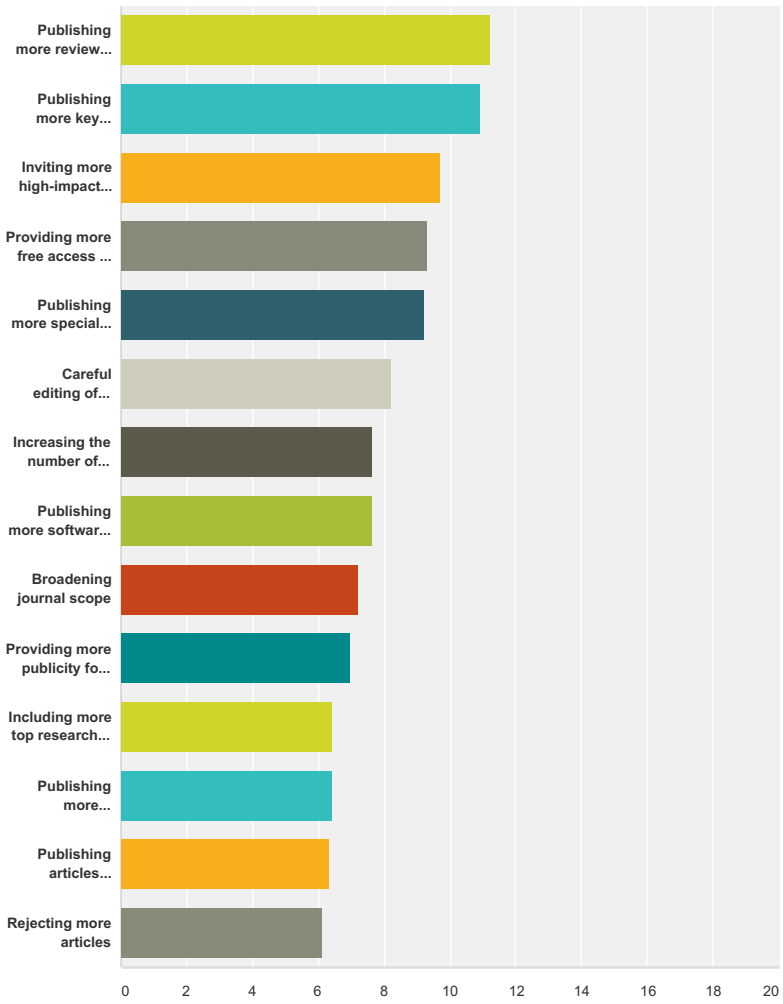
Answered: 50 Skipped: 12

#	Responses	Date
1	J. Mat Chem. A J. Solid State CHem	5/8/2016 11:23 AM
2	Dalton Trans Polyhedron	5/6/2016 9:17 AM
3	Chemistry, A European Journal Organometallics	5/5/2016 8:23 PM
4	Zeitschrift fur Kristallographie, CrystEngComm	5/5/2016 9:35 AM
5	CrystEngComm Z. Anorg. Allg. Chem.	5/4/2016 11:51 AM
6	Physical Review (and Physical Review Letters) Journal of the American Chemical Society	5/3/2016 10:31 AM
7	Acta Materialia	5/1/2016 4:16 PM
8	Crystal Growth and Design Angewandte Chemie	4/30/2016 7:54 AM
9	Angewandte Chemie Inorganic Chemistry	4/30/2016 7:10 AM
10	Acta B Angewandte Chemie	4/29/2016 8:12 PM
11	Journal of Physical Chemistry C Advanced Energy Materials	4/29/2016 5:45 PM
12	Cryst. Growth Des., CrystEngComm	4/29/2016 5:01 PM
13	American Mineralogist	4/29/2016 4:41 PM
14	J. Phys. Chem.; Cryst. Growth Des.	4/29/2016 12:10 PM
15	CrystEngComm Crystal Growth & Design	4/29/2016 10:15 AM
16	Journal of Physics	4/29/2016 8:41 AM
17	Phys. Rev. B	4/29/2016 5:54 AM
18	Inorganic Chemistry and Materials Science journals, either from RSC or from ACS (mostly)	4/28/2016 10:28 PM
19	PNAS J. Biol. chem.	4/28/2016 9:56 PM
20	Structure Journal of Biological Chemistry	4/28/2016 9:45 PM
21	Organometallics Inorganic Chemistry	4/28/2016 8:40 PM
22	Journal of Physical Chemistry Crystal Growth and Design	4/28/2016 7:56 PM
23	Journal of Biological Chemistry ACS Chemical Biology	4/28/2016 7:38 PM
24	PRB, JACS	4/28/2016 7:07 PM
25	J phys Chem Phys. rev	4/28/2016 5:36 PM
26	CrystEngComm (RSC Journals) Z. Kristallogr. (structural papers)	4/28/2016 5:31 PM
27	Sporadically in JBC, Structure	4/28/2016 4:37 PM
28	CrystEngComm Crystal Growth and Design New J of Chemistry Structural Chemistry	4/28/2016 4:09 PM
29	In order of decreasing frequency of publishing: JACS, Chem Mater, J Appl Cryst	4/28/2016 3:52 PM
30	Cystal growth & design. Chemistry Eur J	4/28/2016 3:15 PM
31	CrystGrowth&Design, CheistryEurJ., CrystEngCom	4/28/2016 3:01 PM
32	Journal of Physical Chemistry B Physical Review B	4/28/2016 2:44 PM
33	Materials and applied physics journals and, more recently, applied chemistry journals. Acta Materialia, Cement and Concrete Research, J. Phys. Chem. C have all figured in recent years, along side IUCr's JAC.	4/28/2016 2:36 PM
34	PNAS, NAR.	4/28/2016 2:35 PM
35	Dalton CrystEngComm	4/28/2016 2:27 PM
36	Probably JACS and Advanced Materials.	4/28/2016 2:04 PM
37	When main author, I publish exclusively in IUCr journals. Mostly I am not the main author and my contribution is such that I am not in a position to influence where an article goes. I do not have favourite "other" journals, but my colleagues usually aim for the main big chemistry journals.	4/28/2016 1:47 PM
38	CrystEngComm	4/28/2016 1:45 PM
39	JMB; JSB;	4/28/2016 1:42 PM
40	PNAS, JMB	4/28/2016 1:31 PM
41	Phys. Rev. B, Cryst. Growth and Design	4/28/2016 1:30 PM
42	I collaborate with a lot of people and they chose the journal most appropriate for their work.	4/28/2016 1:02 PM
43	Nature series Science	4/28/2016 1:01 PM
44	CrystEngComm (a good combination of quality and impact factor, these papers could fit Acta, but I do need high IF of papers to survive), J. Phys. Chem. B and C (not all my work is crystallographic), J. Pharm. Sci., Pharm. Res., ACIE, JTAC (calorimetry), Vibrational Spectroscopy (spectra), Sometimes - Crystal Growth and Design, Chem. Eur. J., RS Advances, ChemComm.	4/28/2016 12:57 PM
45	Journal of Biol Chem (JBC) Applied & Environ Microbiol (AEM)	4/28/2016 12:51 PM
46	I try to publish in Nature and Science but my submissions are - unsurprisingly - often rejected. However, _if_ it works out then the impact is way higher than if the same paper appeared in a IUCr journal.	4/28/2016 12:41 PM

47	European Journal of Mineralogy 15% Z. Kristallogr. 18% (including "letters") Cryst. Res. Techn. 8% OK, that makes three, sorry!	4/28/2016 12:38 PM
48	Science Reports, J.Biol.Chem.	4/28/2016 12:38 PM
49	Journal of Biological Chemistry, Biochemistry	4/28/2016 12:29 PM
50	J. Med. Chem. J. Biol. Chem	4/28/2016 12:26 PM

Q5 Please rank (most important first), which of the following you think would increase the quality of the journals and give sustainable increases in impact factors:

Answered: 54 Skipped: 8



	1	2	3	4	5	6	7	8	9	10	11	12	13	14	N/A	Total	Score
Publishing more review articles (e.g. topical reviews)	33.33% 16	18.75% 9	0.00% 0	14.58% 7	4.17% 2	10.42% 5	0.00% 0	6.25% 3	0.00% 0	2.08% 1	0.00% 0	2.08% 1	4.17% 2	0.00% 0	4.17% 2	48	11.22
Publishing more key methods papers	15.22% 7	21.74% 10	21.74% 10	15.22% 7	0.00% 0	0.00% 0	4.35% 2	0.00% 0	2.17% 1	4.35% 2	2.17% 1	6.52% 3	0.00% 0	0.00% 0	6.52% 3	46	10.93
Inviting more high-impact authors to contribute articles	12.77% 6	12.77% 6	17.02% 8	4.26% 2	10.64% 5	4.26% 2	2.13% 1	4.26% 2	4.26% 2	6.38% 3	2.13% 1	2.13% 1	4.26% 2	2.13% 1	10.64% 5	47	9.74
Providing more free access to articles just after publication	10.87% 5	10.87% 5	8.70% 4	13.04% 6	2.17% 1	6.52% 3	8.70% 4	2.17% 1	6.52% 3	4.35% 2	6.52% 3	2.17% 1	4.35% 2	0.00% 0	13.04% 6	46	9.30
Publishing more special issues	6.25% 3	18.75% 9	4.17% 2	6.25% 3	10.42% 5	8.33% 4	6.25% 3	6.25% 3	12.50% 6	0.00% 0	10.42% 5	2.08% 1	0.00% 0	0.00% 0	8.33% 4	48	9.23
Careful editing of article titles, abstracts and keywords	9.09% 4	4.55% 2	6.82% 3	0.00% 0	18.18% 8	2.27% 1	6.82% 3	18.18% 8	6.82% 3	11.36% 5	0.00% 0	2.27% 1	4.55% 2	2.27% 1	6.82% 3	44	8.24
Increasing the number of open-access articles	2.22% 1	11.11% 5	8.89% 4	8.89% 4	6.67% 3	6.67% 3	4.44% 2	0.00% 0	8.89% 4	11.11% 5	4.44% 2	8.89% 4	6.67% 3	4.44% 2	6.67% 3	45	7.64

Publishing more software papers	**2.22%** 1	**0.00%** 0	**13.33%** 6	**8.89%** 4	**6.67%** 3	**6.67%** 3	**11.11%** 5	**6.67%** 3	**6.67%** 3	**8.89%** 4	**0.00%** 0	**11.11%** 5	**2.22%** 1	**4.44%** 2	**11.11%** 5	45	7.63
Broadening journal scope	**2.22%** 1	**6.67%** 3	**6.67%** 3	**4.44%** 2	**11.11%** 5	**8.89%** 4	**6.67%** 3	**8.89%** 4	**0.00%** 0	**0.00%** 0	**11.11%** 5	**13.33%** 6	**8.89%** 4	**2.22%** 1	**8.89%** 4	45	7.22
Providing more publicity for articles after publication	**6.52%** 3	**0.00%** 0	**8.70%** 4	**6.52%** 3	**4.35%** 2	**6.52%** 3	**13.04%** 6	**6.52%** 3	**4.35%** 2	**0.00%** 0	**8.70%** 4	**10.87%** 5	**8.70%** 4	**6.52%** 3	**8.70%** 4	46	6.98
Including more top researchers on our Editorial Boards	**0.00%** 0	**0.00%** 0	**8.89%** 4	**2.22%** 1	**8.89%** 4	**6.67%** 3	**6.67%** 3	**6.67%** 3	**11.11%** 5	**13.33%** 6	**8.89%** 4	**2.22%** 1	**4.44%** 2	**8.89%** 4	**11.11%** 5	45	6.45
Publishing more controversial articles/opinions	**2.27%** 1	**4.55%** 2	**0.00%** 0	**6.82%** 3	**2.27%** 1	**9.09%** 4	**2.27%** 1	**13.64%** 6	**6.82%** 3	**6.82%** 3	**6.82%** 3	**6.82%** 3	**6.82%** 3	**6.82%** 3	**18.18%** 8	44	6.44
Publishing articles further in advance of final publication	**4.26%** 2	**0.00%** 0	**8.51%** 4	**8.51%** 4	**8.51%** 4	**4.26%** 2	**2.13%** 1	**2.13%** 1	**2.13%** 1	**6.38%** 3	**12.77%** 6	**10.64%** 5	**8.51%** 4	**10.64%** 5	**10.64%** 5	47	6.33
Rejecting more articles	**2.08%** 1	**2.08%** 1	**0.00%** 0	**6.25%** 3	**6.25%** 3	**8.33%** 4	**6.25%** 3	**4.17%** 2	**12.50%** 6	**16.67%** 8	**4.17%** 2	**2.08%** 1	**8.33%** 4	**10.42%** 5	**10.42%** 5	48	6.14

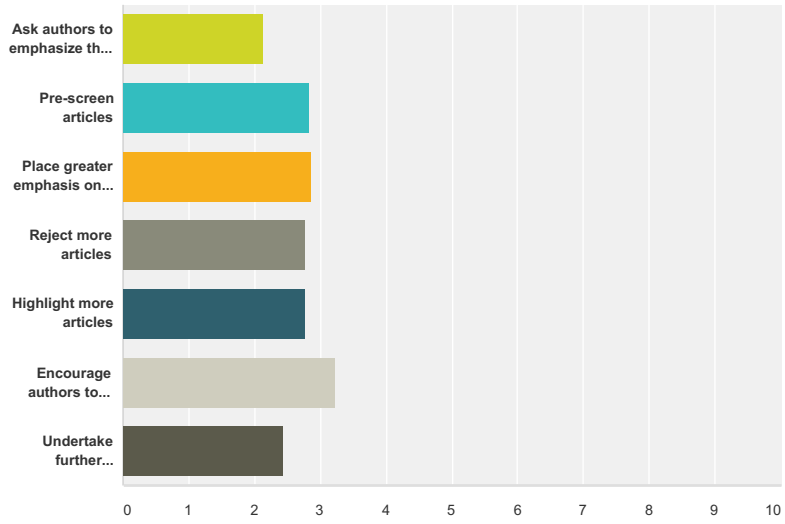
Q6 Please specify any other ideas that might be used to increase the quality of the journals:

Answered: 15 Skipped: 47

#	Responses	Date
1	provide a sample article of - acceptable format - acceptable language - acceptable structure - acceptable and understandable motivation and tell potential authors: "this is what we expect!"	5/4/2016 11:55 AM
2	Encourage editors and co-editors to publish scientific commentaries explaining the broad community the relevance of the research	5/1/2016 4:47 PM
3	Generally, our journals are far less well-resourced than the competition. This is particularly important when it comes to publicity, but there is limited capacity for expansion overall, a real chicken-and-egg situation.	4/29/2016 8:21 PM
4	Identify key developments before they become popular, invite their authors to publish the full/definitive papers with all details about them at IUCr, even after communications/initial papers in the likes of Angew. Chem. and PNAS.	4/29/2016 5:10 PM
5	Maintaining (already high) standards	4/29/2016 8:46 AM
6	qualiry if editors abd coeditors	4/28/2016 5:42 PM
7	Just having "notable" researchers on Editorial Boards, etc. who do not publish in the Journal is not appropriate.	4/28/2016 5:33 PM
8	In general I am against trying to compete with commercial "magazines", such as Nature, Science etc. IUCr journals should serve the community, not paying too much attention to impact factors.	4/28/2016 4:45 PM
9	With one or two exceptions (e.g., IUCrJ), IUCr journals should focus primarily on their 5-year impact factors and mean citation half-life, and they should be very public in declaring this priority.	4/28/2016 2:44 PM
10	(It was practically quite tricky to fill in the above with a ranked list on my iphone). It seems that much of the world still cares about impact factor, so devices (Spek) to keep that up will help with submissions. Maintaining scientific rigour.	4/28/2016 2:42 PM
11	The relative importance of these items really depends on the journal. What is good for IUCrJ, A and D might be less viable for C/E, for example	4/28/2016 1:47 PM
12	There is a conflict in this question: Do you want to increase the impact factor or quality? To improve the quality, have more stricter criteria for acceptance.	4/28/2016 1:44 PM
13	1) A "letter" section could be useful. 2) Add more emphasis to "industrial crystallography" in JAC (ex. as a subtitle). 3) Broadening scope may be risky, if the results departs too much from the core. 4) You ask authors to advertise their article in Kudos. That's time consuming, we are asked to write another description of the article just publish, that's a job for a PR position at the publisher office!	4/28/2016 1:13 PM
14	Not everyone can attend the IUCr Congress so asking the main speakers to contribute their lecture as an article would be attractive.	4/28/2016 1:11 PM
15	The quality and the impact factor are inversely proportional. The quality of IUCr journals is extremely high. Increasing IF will inevitable decrease the quality. One needs to keep a balance, since researchers are forced to publish in high IF journals not because of vanity, but because of formal rules imposed on them by their funding agencies and administration. Lobbying of these rules is strong. If Wiley lobbies IUCr journals as it does ACIE and ChemEurJ, or as Elsevier lobbies its journals, life will be easier - for researchers and for the IUCr Journals.	4/28/2016 1:06 PM

Q7 For all the journals, there is a proportion of articles (20-60%, depending on the journal) that are not cited within 3 years, and a smaller proportion (10-20%) that are not cited after 10 years. Which of the following ideas do you think might help in reducing the number of such articles?

Answered: 54 Skipped: 8



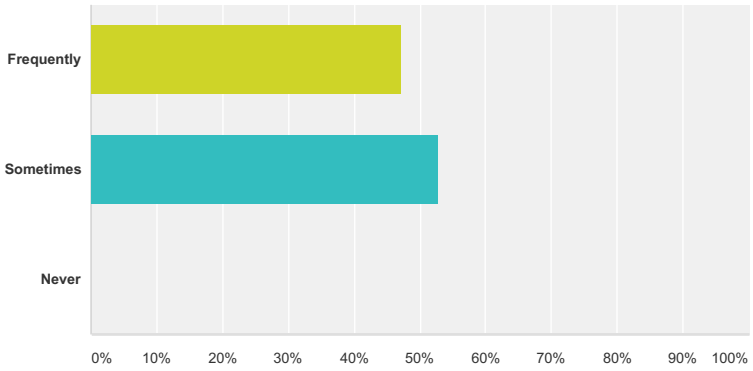
	Extremely important	Very important	Important	Somewhat important	Not important	Total	Weighted Average
Ask authors to emphasize the scientific relevance of their articles	**39.62%** 21	**18.87%** 10	**30.19%** 16	**5.66%** 3	**5.66%** 3	53	2.13
Pre-screen articles	**15.38%** 8	**21.15%** 11	**28.85%** 15	**23.08%** 12	**11.54%** 6	52	2.83
Place greater emphasis on reviewer scoring	**7.41%** 4	**27.78%** 15	**35.19%** 19	**20.37%** 11	**9.26%** 5	54	2.87
Reject more articles	**16.98%** 9	**26.42%** 14	**18.87%** 10	**32.08%** 17	**5.66%** 3	53	2.77
Highlight more articles	**11.32%** 6	**26.42%** 14	**35.85%** 19	**16.98%** 9	**9.43%** 5	53	2.77
Encourage authors to publicise their articles (e.g. by using Kudos)	**5.56%** 3	**20.37%** 11	**18.52%** 10	**33.33%** 18	**22.22%** 12	54	3.24
Undertake further analysis of the reasons why articles are not cited	**16.98%** 9	**39.62%** 21	**24.53%** 13	**13.21%** 7	**5.66%** 3	53	2.45

#	Please specify any other ideas you think might help in reducing the number of uncited articles:	Date
1	Estimate the number of potential readers based on keywords (and WDC?)	5/1/2016 4:47 PM
2	All journals have a proportion of poorly-cited articles. It is not always possible to predict which these will be. It is much more important to target articles with a good chance of being highly cited. It is only practical to aim for higher quality and weed out the weaker papers once we are attracting more submissions.	4/29/2016 8:27 PM
3	Do not accept routine work	4/29/2016 5:13 PM
4	some important papers will not be cited - because they are too specialistic, but they may be very important and we have to accommodate them.	4/29/2016 1:06 PM
5	Careful prescreening	4/29/2016 11:52 AM
6	Would be good if could reject articles that won't be cited but don't know how you can predict this in advance.	4/29/2016 8:49 AM
7	IUCr Journals shoudl serve the community. Just because an article is not cited, does not mean the work should not be published.	4/28/2016 5:34 PM
8	Editors and referees asked to take more account of citation history of submitting / principal authors, and perhaps subject area if not mainstream.	4/28/2016 2:49 PM
9	Use "citeability" as a reviewer scoring criterion.	4/28/2016 2:44 PM
10	Some methods papers are not cited because the techniques have become part of standard practice. This is something that could easily be fixed by editorial intervention.	4/28/2016 2:15 PM
11	Convince other publishers to insist CSD structure citations are accompanied by a full citation to the original work. Open access.	4/28/2016 1:49 PM
12	Use stricter criteria for papers to be reviewed	4/28/2016 1:45 PM

13	sometimes an article is downloaded, read, used and not cited. Sometimes an article is to innovating to be understood immediately, but will be cited after a long induction period. Another factor: many authors select papers to cite not after reading but by catchy title, also high impact factor journals insist that authors refer to the papers published in the same journal. Often editors and referees request explicitly and openly that refs to papers in the same journal are added...	4/28/2016 1:27 PM
14	As said at the previous screen, no time for things like Kudos. Be careful in putting a too tight criterion on citations: you may lose good content - not everything that is seldom quote is meaningless!	4/28/2016 1:15 PM
15	Encourage authors to discuss more fully similarities of differences in their work with work reported on by other groups.	4/28/2016 1:14 PM
16	Cited doesn't mean not read. I think there are a lot of fundamental methodology articles that are highly read by students, but are maybe not cited. Maybe better altmetrics (downloads?) might help highlight these and determine whether this is the case.	4/28/2016 12:34 PM

Q8 When networking with other researchers, do you recommend IUCr Journals?

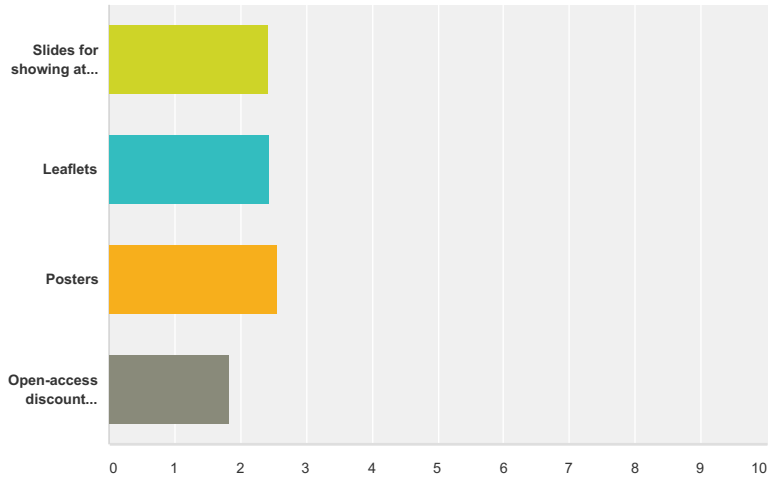
Answered: 55 Skipped: 7



Answer Choices	Responses	
Frequently	**47.27%**	26
Sometimes	**52.73%**	29
Never	**0.00%**	0
Total		**55**

Q9 Would providing you with any of the following help you to encourage good submissions?

Answered: 55 Skipped: 7

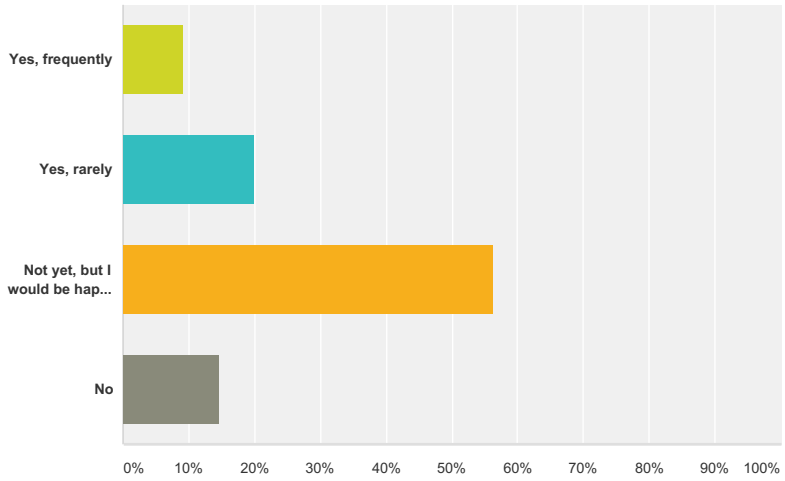


	Very useful	Useful	Somewhat useful	Not useful	Total	Weighted Average
Slides for showing at meetings	**12.73%** 7	**32.73%** 18	**30.91%** 17	**23.64%** 13	55	2.42
Leaflets	**10.91%** 6	**34.55%** 19	**36.36%** 20	**18.18%** 10	55	2.44
Posters	**7.27%** 4	**29.09%** 16	**41.82%** 23	**21.82%** 12	55	2.56
Open-access discount vouchers	**41.82%** 23	**32.73%** 18	**16.36%** 9	**9.09%** 5	55	1.84

#	Please specify any other help that might be provided by the Editorial Office, Main Editors or Editor-in-chief:	Date
1	Coordinated efforts at selected scientific meetings.	4/29/2016 8:31 PM
2	perhaps an interaction between programs of IUCr conferences and the papers published by the invited lecturers should be considered. Perhaps an IUCr award for the best article in Acta issues?	4/29/2016 1:18 PM
3	Authors generally want their work publish and do not care about anything else, solely relying on Editors to do the work for them.	4/28/2016 5:36 PM
4	More of a requirement for authors to provide 5 international reviewer suggestions - not collaborators or same affiliation with any author - might encourage authors to raise the bar on their own submissions.	4/28/2016 3:00 PM
5	No idea	4/28/2016 2:18 PM
6	People ar looking for high IF journals that their colleagues in their field are using and that seem relevant to their field. Overcoming the impression that Acta is not for mainstream science is the big obstacle, especially where our IF are low.	4/28/2016 1:53 PM
7	Help in disseminating info about published articles. Letters directly addresed to Funding Agencies, Ministries, etc. explaining that IUCr journals are of highest standards, and why.	4/28/2016 1:30 PM

Q10 Articles can be highlighted in a number of ways, e.g. by a Commentary, a Press release, selection for a journal cover, selection for the highlights section on the front page of the online journal. Have you suggested articles for highlighting to the Main Editors or the Editorial Office?

Answered: 55 Skipped: 7



Answer Choices	Responses	
Yes, frequently	**9.09%**	5
Yes, rarely	**20.00%**	11
Not yet, but I would be happy to do so	**56.36%**	31
No	**14.55%**	8
Total		**55**

#	If you have not suggested articles for highlighting yet, please specify why not (e.g. I have not been asked to do so until now):	Date
1	I have not been asked to do so until now	5/5/2016 8:27 PM
2	I have not been aware of this possibility	5/5/2016 9:44 AM
3	I was not aware of this possibility - should have thought about it	4/29/2016 1:18 PM
4	Maybe have not seen any I thought should be highlighted.	4/29/2016 8:51 AM
5	The papers accepted have not met yet a high international standard.	4/28/2016 10:36 PM
6	I have not had an appropriate article	4/28/2016 9:52 PM
7	I have not been asked to do so until now	4/28/2016 8:10 PM
8	i did not rhink to	4/28/2016 5:45 PM
9	Never been asked.	4/28/2016 3:19 PM
10	I was under impression that it is the Main Editors decision	4/28/2016 3:07 PM
11	I was not asked to do so	4/28/2016 2:50 PM
12	I didn't know I coukd	4/28/2016 2:48 PM
13	It hasn't occurred to me before	4/28/2016 2:18 PM
14	I have not been asked to do so until now	4/28/2016 1:48 PM
15	I have not been asked to do so	4/28/2016 1:39 PM
16	I haven't been asked to do it	4/28/2016 1:35 PM
17	I have not been asked to do so until now	4/28/2016 1:30 PM
18	I am simply a humble book review editor, I am not entitled to such a high-profile job!	4/28/2016 1:21 PM
19	I have just started editing, and I have not been asked to do so	4/28/2016 12:59 PM
20	Was not asked	4/28/2016 12:45 PM
21	I didn't realise I could.	4/28/2016 12:35 PM

Q11 How can we engage more effectively with authors' institutions and funders in promoting their work through their own press releases?

Answered: 22 Skipped: 40

#	Responses	Date
1	Make press releases for the authors	5/3/2016 7:40 PM
2	Perhaps you already do this - but you could encourage the authors of about to be published work to engage with their departmental press people prior to publication.	5/3/2016 10:39 AM
3	Direct contact with the press office at the author's institution.	4/30/2016 7:17 AM
4	Is there a mechanism for feeding back to the funding agency when IUCr publishes a paper, especially if we think it is outstanding, I.e., it merits a journal cover, commentary, etc.?	4/29/2016 8:31 PM
5	I will discuss this at the IUCr Commission on High Pressure, if we can promote Acta B - perhaps if we could have some award (hot article, open access granted, Editors choice - young and not that young researchers need awards.	4/29/2016 1:18 PM
6	Good contact with communication officers at facilities, is already happening to some extent.	4/29/2016 11:54 AM
7	-	4/28/2016 10:36 PM
8	provide assistance in writing press friendly material	4/28/2016 9:52 PM
9	Perhaps provide a template to the corresponding author to edit and send to the institutional PR office.	4/28/2016 8:10 PM
10	not sure	4/28/2016 4:51 PM
11	Annual author awards would engender significant free publicity from the employer institutions.	4/28/2016 3:00 PM
12	PNAS contact institutions independent of authors - not relying on researchers.	4/28/2016 2:48 PM
13	No idea	4/28/2016 2:18 PM
14	Also publicise in Chemistry World, Physics World, Angew, Nature	4/28/2016 1:54 PM
15	Provide funding, prizes that are attractive to non-crystallographers. Give prizes for most cited/read article each year. i.e. attract people by making them think there is a benefit to be won.	4/28/2016 1:53 PM
16	Increase visibility of journals	4/28/2016 1:39 PM
17	I must think	4/28/2016 1:30 PM
18	I doubt you can - this is something that concerns the authors and their institutions. Well, perhaps inform the press release officer - or whatever similar officer - of an institution that an article by one of their researchers has been highlighted, has got a cover etc.? Coming from the publisher, this would get more attention than if it came from the author. But for that you need a panel of addresses (add a field in the article submission form, saying that if published and highlighted this address would be used for promoting the article?)	4/28/2016 1:21 PM
19	Encourage the authors themselves to liaise with their institutions press office.	4/28/2016 1:16 PM
20	Allow instant open access to pre-print version of manuscript.	4/28/2016 12:59 PM
21	One should do so automatically for all highlighted articles.	4/28/2016 12:45 PM
22	Not sure. I've only ever done one press release.	4/28/2016 12:35 PM

Q12 Are there any new areas of research that you think the journals should capture?

Answered: 26 Skipped: 36

#	Responses	Date
1	Energy / functional materials are very hot topics at the moment, a lot of this includes huge amounts of crystallography but is seldom captured by our journals.	5/8/2016 11:34 AM
2	interface structural <-> medicinal chemistry	5/4/2016 11:59 AM
3	Developing areas include work from XFELs and PDF analysis	4/30/2016 7:19 AM
4	Electron diffraction FELs Gas cell studies	4/29/2016 8:38 PM
5	Interdisciplinary research	4/29/2016 5:51 PM
6	Any methodological development around crystallography; but publish articles that present these in a way that can be understood by potential users as well, not only a dozen theoretical specialists.	4/29/2016 5:17 PM
7	Materials sciences are important - although there is often a problem in new materials in the quality of data...	4/29/2016 1:20 PM
8	Shift emphasis to science at diffraction-limited light sources and free-electron lasers.	4/29/2016 11:56 AM
9	Have not thought about this....	4/29/2016 8:51 AM
10	No	4/28/2016 10:05 PM
11	not really	4/28/2016 9:52 PM
12	Not at present.	4/28/2016 8:13 PM
13	structural nanoscience time resolved crystallo and spectrosopy	4/28/2016 5:47 PM
14	no	4/28/2016 5:36 PM
15	I think we should not broaden our scope any further	4/28/2016 4:52 PM
16	The current revolution in electron microscopy techniques (aberration-corrected high resolution imaging, environmental cells, electron and X-ray diffraction and spectroscopy) needs to be better captured within our existing journals.	4/28/2016 3:06 PM
17	Not too many. Maybe more papers on preparing advanced materials and characterising them at a high level.	4/28/2016 2:39 PM
18	Not sure	4/28/2016 2:19 PM
19	More theory applied to solid state	4/28/2016 1:55 PM
20	don't know	4/28/2016 1:54 PM
21	CryoEM	4/28/2016 1:49 PM
22	Crystal growth is badly missing! More emphasis on industry-related topics (synthesis and characterization) Mineralogy	4/28/2016 1:24 PM
23	??	4/28/2016 1:20 PM
24	Drug design by fragment screeing, time resolved structural analyses, integrative studies (combining different scales)	4/28/2016 1:03 PM
25	For structural biology - hybrid methods	4/28/2016 12:47 PM
26	I think the coverage is pretty good.	4/28/2016 12:36 PM

Q13 How can authors from these new areas be encouraged to submit to IUCr Journals?

Answered: 24 Skipped: 38

#	Responses	Date
1	more special issues / focus papers / review articles	5/8/2016 11:34 AM
2	direct personal contact	5/4/2016 11:59 AM
3	Personal contact and exposure of IUCr journals at scientific meetings where these topics are covered.	4/30/2016 7:19 AM
4	Use feature articles, editorials, journal scope, keywords, co-editor appointments, etc., to make sure that our commitment to the emerging area is clear and unequivocal. Of these, having a recognised name on the Editorial Board may be the key factor in attracting papers to our journals.	4/29/2016 8:38 PM
5	Providing faster publication and higher impact factor	4/29/2016 5:51 PM
6	This is a gradual process, where a lot depends on the editor's handling of manuscripts.	4/29/2016 1:20 PM
7	Personal contacts at meeting and visits to facilities.	4/29/2016 11:56 AM
8	N/A	4/28/2016 10:05 PM
9	The introduction of any new area should be accompanied by a special issue of the journal.	4/28/2016 8:13 PM
10	vouchers to Open access	4/28/2016 5:47 PM
11	Again, for Acta C make the submission process easier with less rules and hurdles. You need everyone involved in molecular sciences to be able to write a suitable article - whereas just now only specialist crystallographers can do so. Once you have done so , yuo then have to make sure that the general chemistry community knows that it is now easier to write for us.	4/28/2016 3:22 PM
12	Invited Feature, method and software articles would help. Perhaps invite those in new fields on to our Editorial Boards.	4/28/2016 3:06 PM
13	Maintain rigour, and accept the loss of some higher profile results to fashionable journals	4/28/2016 2:50 PM
14	Such a sub-section must then be introduced.	4/28/2016 2:39 PM
15	Not sure	4/28/2016 2:19 PM
16	Invites to conferences, e.g. keynotes, special symposia.	4/28/2016 1:55 PM
17	probably start with a big special issue.	4/28/2016 1:54 PM
18	publish methodology reviews, highlight results from other journals on the area, invite papers openly from the area	4/28/2016 1:49 PM
19	IUCr journals already have very good records in terms of editorial work, speed of publication and reputation. Just informing potential authors in these areas that they have a new channel with these features should give positive outcomes.	4/28/2016 1:24 PM
20	If the researchers can be identified then perhaps invite them to publish an open access paper for free.	4/28/2016 1:20 PM
21	change the name - as long as the word "crystallography" appears prominently, it will deter authors from other fields (like EM). The journals should rather have e.g. "structural biology" in their name.	4/28/2016 1:12 PM
22	key words and scope description of the journal	4/28/2016 1:03 PM
23	By specifically highlighting these areas as important in the statement of what is published.	4/28/2016 12:47 PM
24	n/a	4/28/2016 12:36 PM

Q14 Please add any additional comments you have regarding improving the quality of our journals.

Answered: 19 Skipped: 43

#	Responses	Date
1	The reputation the journals is the most important point. This can only be achieved by everyday work of editors, reviewers and technical staff, and this is the main strength of IUCr journals. Next point is to explain links between crystallography and applied research whenever possible.	5/5/2016 9:49 AM
2	To my mind the key thing is to ensure that structural scientists - who might not consider themselves crystallographers - will think of IUCr Journals as a place to find the quality structural information that they need. And, as a consequence, that IUCr Journals are a suitable location for us to publish our best research. As they stand for my field IUCr Journals are used for technical work and papers with a large crystallographic content; those with a stronger physics or chemistry content would be published in those subject journals. Also for some (myself included) the requirement to provide .cif files for structural information is a barrier to choosing IUCr Journals. I realize that this is perhaps somewhat 'selfish' - as I make use of .cif files - but when using non-standard software/instrumentation their creation is very hard work!	5/3/2016 10:54 AM
3	reorient articles not accepted for review in IUCrJ to specialized journals	5/1/2016 4:51 PM
4	None. Most areas covered in the previous questions.	4/30/2016 7:19 AM
5	High impact graphical abstracts.	4/29/2016 8:38 PM
6	It is very important to increase the IF's - in very many institutions all over the world the funding is totally allocated according to algorithms based on the IF's. this is like this in my institution - i every paper produces money, that I desperately need to keep the head above water. At present the papers with the IF about 2 are excluded (I get nothing), and I need papers above about 3.5 to be counted at all. And I have to employ research staff and buy everything for this money - I cannot afford publishing below IF = 3.5.	4/29/2016 1:28 PM
7	More involvement of co-editors in some of the above-mentioned tasks. It is important that main editors receive some support from them. At present the co-editors' task is essentially limited to handling papers. Co-editors are selected that have excellent academic standing, but exactly these persons generally have less time for activities such as journal promotion or editing special volumes. This is a problem for which there is no solution, I am afraid.	4/29/2016 12:04 PM
8	You have to decide what you mean by quality. I think the IUCr Journals are high quality.	4/29/2016 6:07 AM
9	The publishing game has become very crowded and competitive. The IUCr journals are really important as they are a place for important and high quality methodology development and application. It is important to keep this focus.	4/28/2016 9:55 PM
10	Would an analysis of the demographics of the editorial boards suggest any useful changes in membership?	4/28/2016 8:18 PM
11	The quality of journals is not always proportional to the impact factor... I know many bad publications in e.g. Nature	4/28/2016 4:53 PM
12	More young and active co-editors (appropriately trained up by more experienced co-editors) should be brought on to our editorial boards - not just established figures. Thorough but fair reviewing and editing of articles, on a reasonably prompt (but not necessarily rushed) time scale, remains one of our strongest "selling points" for known good authors I talk to.	4/28/2016 3:12 PM
13	I think the reputation of iucr journals is excellent. Maybe the ABCDEF nomenclature makes them look a bit unfashionable ... Someone out of the area wouldn't know the difference between acta d and acta e, but the intended impact is quite significantly different.	4/28/2016 2:54 PM
14	IUCr as a union must fight against the rules that relate funding of researchers with impact factors of their publications - proactively and aggressively.	4/28/2016 2:40 PM
15	None at the moment.	4/28/2016 2:20 PM
16	If we really want to appeal to mainstream scientists, and I am thinking B/C here, we have to overcome the long-entrenched stigma that Acta is "for crystallographers, by crystallographers". How is another question. Or we abandon trying to be a set of broad non-specialist journals and return to former specializations.	4/28/2016 1:56 PM
17	Emphasize more on impact of the paper/journal rather than the factor!	4/28/2016 1:50 PM
18	Difficult as the quality of the journals is very high in my opinion. Do we need more frequent editions of some journals, with rapid publications times? What we need to do is get across the message that we are not just about crystallography. But is a pure organic chemist who uses crystallography to "prove" his NMR going to publish with us rather than JACS or JOC?? We need to get our community more engaged in convincing their colleagues that for every 5 structures we do for them they publish at least one full paper in B or C, for example.....	4/28/2016 1:27 PM
19	Be careful not to mistake quality (scientific content) for quantity (bibliometry). A bad paper can get many citation simply because it is bad!	4/28/2016 1:25 PM

APPENDIX D

Editor appointments survey and peer review

Contents:

Survey on editor appointments

Documents for discussion:

The importance of a gender-balanced editorial team

Close inspection (the case for involving young researchers in peer review)

Q1 Please indicate whether you agree or disagree with the following statements concerning editor appointments.

Answered: 28 Skipped: 0

	Strongly agree (1)	Agree (2)	Neither agree nor disagree (3)	Disagree (4)	Strongly disagree (5)	Don't know (6)	Total
The current appointment procedure is working well:	3.57% 1	32.14% 9	25.00% 7	14.29% 4	21.43% 6	3.57% 1	28
We are able to attract the highest quality scientists representing the potential community of the journal:	7.14% 2	42.86% 12	17.86% 5	14.29% 4	10.71% 3	7.14% 2	28
The current procedure gives a good scientific spread of editors:	7.14% 2	50.00% 14	14.29% 4	17.86% 5	7.14% 2	3.57% 1	28
The current procedure gives a good geographical spread of editors from major science nations:	10.71% 3	39.29% 11	25.00% 7	14.29% 4	7.14% 2	3.57% 1	28
The current procedure gives a good gender balance of editors:	0.00% 0	25.00% 7	21.43% 6	39.29% 11	10.71% 3	3.57% 1	28
The current criteria for the appointment of editors are appropriate:	3.57% 1	35.71% 10	14.29% 4	28.57% 8	14.29% 4	3.57% 1	28

Q2 How can we improve general procedures?

Answered: 25 Skipped: 3

#	Responses	Date
1	I don't think that there is any problem in the procedures.	5/4/2016 3:22 AM
2	Appointment of editors should be carried out on a journal by journal basis. Not all IUCr journals should necessarily have the same criteria. It depends on whether the role of the editor is to be figurehead or whether they re required to work on the paper processing on a day to day basis. The two roles are different, and figurehead editors may not have time to devote several hours per week to journal editing.	4/30/2016 7:30 AM
3	In principle the current procedure should work ok: Main Editors choose candidates, Chester researches them, Editor-in-Chief chooses most appropriate target, target invited.to send in CV, details sent to Executive Committee - if stick by these rules shouldnt be too problematic.	4/21/2016 3:37 PM
4	Speed up appointments. Allow degree of flexibility as requirements for the various journals differ. Not be too hung up on metrics. Need to make sure we get people who will work hard for the journals once appointed - personal recommendations can be useful in identifying such candidates.	4/21/2016 9:36 AM
5	- the procedure takes too much time, should go faster - sometimes the procedure starts too late? at regular time intervals the main editors together with Chester should check if new nominations are necessary	4/19/2016 11:49 AM
6	Simplify it. Less reliance on metrics which are not consistent across different areas of science	4/18/2016 12:24 PM
7	Direct communication between the Editor-in-Chief and the Main Editors is essential. Candidates who might not fit all the criteria but would still be very valuable as Co-editors should not be rejected outright, but should be considered on a case-by-case basis.	4/18/2016 11:03 AM
8	The editors should always be on the lookout for new co-editors so that they are ready to replace any that are retiring or add to the expertise on the board. The Editor in Chief should not need to get involved unless he is specifically asked to help. Once suggestions have been made the Editor in Chief should respect the choices of the editors and only in exceptional circumstances should he reject candidates. If he does reject a candidate he should give the editors a full explanation in writing of why he does not want that person so that his feedback can be used when selecting future candidates.	4/14/2016 3:29 PM
9	People's willingness to reply to email is a crucial consideration. One could get an impression of this during preliminary correspondence ? This problem is getting worse for understandable reasons. Send emails to both the scientist and his/her admin person ?	4/12/2016 4:05 PM
10	Procedures are OK, but flexibility in appointment criteria is important. Criteria that may be good for IUCrJ, A & D are potentially less suitable when trying to find people for C & E.	4/11/2016 9:30 AM
11	There is too much emphasis on metrics (eg H-index). And I don't think the Editor in Chief should be able to overrule Main Editor choices - only advise.	4/9/2016 6:50 AM
12	We need the co-editors to rate the authors they review and see if we can come up with more. Unfortunately for E this is rather hard as many of our authors are not native English speakers and this is reflected in their presentations.	4/8/2016 4:56 PM
13	It is not always clear what the criteria are for acceptable candidates: rather than being criteria which are given appropriate weight, individual factors such as H-index, standing in the community and number of keynote lectures seem to be used as single reasons to exclude candidates. We should always consider the stature and reputation of a candidate with reference to the particular Editorial Board and the associated duties.	4/8/2016 12:19 PM
14	A stellar scientist is not necessarily a good editor. I believe we have to let go of publication statistics and H-indices and look for people who are good scientists AND dedicated to the journal.	4/7/2016 1:40 PM
15	The present procedure works well.	4/7/2016 10:40 AM
16	The present procedures seem to be working well.	4/7/2016 2:57 AM
17	Unfortunately we haven't gone through a full cycle using this new procedure to know how well it is working.	4/6/2016 11:31 PM
18	Do not put geography above gender in selection criteria. If crystallography is to continue as a discipline into the future we need to look to the future not to the past for representation- we need to be more open to appointing younger up-and-comers not well-established Professors.	4/6/2016 10:55 PM
19	I am not sure	4/6/2016 5:50 PM

20	First, more responsibility should be delegated to section editors, who should be able to approach candidates to be put on a short list with a strong expectation that their recommendations will be followed. Second, there should be less emphasis on crude metrics such as H-index or impact factor of journals in which papers have been published; this excludes very able but more junior candidates.	4/6/2016 5:18 PM
21	Younger people should be taken on board. People who publish in that journal should be preferred.	4/6/2016 5:13 PM
22	We need to aim for more of a balance between established high-impact researchers and those who are active in fields of interest in other ways. A major understated requirement is that a co-editor has the time to process a reasonable number of papers each year. The most prominent active researchers in a field frequently do not have this time. Less prominent but respected figures in a field frequently will put in this time.	4/6/2016 5:11 PM
23	Either let the EiC do it all, or delegate to the journal editors	4/6/2016 5:10 PM
24	Go for quality. Geography is of secondary importance.	4/6/2016 5:09 PM
25	Make things as speedy as possible, without of course compromising scientific rigor and quality.	4/6/2016 4:47 PM

Q3 How can we improve the geographical balance of editors?

Answered: 25 Skipped: 3

#	Responses	Date
1	So far, there seems to be no problem on the geographical balance.	5/4/2016 3:22 AM
2	Look for authors from across the world who publish good papers in the IUCr journals and invite them to become referees, then co-editors before becoming main editors.	4/30/2016 7:30 AM
3	Query current Co-editors in countries where Co-editors are needed for "ideal" or "dream" candidates	4/25/2016 10:53 AM
4	Relax the h-index criterion	4/24/2016 6:41 PM
5	Decide which regions are under-represented and ask Main Editors to ONLY choose candidates from that/those regions	4/21/2016 3:37 PM
6	the current distribution should be given on the form when a new member is nominated (is the case now I believe, but the details for this item are not always given)	4/19/2016 11:49 AM
7	Need to target countries where we are publishing but are not covered on the boards	4/18/2016 12:24 PM
8	For small, specialized journals the criteria are too restrictive: getting the best people for the Editorial Board is not always possible to balance with geographical/gender balance. Over-reliance on statistics (e.g. countries of authors) for a small journal is also inappropriate.	4/18/2016 11:03 AM
9	Editors should be sought from all nations not just from major science nations. The criteria for choosing editors should be inclusive not exclusive and countries should not be ruled out.	4/14/2016 3:29 PM
10	This may require lowering the strictness of the appointment criteria.	4/11/2016 9:30 AM
11	Main Editors should give more emphasis to this.	4/9/2016 6:50 AM
12	Every co-editor who attends a conference around the world could pick some good candidates they meet or have heard.	4/8/2016 4:56 PM
13	In addition to current approaches, we should target particular regions which are under-represented and ask for recommendations from leading trusted scientists.	4/8/2016 12:19 PM
14	Trust the Section Editors. They will do this.	4/7/2016 1:40 PM
15	Involving more scientists from established institutions in China and Taiwan.	4/7/2016 10:40 AM
16	Improve the geographical spread of talent.	4/7/2016 2:57 AM
17	better information about people working in regions that we are less familiar with would be a great help. Not sure how to do that, for sure, but it would certainly help.	4/6/2016 11:31 PM
18	Evaluate the data to find out where we are lacking representation. Ask regional and country crystal organisations for nominations from poorly represented countries.	4/6/2016 10:55 PM
19	Just pay attention with appointing new editors	4/6/2016 5:50 PM
20	It would help to follow the suggestion to delegate more responsibility to section editors. Attempts in the past to come up with a balanced list of candidates have been blunted when a large fraction of the suggested candidates is excluded.	4/6/2016 5:18 PM
21	Proactively go to Asia.	4/6/2016 5:13 PM
22	We have to take some risks! Those in countries new to publishing in our journals will need a learning curve. In some cases, it may take a year for an individual to decide whether they like the editing role - and for us to decide whether they will work out in the longer term as a coeditor.	4/6/2016 5:11 PM
23	Be pragmatic	4/6/2016 5:10 PM
24	This is desirable but it should not be a top prioroty. Quality must come first.	4/6/2016 5:09 PM
25	'Networking' in Asia	4/6/2016 4:47 PM

Q4 How can we improve the gender balance of editors? (Note that a number of high-quality female candidates have declined our approach - are there lessons that can be drawn from this?)

Answered: 26 Skipped: 2

#	Responses	Date
1	The gender balance is important, but it should reflect the reality, that is, the actual gender ratio of scientist population in the scientific field.	5/4/2016 3:22 AM
2	We need to make a concerted effort to attract high quality female candidates and the editors from each journal should be encouraged to draw up a list of high quality female candidates.	4/30/2016 7:30 AM
3	Although current Co-editors are asked for suggestions for new Co-editors as part of the process of getting ideas for new Co-editors, current female Co-editors could be asked specifically for suggestions.	4/25/2016 10:53 AM
4	If more female Co-editors are required then ask Main Editors to ONLY/MAINLY choose female candidates, even if it means possible top choices are not approached	4/21/2016 3:37 PM
5	In order to improve this in the long term, we need to involve women at earlier stages of their careers to foster a relationship with the Union	4/21/2016 9:36 AM
6	the current distribution should be given on the form when a new member is nominated	4/19/2016 11:49 AM
7	Keep trying!	4/18/2016 12:24 PM
8	For small, specialized journals the criteria are too restrictive: getting the best people for the Editorial Board is not always possible to balance with geographical/gender balance.	4/18/2016 11:03 AM
9	Criteria such as H index should not be used to select candidates as these are biased against female candidates. The criteria should be relaxed and the focus should be placed on individual candidates actual abilities and suitability for the post rather than on statistics. More women could then be put forward. What the role entails could be explained more clearly to candidates so that they can see how easy it would be for them to carry out the tasks required.	4/14/2016 3:29 PM
10	try younger women ?	4/12/2016 4:05 PM
11	This and the reluctance of others to become involved might reflect the perceived workload of co-editors. We all have more duties thrust on us by our institutions, so finding time for such work can be a tough ask. Female scientists may feel the pressure to perform more than their male colleagues. Some journals provide office staff to do all the daily chores of writing to and interacting with authors.	4/11/2016 9:30 AM
12	The most high-profile female candidates often have too many demands on their time. We need to look to emerging female scientists as well.	4/9/2016 6:50 AM
13	This is not surprising as many are already working 200% with work and family.	4/8/2016 4:56 PM
14	We should recognise that high-profile female candidates tend to be overburdened with such requests. We therefore need to identify and invite "rising stars" who are not yet so committed (this applies generally, and not only to female candidates).	4/8/2016 12:19 PM
15	Trust the Section Editors. They will do this. The lessons are that the high-quality female scientists who have declined are most probably not dedicated to IUCr or the journal. A unilateral view on H-indices etc. is in this respect counterproductive.	4/7/2016 1:40 PM
16	No specific suggestion	4/7/2016 10:40 AM
17	I suspect many females in academia are under constant pressure to serve a variety of roles in order to achieve "gender balance" so it is not surprising that qualified candidates are obliged to decline our invitations.	4/7/2016 2:57 AM
18	same as above, though in general we have a better knowledge of good women candidates. Realistically, it will be necessary to shoot for women earlier in their career to converge this just because there are fewer of them to choose from. I am guessing that women candidates also have higher service demands placed on them (review committees and advisory boards and so on) for precisely the same reason...that there are fewer of them in the community. Again, this points to the fact that we may have to shoot for people earlier in their careers.	4/6/2016 11:31 PM

19	Do not put gender last as the selection criteria, put it first. Make sure that we have a target that is representative and set in place procedures to reach that target. IUCr should establish a register of women crystallographers that can be used not just for editor selection but also to assist speaker selection at conferences. We should look for unconscious bias in our selection process and discuss this openly to develop protocols to mitigate against. We should have women only rounds of appointment to address historic imbalance. We should not use hard metric selection criteria that do not take into account career disruptions or unconscious bias.	4/6/2016 10:55 PM
20	Keep trying	4/6/2016 5:50 PM
21	As in the case of geographical balance, if section editors were given more responsibility for the choices and had reasonable confidence that their choices would be used, they would be able to contact potential candidates in advance and confirm that they were willing to serve. In that way, balance would not be lost to those who decline having not been sounded out beforehand. In general, the relatively smaller number of senior women in science receive a proportionally larger share of invitations to serve the community, so they will be more likely to have to decline at least some invitations.	4/6/2016 5:18 PM
22	No need.	4/6/2016 5:13 PM
23	In many countries it remains true that women in research feel they must perform competitively to be successful. Thus, the issue of time commitment as a coeditor is frequently more critical. Someone who published regularly in the journal and is reasonably well respected may be in a better posiiton to make such a commitment than a high-flyer who spends 150 % of their time producing the papers that give them their high impact.	4/6/2016 5:11 PM
24	I suspect individuals who decline do not publish in or value the IUCr collection of journals. We should be pragmatic about choice of editors.	4/6/2016 5:10 PM
25	Appointing more women is an absolute must. It is more important than geography. We should go for quality but must recognise that women are overwhelmed by demand to sit on commottees, boards, etc. An idea: Why don't we ask who would like to be an editor? This could be done at some IUCR meeting. Then we should discuss, interview and select.	4/6/2016 5:09 PM
26	??? Sorry, I wish I knew the answer.	4/6/2016 4:47 PM

Q5 Has the scientific spread of editors improved in response to the wider remit of your journal?

Answered: 23 Skipped: 5

#	Responses	Date
1	About the same	4/30/2016 7:34 AM
2	There have not been many appointments recently, but the spread of Co-editor expertise has widened to include those with more of a chemical background	4/25/2016 10:53 AM
3	Yes	4/21/2016 3:40 PM
4	yes	4/19/2016 11:51 AM
5	I don't believe so.	4/18/2016 12:31 PM
6	Yes, but many of the new Co-editors are uncomfortable with handling papers that are not in their area of expertise. The board needs to have enough members with wide enough interests to be able to handle the range of topics that the journal covers.	4/18/2016 11:16 AM
7	Not enough new co-editors have been appointed to cover the areas involved. Some candidates have declined and the Editor in Chief has also rejected a number of suggestions.	4/14/2016 3:29 PM
8	No	4/11/2016 9:35 AM
9	To some degree. But few new appointments have been made to IUCrJ.	4/9/2016 6:53 AM
10	no?	4/8/2016 4:58 PM
11	Yes, but there is still work to do.	4/8/2016 12:19 PM
12	No. The reason is that most candidates put forth by the Section Editors have been declined by the Editor-in-Chief.	4/7/2016 1:47 PM
13	Yes. More expertise in free-electron-laser technology and applications, now.	4/7/2016 10:44 AM
14	No idea of the correlation.	4/7/2016 2:59 AM
15	yes	4/6/2016 11:32 PM
16	No. The wider remit has only just occurred.	4/6/2016 11:02 PM
17	Not sure	4/6/2016 5:51 PM
18	To some extent, this has happened. We could still do better.	4/6/2016 5:36 PM
19	Yes, it has.	4/6/2016 5:23 PM
20	Yes.	4/6/2016 5:23 PM
21	One journal has a very broad remit; the others less so. The remit of my journal cannot become any wider.	4/6/2016 5:15 PM
22	Maybe	4/6/2016 5:15 PM
23	Acta E has just re-launched and we appear to have an excellent team of chemical crystallographers on board. The focused nature of E means that we should expand the 'scientific spread' of editors with care...	4/6/2016 4:53 PM

Q6 How can we improve the scientific spread of editors further?

Answered: 23 Skipped: 5

#	Responses	Date
1	I have no better idea.	5/4/2016 3:33 AM
2	Through identifying good papers in the journals from across the world and inviting the authors of those papers to interact more with the journal.	4/30/2016 7:34 AM
3	Identify new areas or areas that are under-presented and ask Main Editors to ONLY choose candidates from these areas	4/21/2016 3:40 PM
4	Need to be aware of emerging areas and appoint people involved in these fields	4/21/2016 9:37 AM
5	Personal knowledge of candidates from the current editorial board should be considered.	4/18/2016 12:31 PM
6	Restricting the number of Co-editors on the board according to a blunt calculation based on the number of papers submitted to the journal is inappropriate for journals that need to cover a wide range of topics.	4/18/2016 11:16 AM
7	The criteria for candidates should be relaxed so that younger scientists in different areas can be suggested. At present a high-profile scientist established in an area that isn't crystallography may not want to join what is perceived as a crystallography journal. We could explain that we value their expertise in their subject area.	4/14/2016 3:29 PM
8	We could, if appropriate nominations are made. I am not sure that I know enough people to cover the areas. But it is also important that people with special expertise can also handle knowlegably the more routine crystal structure papers C (still) receives. People able, and willing, to do both may be rare.	4/11/2016 9:35 AM
9	By appointing more.	4/9/2016 6:53 AM
10	see answer on page 3/5	4/8/2016 4:58 PM
11	If a journal wants to develop a presence in a new area, it should be prepared to appoint a specialist co-editor in that area. If that co-editor is also able and willing to handle more general papers that is a bonus, but we should not insist on it.	4/8/2016 12:19 PM
12	The question is, should we? I am not so sure about that. Of course we want crystallographers with complementary expertise. If we follow this route, this is not difficult. But do we really want other expertise come in, without the crystallography background? My answer to that is no.	4/7/2016 1:47 PM
13	Is fine as it is.	4/7/2016 10:44 AM
14	I feel the spread is adequate.	4/7/2016 2:59 AM
15	yes, definitely	4/6/2016 11:32 PM
16	Allow the section editors more autonomy in the decision.	4/6/2016 11:02 PM
17	Again, pay attention during appointment of new p\eople	4/6/2016 5:51 PM
18	Bringing in new Guest Editors for Special Issues in a new field might be the best way. If working with an established editor, the new person can get a feel for what the editing role is, and is not. Meanwhile, we can get a sense of who might make a good new co-editor. We can then follow up with an invitation a month or so after the Special issue work is done.	4/6/2016 5:36 PM
19	My impression is that we are doing ok here.	4/6/2016 5:23 PM
20	Once a significant number of papers reflecting the wider remit has been published, it will be easier to recruit editors reflecting that wider remit, as they will feel more that this is their journal.	4/6/2016 5:23 PM
21	Be realistic	4/6/2016 5:15 PM
22	Newer areas	4/6/2016 5:15 PM
23	Editors with more awareness of biological chemistry.	4/6/2016 4:53 PM

Q7 How can we make the appointment process more streamlined?

Answered: 24 Skipped: 4

#	Responses	Date
1	The present process is streamlined enough.	5/4/2016 3:33 AM
2	One size does not fit all. A faster appointment process is likely if editors with the correct skill set for the journal are identified and approached.	4/30/2016 7:34 AM
3	If the guidelines are followed then maybe we do not need to streamline	4/21/2016 3:40 PM
4	Clear feedback if candidates proposed by Main Editors are rejected by the Editor-in-chief	4/21/2016 9:37 AM
5	initiate it at regular time intervals, even if no changes are immediately necessary it is good to check it once again and to handle proactive	4/19/2016 11:51 AM
6	Just needs simplifying	4/18/2016 12:31 PM
7	Direct dialogue between the Editor-in-Chief and the Main Editors. Rejection of a candidate by the Editor-in-Chief should only be after full and open discussion on their possible strengths and weaknesses with the Main Editors.	4/18/2016 11:16 AM
8	Let the editors choose the candidates they want to put forward and respect their judgement. Only involve the Editor in Chief at a late stage where he should only be able to reject candidates in exceptional circumstances and always have to give a written explanation if he does so. This would reduce the time wasted on candidates that are not accepted by the Editor in Chief , and remove the need for undergoing numerous rounds of the selection process to get the necessary number of new editors.	4/14/2016 3:29 PM
9	Perhaps allow main editors to choose the people they want, regardless of the candidates fitting the criteria, as long as no "clangers" are made.	4/11/2016 9:35 AM
10	Not sure that this is necessary.	4/9/2016 6:53 AM
11	not sure	4/8/2016 4:58 PM
12	Improve and clarify the criteria for suitability of candidates.	4/8/2016 12:19 PM
13	Co-editors should be proposed by Section Editors and should in general be approved. I think the Section Editors know their community best and they know who is dedicated to the journal and would do good work.	4/7/2016 1:47 PM
14	Perhaps, streamline consultation round with the full executive committee. Essential is that Main Editors and the Editor in Chief agree on candidates and appointments.	4/7/2016 10:44 AM
15	The appointments procedure seems to work well.	4/7/2016 2:59 AM
16	not sure. The current one seems, on paper, to be a reasonable balance between our needs to move quickly and the need of executive committee and chief editor to have their oversight.	4/6/2016 11:32 PM
17	Allow the section editors to make the decision on the final list of people to be approached.	4/6/2016 11:02 PM
18	Not sure	4/6/2016 5:51 PM
19	We could consult the existing editorial board more. With the Chester office, we can determine new and forthcoming needs for new co-editors, main editors can prepare a proposed slate of candidates, the co-editors could be solicited for comments and recommendations (and possibly further suggestions). Then a short list with perceived requirements (fields, geography, gender, etc.), plus summarized recommendations for each candidate, should be drawn up and submitted to the EIC, with the minimum number of new appointments required indicated (decided by the Main Editors and Chester office). The EIC should then indicate who should be asked to fill the minimum number of appointments (perhaps with a reserve or two if there is a critical need for multiple new co-editors). The EIC should refuse to approve the requested minimum number of co-editor replacements only in exceptional circumstances.	4/6/2016 5:36 PM
20	The scientific quality and zeal of an editor influences the quality and standard of a journal. We must be sure that we appoint editors who are up to the required standards. If this takes time, so be it. But when the case is obvious we should push through the appointment fast.	4/6/2016 5:23 PM
21	Again, delegate more responsibility to section editors.	4/6/2016 5:23 PM
22	The process is streamlined but gets blocked by conflicting opinions	4/6/2016 5:15 PM
23	No comment	4/6/2016 5:15 PM
24	It's working OK at the moment	4/6/2016 4:53 PM

Q8 Are we able to attract the best candidates to serve as editors?

Answered: 25 Skipped: 3

#	Responses	Date
1	We will be able to attract more candidates if editors are paid better.	5/4/2016 3:33 AM
2	This is becoming increasingly difficult, as the workload for academics across the world seems to be ever increasing.	4/30/2016 7:34 AM
3	I do not see why we shouldn't	4/21/2016 3:40 PM
4	Not always. It is easier to get people to agree if they have published with us or feel some connection to the IUCr. Some prominent people do not have the time.	4/21/2016 9:37 AM
5	yes	4/19/2016 11:51 AM
6	Probably but some candidates are just too busy to effective editors. Younger scientists should be given more opportunities in these roles	4/18/2016 12:31 PM
7	Yes.	4/18/2016 11:16 AM
8	It depends what best means. The criteria suggest that we want people at the top of their profession who are heavily involved in publishing and attending conferences. By definition these are busy people and may not be able to devote enough time to the journal. If they do not have enough time they will not be able to do a good job for the journal and so won't be the best. Those earlier in their careers may have more time and be more enthusiastic. They will be closer to the people actually doing the research and authors.	4/14/2016 3:29 PM
9	In the XFEL crystallography community, IUCrJ has definitely established a niche in which it is highly regarded. This is a word-of-mouth effect, due partly to a reputation of good refereeing and fast publication amongst authors. Because of this, it should be possible to find editors. So the standing of the journal among the researchers is the main influence on attracting editors.	4/12/2016 4:08 PM
10	Probably not. See my comment to the gender question on workload. In general, I think people have far less time these days, compared with 20 years ago, for being able to be involved in editorial duties. The best candidates may already be working for other journals, and in any case can afford to be choosy.	4/11/2016 9:35 AM
11	No. We have some truly excellent editors, but they agree out of loyalty to IUCr. Beyond these, our journals are not rated highly enough.	4/9/2016 6:53 AM
12	yes	4/8/2016 4:58 PM
13	The answer is sometimes. IUCr uses a model that can often involve a lot of low-level work by the co-editor. Co-editors on some journals put a lot of effort into ensuring that the nuts and bolts of language and scientific logic are improved. This adds real value to the journals overall, but many candidates may not find this attractive, especially if they have served as associate editors on journals that do things very differently.	4/8/2016 12:19 PM
14	The question is again, who is the best candidate. The candidate with the highest H-index or the one most dedicated to the journal. In my opinion it is the latter, and it is very clear that the Section Editors are in the best position to make the choices.	4/7/2016 1:47 PM
15	I believe so	4/7/2016 10:44 AM
16	The best Editors are those who are scientifically capable, can read and write in English, and are able to dedicate the appropriate time to editorial tasks.	4/7/2016 2:59 AM
17	so far so good for us, but maybe we have been lucky.	4/6/2016 11:32 PM
18	How do we define best? Do we look at every possible person in the world and compare them one against the other relative to opportunity and keeping in mind our targets for gender, geography and science. No of course we don't. We are all subject to bias and we all think we are not biased. In my opinion, the best candidates for new editors will be diverse and representative of the society, will be mid-career researchers with a growing national or international profile and will have strong work ethic and commitment to cooperation and working together for the good of the discipline. Do we select the best candidates using those criteria. No we do not.	4/6/2016 11:02 PM
19	By personal contact and persuasion	4/6/2016 5:51 PM

20	It depends what we mean by "best". For prominent figures in any given field, this process will always have an element of luck because of the long-term time commitment being requested. However, having some such figures on the board is indeed important for attracting good papers in various fields. Active, respected, but perhaps less well known researchers tend to make very good co-editors if they already publish in our journals, and particularly if they have served well as a Guest co-editor on a Special issue. There is some overlap between this 2nd group and the 1st "prominent researchers" group, but many have yet to achieve prominent status. However, they can function as excellent co-editors, and they will attract good papers from authors confident their submission will be treated fairly and in a timely way. This is another definition of "best".	4/6/2016 5:36 PM
21	We are not searching wide enough. Or so I feel. We could do better.	4/6/2016 5:23 PM
22	We are able to attract excellent candidates from people who publish frequently in our pages and thus feel part of the community, and I would argue that these are probably the best candidates. However, some high-profile individuals will prefer to hold out for the journals with higher impact factors that they publish in.	4/6/2016 5:23 PM
23	Difficult to answer; my best suggestions are declined	4/6/2016 5:15 PM
24	No	4/6/2016 5:15 PM
25	Yes, in terms of quick work, sceptical (but fair) checking of structures and good crystallographic judgement, which is FAR more important than big names with high statistical metrics...	4/6/2016 4:53 PM

Q9 Please add any additional comments you have regarding editor appointments.

Answered: 19 Skipped: 9

#	Responses	Date
1	I don't have any additional comments.	5/4/2016 3:34 AM
2	We would benefit from a major review of the process.	4/30/2016 7:34 AM
3	More use could be made of the Co-editors' expertise and contacts. The current h-index criterion is too restrictive. Section Editors could be allowed to take greater responsibility the election of their own Editorial Boards.	4/24/2016 6:46 PM
4	It was mentioned at the previous Journals Board meeting that to fill, for example, one position a number of potential candidates should be approached and asked to send in their CV and then the choice be made of who to appoint. I think it would be better to only approach candidates once we know we want them rather than asking for their CV and then informing them they have not been successful.	4/21/2016 3:45 PM
5	For Acta E and IUCrData it is necessary to appoint persons that have enough experience with structure determinations on a routinely basis which is not necessarily the most famous crystallographer of course. In this sense the criteria used for nomination can be different from the other journals.	4/19/2016 11:55 AM
6	The current system is burdensome for the Main Editors, who are required to put forward very many names in order to get one or two appointments. It also relies too heavily on blunt statistics and should take more consideration of the particular needs of each journal.	4/18/2016 11:19 AM
7	At the moment the process does not work as well as it should. The Editor in Chief should delegate more of the decision making to the editors. The editors should be trusted by the Editor in Chief and allowed to make unopposed choices for new co-editors. There should be more transparency if candidates are rejected. The criteria should be relaxed to allow younger, less well known candidates of different backgrounds, nationalities or gender to be suggested as well as more more prominent scientists. Having a number of prominent people on the board may be good to attract authors but they may not be willing or able to carry out the day-to-day work efficiently. To attract candidates we could provide more training and explain what is involved so that they are not put off.	4/14/2016 3:29 PM
8	Find out in advance if they reply to email. (Deal with their admin person more, where this exists ?)	4/12/2016 4:09 PM
9	I do not choose a journal for my paper because of the name of the editor who might handle it, but rather the reputation and relevance of the journal to my work. Thus I suggest we probably do not need to rely on the criterion of an editor "being able to attract high-quality papers". For C, at least, we need editors who can do a good, competent and fair job, so as to maintain or improve the reputation of the journal, because authors feel well treated. Whether or not that person has a high H-index or is 40+ years old is less important.	4/11/2016 9:39 AM
10	I have had little recent involvement in co-editor appointments, since becoming Main Editor for IUCrJ.	4/9/2016 6:55 AM
11	We discuused this subject 2 years ago and for E I am not aware of any progress.	4/8/2016 4:59 PM
12	We should recognise that identifying and successfully inviting suitable candidates is often challenging, even without aiming for a good gender and geographical balance. We should of course strive to achieve this, but concede that it will never be perfect.	4/8/2016 12:20 PM
13	It would be great if the Editor-in-Chief would put more trust in the Section Editors. Too much top-down micromanagement always erodes enthusiasm and leads to frustration. The net result is stagnation.	4/7/2016 1:51 PM
14	For attracting female candidates, one should perhaps make their tasks lighter in view of the fact that many of them need to balance family and professional activities more so than males. So, one can agree that the number of papers to be handled is kept somewhat lower, etc.	4/7/2016 10:47 AM
15	all said above	4/6/2016 11:32 PM
16	The process is flawed and will continue to recapitulate the status quo unless we make major overhauls and recognise our own inherent biases.	4/6/2016 11:03 PM
17	The current situation is not so bad	4/6/2016 5:52 PM
18	I think it is important to develop a more streamlined and transparent method of appointing new co-editors. I hope my answers to previous questions have addressed some of the issues. Finally, I would like to mention that it should be common for co-editor candidates to be considered multiple times (if not initially accepted). Not only do individual career profiles develop and evolve, but the journal co-editor needs also evolve, as people come and go. Obviously, if a strongly negative issue is raised for not selecting any given candidate, that point should not be forgotten, and should be addressed, if the same candidate is considered again on a future occasion.	4/6/2016 5:42 PM
19	Better journals attract better editors	4/6/2016 5:15 PM

The importance of a gender-balanced editorial team

Narrowing the gender gap begins with all of us

By Deborah Logan Posted on 7 March 2016

Share story:

Last year I attended an international meeting where we hosted a special reception for the editorial board of one of our key journals. As I greeted and mingled with editors and board members, something very quickly dawned on me. In a room of almost 80 people, all of them were men. Except for me. I am no stranger to being in scientific meetings where women are sometimes underrepresented, but still, this was the first time I'd been quite so outnumbered. I raised it as an observation with a few people at the reception, but it was only when I pointed it out that people seemed to notice that the balance was very definitely…unbalanced.

Initial investigations

So I started to wonder how representative this was across all of the titles in this particular programme. Energy is an area that – on the surface at least – seemed to attract as many women as men into research, certainly judging by the number of participants at the conference. It didn't take long before I discovered that we had only 6% editors-in-chief who were women, yet contributions from women authors globally made up around 30% of submissions to those journals – or so we believe. It is a number that is difficult to track as many women still use initials for fear of bias. Either way, it was certainly clear to me that our journal editorial teams, as a whole, did not seem to be truly reflective of the community that supported them. Likewise, I investigated the Earth portfolio and although the number of female Editors was higher - at 11% - it was still lower than the composition of the research community it represents.

I'm not suggesting that we should all strive to bring together editorial boards that are direct mirror images of the male - female author ratios who write the articles. I do think however that we can all play a small role in closing this noticeable gap.

The first step in changing something like this on a global stage is to **create awareness** of the matter in the first place. That is the main purpose of this article.

The right candidate versus the right gender

Avoiding the "J.K. Rowling Syndrome"

I recently recruited a new publisher to the team from the academic world. She freely admitted that she preferred using initials instead of her first name when submitting her work for publishing. There was clearly a concern that

her name would go against her in either getting published in the first place or post publication when people came to read her work.

We could almost call this the “J.K. Rowling Syndrome” after one of the worlds’ best-selling authors of fiction was advised not to use her first name when publishing her Harry Potter series of books. Her publishers feared that the target audience (young boys) would not read a book by a woman.

Is this also happening in scientific publishing? Are some women afraid of using their first name for fear of prejudice in the peer review system or indeed, after the paper is published? Feel free to comment below…

So why does this matter? Does having a more gender-balanced and diverse editorial team actually add any value to a journal’s development? Well, yes, I think it does. Several studies document unconscious bias towards women in science. Many of these show that the publication record has a bias against women in terms of papers published and citations generated. Also some female scientists have come forward to say that they increasingly look at the balance of the composition of an editorial team when deciding where to submit their best work, so that they feel less at risk of bias. Whether that bias is real or imagined, it is increasingly important. Scientists should feel that their work will be treated fairly. The editorial board - the human face of the journal - conveys that sense of balance and fairness.

Naturally, it’s vital that the right candidate joins an editorial board based on his or her experience, background and knowledge. It is also true that some communities have a bigger pool of people (men and women) from which to choose the right candidates.

But I wonder why there are so few women on our boards? Is it because the role of an editor doesn’t seem attractive? Are women more reluctant to join because of a lack of understanding on what the editorial role is? Is it our messaging? Or is it simply because we are not asking them?

Perhaps we need to do more from within Elsevier of communicating the role and responsibilities in a clearer way, and I’m certainly encouraging this within my own team. And if we’re just not asking women to join, then that is something too I’d like to discourage. Let’s try to do away with all-male shortlists.

As we reach the end of this article I wanted to share something that I recently came across on YouTube. It was a video prepared by the UK’s Royal Society on unconscious bias. At the end, they list 4 recommendations for their panel members to consider:

- Deliberately slow down decision-making
- Reconsider reasons for decisions
- Question cultural stereotypes
- Monitor each other for unconscious bias

I’m now hoping to encourage editors - both men and women - to think about these points when appointing editorial team members, approaching reviewers, and creating journal award committees. Think about the community that your journal serves; think about roadblocks facing your authors at their institutions, in their home countries, in their research. Make your journal a home where they know their work will be treated fairly, without prejudice or bias, and where they will want to return.

Of course we should continue to look for the right people for the positions available but be a little bit more aware of the gender gap. If an opportunity arises where we can do something to help narrow this gap within STM publishing, it is our duty to do so.

PERSONAL TRIUMPH Regaining health, gaining a degree **p.281**

EXPO IN SAN FRANCISCO Recap of Naturejobs in the 'City by the Bay' **go.nature.com/51ssik**

NATUREJOBS For the latest career listings and advice **www.naturejobs.com**

RETROROCKET

PEER REVIEW

Close inspection

To improve your own papers, learn how to evaluate other scientists' work.

BY QUIRIN SCHIERMEIER

Before she had even defended her doctoral thesis, Brazilian student Rita Santos began to receive requests for her expert opinion. Her work on beak development in octopus larvae — along with her knowledge, care and keen judgement — had left an impression on scientists in the field and early on in her career, she was invited to become a peer reviewer.

Matthias Starck, a zoologist at the Ludwig Maximilian University of Munich in Germany and editor-in-chief of the *Journal of Morphology*, sent an invitation to Santos after receiving a recommendation from her supervisor. "I was a bit hesitant at first," he says, "but the reports she turns in are just superbly thoughtful and well written."

Peer review is the backbone of modern science, and academic researchers are expected to participate in the endeavour. Although time consuming, delving deeply into someone else's paper can benefit a scientist's own work. The process allows peer reviewers to read about research before it is generally known and to gain insight into how other scientists write manuscripts and present data. "I've learned a lot about science and the process of publishing it," says Santos, who studies marine ecosystems at the Alfred Wegener Institute of Polar and Marine Sciences in Bremerhaven, Germany. "And you learn how to be critical without being impolite or discouraging to others."

Whether or not they plan to pursue an academic career, junior researchers should get involved in peer review, says Sarah Blackford, a career adviser with the Society for Experimental Biology in London. "Not only will it help you to hone your power of judgement," she says, "but it is also a great way to broaden your knowledge and demonstrate transferable skills for offering an authoritative view to your peers".

HAND-ME-DOWN PAPERS

Young scientists typically get their start as reviewers through supervisors or lab leaders, who may be overburdened or need to turn to junior team members who are familiar with specific methods or technology. Graduate students generally are not recognized for their ability to conduct independent peer review unless, like Santos, they are already establishing an academic reputation by publishing first-author papers. But they can gain experience by helping their supervisors or senior colleagues to prepare reviews.

"If I am too busy, or a manuscript is a little outside my field, there is nearly always an opportunity to propose postdocs and other early-career researchers who have expertise in the area requested," says Ros Gleadow, a plant physiologist at Monash University in Melbourne, Australia. "They might then get invited by the journal to conduct the review."

Even if they aren't invited, another natural first step is to review a paper jointly with seasoned colleagues or under their mentorship, says Emma Ganley, co-editor-in-chief of the journal *PLoS Biology*. Senior scientists might be better placed to judge a finding's weight and general significance, but junior researchers are often more up to date on methods and technology — proficiencies that any journal editor will appreciate.

"Young reviewers are extremely good in raising technical issues such as those related to microscopy or molecular techniques," says Bernd Pulverer, head of scientific publications at the European Molecular Biology Organization (EMBO) in Heidelberg, Germany. Editors of EMBO journals encourage senior reviewers to involve trusted early-career lab members in peer reviews, provided that they have done experimentation in the relevant field. Their background experience will ▶

help them to carry out the key components of peer review: they must be able to assess whether work is new to the field and original enough to deserve publication — and by the journal in question.

They need to be able to evaluate the quality of data, look for potential inconsistencies and ascertain whether the methods and experiments are appropriate. If they see flaws or holes, they will be expected to suggest that the authors do more analysis or more experiments. And if they think that a paper is incomprehensible or biased (or plain tripe), they are obliged to tell journal editors just that.

Reviewers will assess whether a study is conceptually valid or technically sound, if its arguments are coherent and if claims and conclusions are sufficiently backed up by the data. Many journals will also ask whether the results challenge or confirm established concepts, and if they significantly advance the field at hand.

"Don't try to dictate to us what we should be publishing, but do provide strong arguments and detailed justifications of any statements you make," says Karl Ziemelis, chief physical-sciences editor at *Nature*. "Just saying that this or that isn't a big deal in your field is much too vague. We would like to know why you think so, and how you came to that conclusion."

THE STARTING GATE

New reviewers may be uncertain of what they are expected to produce and how overtly critical they should be. "I knew I was to assess the scientific strengths and weaknesses of the manuscript," says Santos. "But I wasn't quite sure, at first, how deeply I should go into things like length, structure and language." If they are at all confused, they should consult a seasoned reviewer, or contact the journal editor who commissioned the review, advises Ziemelis. They should also tell the editor if they feel that they might lack competence — or the time — to do a proper review. If the field in question is too distant from their own niche, they may need to decline to review a manuscript, or suggest someone who is more appropriate.

Marine ecologist Rita Santos out in the field.

RITA MELO FRANCO SANTOS

"Do tell editors if you are happy to comment on one aspect of a paper but not on another," says Pulverer. Journal editors also appreciate it when a researcher recommends colleagues who might be better placed to evaluate a paper or any specific aspects of the science. If a peer reviewer brings in a student or technical specialist to help out, those people should be named as contributing reviewers.

Similarly, Ziemelis says, researchers should tell the journal editor if they think that they are too closely affiliated with an author to judge the science neutrally. Any conflict of interest — personal, financial or owing to direct competition — renders a scientist unsuitable as a reviewer. It is always better to over-declare than to under-declare, says Irene Hames, an independent publishing consultant in York, UK, and former director of an international organization called the Committee on Publication Ethics.

Novice reviewers should also find out whether the journal offers 'double-blind' peer review, in which authors can request that their names and affiliations be withheld. A reviewer will need to decide whether she or he is comfortable reviewing the work of an anonymous author. Conversely, in the case of 'open' peer review, the author's and reviewer's identities are disclosed. But this model offers new reviewers the chance to look at what others have written and how authors have responded to comments.

If a junior researcher is contacted by a journal that they have never heard of, they should be cautious. An invitation from what might be a new or relatively unknown small journal isn't necessarily a reason to decline, but journals with questionable peer-review and publishing standards are increasing in number. If a journal says that it is open access, researchers should check whether a journal is listed on the Directory of Open Access Journals (www.doaj.org) or the Open Access Scholarly Publishers Association (www.oaspa.org). They should look for recognized experts on a journal's editorial board, and contact them to verify credentials and peer-review standards.

THE WRITE UP

The review itself involves several steps (see 'Become a peer-review legend'). The first is to plan enough time and to stay in close contact with editors. There is no one-size-fits-all estimate for how long it takes to write a good review, but scientists should expect to spend at least eight hours and up to several weeks, say veteran reviewers.

Sloppy work or unresponsiveness might prompt editors to drop a reviewer — which could mean losing the respect of peers and colleagues and diminishing the chance of being added to editorial boards. It could also taint a researcher's reputation with editors of journals in which they may want in future to publish their own work.

After an initial general read of the manuscript, novice reviewers should wait a full day or so before getting into the technical details and starting to draft a properly phrased review, says structural biologist Stephen Curry of Imperial College London. "Sit back and think

NUTS AND BOLTS

Become a peer-review legend

- Formal courses in peer review are rare or absent, so seize the opportunity if lecturers offer exercises in discussing papers. Journal clubs are also a helpful way to gain some experience.
- To become a reviewer, you need to make yourself known. A good way to build up trust with journal editors is to approach them at conferences and meetings and show them your work.
- Once you get a manuscript, read it through once, carefully. Let it settle a day before you proceed.
- Establish whether the science is compatible with the scope of the journal.
- Outline the novelty of the science and judge the significance of the results: how do they advance the field?
- Comment on the quality of the science and validity of the results.
- Ask yourself the following questions:
  Is the argument logical?
  Are the methods suitable and results plausible?
  Are the findings adequately described and discussed?
  Are the claims and conclusions justified by the data?
  Is the interpretation of the data appropriate in light of available theory?
  Have the authors conducted all appropriate controls?
  Is there adequate replication?
  Are key papers in the field cited?
- Give an opinion as to whether the paper should be published, revised or rejected.
- Describe any extra experimentation or data analysis needed to warrant publication.
- Ask journal editors for feedback: what was your review like? Was anything missing? Q.S.

how you would like a constructive review to be written if you were the author of the paper," he says. Snarkiness or scorn should not be present. "Derisiveness, aggressiveness or rivalry have absolutely no place in a review," Curry adds.

The document should start with a short, cohesive summary of the paper, says Pulverer, followed by comment on experimental design and the validity of controls. A key point of any review of biological work, he says, is whether the data and their interpretation support the reported findings. "We'd like reviewers to outline precisely what extra tests they think are needed and why," he says. Reviewers should also make clear whether more experiments are essential or merely desirable.

The specific technical and editorial advice that reviewers are expected to provide depends largely on the subject area and the scope of a journal. Validating a twist in string theory or cosmology calls for a different approach than reviewing the results of an astronomical observation, geological fieldwork or clinical trials. If asked to assess theoretical work, a reviewer should focus on equations and their interpretation.

Most studies will require reviewers to examine observational and experimental data contained in supplementary material (or external repositories) and their representation in graphs and figures.

"Think how you would like a constructive review to be written if you were the author."

Reviewers should check guidelines for authors and reviewers carefully to be sure that they properly understand a journal's scope, how novel and 'big' any science must be to get published there, and whether referee reports and the authors' responses will be published online.

If the latter is the case, as it is for the EMBO journals, scientists should look at other reviews and authors' responses. This is a good way for novice reviewers to get a sense of the appropriate length and structure expected, and of the journal's overall review process, says Hames. If such information is ambiguous or unavailable, they should ask the journal for specifics.

Assessing the work of others nurtures critical thinking in ways that few other ventures can match. But at the end of the day, says Alaa Ibrahim, an astrophysicist with the American University in Cairo, it is good for authors to have others dissect their submitted work. "The worst thing," he says, "is that your science gets published just to be proven faulty or wrong soon after." ■

Quirin Schiermeier *is a* Nature *correspondent in Munich, Germany.*

TURNING POINT
Intelligence programmer

Computer scientist Damien Anderson overcame a lengthy illness to pursue an award-winning PhD project in artificial-intelligence (AI) research at the University of Strathclyde in Glasgow, UK. After regaining his health, he had to wrestle with a crisis of confidence.

UNIV. STRATHCLYDE

What led you to study AI?
I've been interested in computers since my dad bought a video-game console, when I was five. I grew up in a deprived area of Scotland called North Lanarkshire, so it was a big deal at the time. Later, I had serious health issues — undiagnosed pneumonia led to chronic-fatigue syndrome — which left me bed-bound from age 14 to 20. I replaced conventional education with the computer, teaching myself subjects that I was interested in. It was a negative time, but positive things came out of it. It gave me time to learn the things I wanted to learn.

How did you move forward once you were well?
When I had my strength back, I worked at a call centre fixing computers for four years. I decided that if I could do that, I was now physically able to stick to a degree. My confidence had been zapped by being ill for so long. I wanted a piece of paper that said I was capable of doing more than answering phones.

Can you describe your journey into university?
The hardest decision I ever made was to go back into education. I didn't have high-school qualifications, and so I had to prove myself. I did a national qualification in the form of an introductory course to digital media, and then completed a two-year diploma at the City of Glasgow College — a gateway to university if you don't have enough qualifications. I focused on software-programming languages. After that, I was allowed to enter the University of Strathclyde as a second-year student.

Were you intent on doing video-game design?
Early on, yes. But when I got to the university's department of computer and information science, I was really impressed by the people and their projects, which included AI. I decided to do a software-engineering degree. But to be honest, my initial goal was just to get a degree. I approached it as if I just had to survive my time in university. It was a game of attrition, and I would beat it through pure persistence.

What pushed you to do more?
My undergraduate programme offered an optional placement year in industry. When I looked at the list of places that students had gone before, CERN, Europe's particle-physics lab near Geneva, stood out. I was determined to do well — not just get through it. I studied harder to get the grades necessary.

How was your time at CERN?
It was a dream. I expected to be surrounded by Einsteins and Feinmans, but these are normal, determined people like me, which was eye-opening. We were using real-time decision-making processes, called scrum, to develop machine-protection software for the Large Hadron Collider. After seven months there, I was named scrum master — essentially, team facilitator. It made me feel extremely valued. I came back after 14 months and finished a final-year project that won 2 awards, which helped me to secure funding from the Carnegie Trust for the Universities of Scotland to conduct a PhD.

What are you working on now?
The big hurdle in my field now is building AI systems that are able to solve a variety of problems, including ones they've never seen before. The Google DeepMind team — which just announced that its AI, called AlphaGo, won against the world's top Go player — is also funding a competition to build AIs able to solve more than one problem. I'm working on that. One of the best platforms to carry out that project is in video games, because there are so many types — from puzzles to role-playing to strategy.

How have you handled the attention that your work has received?
The publicity has at times got me way out of my comfort zone, but it's a great confidence boost. I've decided to say yes to every opportunity. ■

INTERVIEW BY VIRGINIA GEWIN

This interview has been edited for length and clarity.

APPENDIX E
Lead and Feature Articles, and Topical Reviews

Article title	Author(s)	Journal	Issue
Crystallographic studies of gas sorption in metal-organic frameworks	E. J. Carrington, I. J. Vitórica-Yrezábal and L. Brammer	B	June 2014
Probing droplets on superhydrophobic surfaces by synchrotron radiation scattering techniques	A. Accardo, E. Di Fabrizio, T. Limongi, G. Marinaro and C. Riekel	JSR	July 2014
Aperiodic crystals and superspace concepts	Ted Janssen and Alyoso Janner	B	August 2014
A survey of the structural models proposed for PbZr1-xTixO3 using mode analysis	B. Kocsis, J. M. Perez-Mato, E. S. Tasci, G. de la Flor and M. I. Aroyo	J	August 2014
Deformable elastic network refinement for low-resolution macromolecular crystallography	G. F. Schröder, M. Levitt and A. T. Brunger	D	September 2014
Accurate H-atom parameters from X-ray diffraction data	L. J. Farrugia	IUCrJ	September 2014
Contemporary X-ray electron-density studies using synchrotron radiation	M. R. V. Jørgensen, V. R. Hathwar, N. Bindzus, N. Wahlberg, Y.-S. Chen, J. Overgaard and B. B. Iversen	IUCrJ	September 2014
Electronic materials with a wide band gap: recent developments	D. Klimm	IUCrJ	September 2014
Application of Patterson-function direct methods to materials characterization	J. Rius	IUCrJ	September 2014
FemtoSpeX: a versatile optical pump-soft X-ray probe facility with 100 fs X-ray pulses of variable polarization	K. Holldack, J. Bahrdt, A. Balzer, U. Bovensiepen, M. Brzhezinskaya, A. Erko, A. Eschenlohr, R. Follath, A. Firsov, W. Frentrup, L. Le Guyader, T. Kachel, P. Kuske, R. Mitzner, R. Müller, N. Pontius, T. Quast, I. Radu, J.-S. Schmidt, C. Schüßler-Langeheine, M. Sperling, C. Stamm, C. Trabant and A. Föhlisch	JSR	September 2014
Covering complete proteomes with X-ray structures: a current snapshot	M. J. Mizianty, X. Fan, J. Yan, E. Chalmers, C. Woloschuk, A. Joachimiak and L. Kurgan	D	November 2014
Crystallography of metal-organic frameworks	F. Gándara and T. D. Bennett	IUCrJ	November 2014
EXAFS and XANES analysis of oxides at the nanoscale	A. Kuzmin and J. Chaboy	IUCrJ	November 2014
X-ray techniques for innovation in industry	K. Lawniczak-Jablonska and J. Cutler	IUCrJ	November 2014
Contributions of charge-density research to medicinal chemistry	B. Dittrich and C. F. Matta	IUCrJ	November 2014
Structure and function of dioxygenases in histone demethylation and DNA/RNA demethylation	C. Dong, H. Zhang, C. Xu, C. H. Arrowsmith and J. Min	IUCrJ	November 2014
Pressure effects on lipids and bio-membrane assemblies	Nicholas Brooks	IUCrJ	November 2014
Reconciling the regulatory role of Sec1p/Munc18 proteins in SNARE complex assembly	A. Rehman, J. K. Archbold, S.-H. Hu, S. J. Norwood, B. M. Collins and J. L. Martin	IUCrJ	November 2014
Nanocrystalline materials: recent advances in crystallographic characterization techniques	Emilie Ringe	IUCrJ	November 2014
Beyond simple small-angle X-ray scattering: developments in online complementary	W. Bras, S. Koizumi and N. J. Terrill	IUCrJ	November 2014

Article title	Author(s)	Journal	Issue
techniques and sample environments			
Viruses and viral proteins	N. Verdaguer, D. Ferrero and M. R. Murthy	IUCrJ	November 2014
Investigating increasingly complex macromolecular systems with small-angle X-ray scattering	B. Vestergaard and Z. Sayers	IUCrJ	November 2014
High pressure and multiferroics materials: a happy marriage	E. Gilioli and L. Ehm	IUCrJ	November 2014
The first X-ray diffraction measurements on Mars	D. Bish, D. Blake, D. Vaniman, P. Sarrazin, T. Bristow, C. Achilles, P. Dera, S. Chipera, J. Crisp, R. T. Downs, J. Farmer, M. Gailhanou, D. Ming, J. M. Morookian, R. Morris, S. Morrison, E. Rampe, A. Treiman and A. Yen	IUCrJ	November 2014
Capability of X-ray diffraction for the study of microstructure of metastable thin films	David Rafaja	IUCrJ	November 2014
Diffuse scattering and partial disorder in complex structures	T. R. Welberry and D. J. Goossens	IUCrJ	November 2014
Crystal structure refinement with SHELXL	George Sheldrick	C	January 2015
PLATON/SQUEEZE: a Tool for the Calculation of the Disordered Solvent	Anthony L. Spek	C	January 2015
Data to knowledge: how to get meaning from your result	H. M. Berman, M. J. Gabanyi, C. R. Groom, J. E. Johnson, G. N. Murshudov, R. A. Nicholls, V. Reddy, T. Schwede, M. D. Zimmerman, J. Westbrook and W. Minor	IUCrJ	January 2015
Cascading time evolution of dissipative structures leading to unique crystalline textures	T. Hashimoto and H. Murase	IUCrJ	January 2015
A modulation wave approach to the order hidden in disorder	R. Withers	IUCrJ	January 2015
Macromolecular ab initio phasing enforcing secondary and tertiary structure	C. Millán, M. Sammito and I. Usón	IUCrJ	January 2015
Advanced grazing-incidence techniques for modern soft-matter materials analysis	A. Hexemer and P. Müller-Buschbaum	IUCrJ	January 2015
Precession electron diffraction - a topical review	P. A. Midgley and A. S. Eggeman	IUCrJ	January 2015
Perspectives on Li and transition metal fluoride phosphates as cathode materials for a new generation of Li-ion batteries	E. V. Antipov, N. R. Khasanova and S. S. Fedotov	IUCrJ	January 2015
Superspace crystallography: a key to the chemistry and properties	C. B. Pinheiro and A. M. Abakumov	IUCrJ	January 2015
High-pressure crystallography of periodic and aperiodic crystals	C. Hejny and V. S. Minkov	IUCrJ	March 2015
Serial femtosecond crystallography - the first five years	Ilme Schlichting	IUCrJ	March 2015
The potential of future light sources to explore the structure and function of matter	Edgar Weckert	IUCrJ	March 2015
Metadynamics studies of crystal nucleation	F. Giberti, M. Salvalaglio and M. Parrinello	IUCrJ	March 2015
Synchrotron radiation macromolecular	J. R. Helliwell and E. P. Mitchell	IUCrJ	March 2015

Article title	Author(s)	Journal	Issue
crystallography: our science and spin offs			
Three-dimensional electron diffraction as a complementary technique to powder X-ray diffraction for phase identification and structure solution of powders	Y. Yun, X. Zou, S. Hovmöller and W. Wan	IUCrJ	March 2015
Functional-materials analysis using in situ and operando X-ray and neutron scattering	V. K. Peterson and C. M. Papadakis	IUCrJ	March 2015
New methods in time-resolved Laue pump-probe crystallography at synchrotron sources	P. Coppens and B. Fournier	S	March 2015
Brightness of synchrotron radiation from undulators and bending magnets	G. Geloni, V. Kocharyan and E. Saldin	S	March 2015
Synergy between transmission electron microscopy and powder diffraction: application to modulated structures	Dmitry Batuk, Maria Batuk, Artem M. Abakumov and Joke Hadermann	B	April 2015
X-ray Imaging Detectors for Synchrotron and XFEL sources	Takaki Hatsui	IUCrJ	May 2015
The solvent component of macromolecular crystals	B. Rupp	D	May 2015
Pressure-induced structural phase transformation in cobalt\u200b(II) dicyanamide	Andrey Yakovenko, Karena Chapman and Gregory Halder	B	June 2015
Aperiodic crystals and beyond	Uwe Grimm	B	June 2015
MicroED data collection and processing	J. Hattne, F. E. Reyes, B. L. Nannenga, D. Shi, M. J. de la Cruz, A. G. W. Leslie and T. Gonen	A	July 2015
Sub-atomic resolution X-ray crystallography and neutron crystallography: promise, challenges and potential	M. P. Blakeley, S. S. Hasnain and S. V. Antonyuk	IUCrJ	July 2015
Modelling the experimental electron density: only the synergy of various approaches can tackle the new challenges	P. Macchi, J.-M. Gillet, F. Taulelle, J. Campo, N. Claiser and C. Lecomte	IUCrJ	July 2015
Native-SAD is Maturing	J. P. Rose, B.-C. Wang and M. S. Weiss	IUCrJ	July 2015
Application of synchrotron through-the-substrate microdiffraction to crystals in polished thin sections, a new serial crystallography method	J. Rius, O. Vallcorba, C. Frontera, I. Peral, A. Crespi and C. Miravitlles	IUCrJ	July 2015
Compound focusing mirror and x-ray waveguide optics for coherent imaging and nano-diffraction	T. Salditt	S	July 2015
Charge density and optical properties of multicomponent crystals containing APIs	Marlena Gryl	B	August 2015
Is there any point in making co-crystals	Christer Aakeröy	B	August 2015
The `quasi-mosaic' effect in crystals and its applications in modern physics	Riccardo Camattari, Vincenzo Guidi, Valerio Bellucci and Andrea Mazzolari	J	August 2015
Structural studies of metal-organic frameworks under high pressure	S. C. McKellar and S. A. Moggach	B	December 2015
Computation in Electron Microscopy	E. J. Kirkland	A	January 2016
Absolute structure determination using	R. I. Cooper, D. J. Watkin and H. D. Flack	C	January 2016

Article title	Author(s)	Journal	Issue
CRYSTALS			
Short X-ray pulses from third-generation light sources	Andrey Stepanov and Christoph Hauri	S	January 2016
Hexagonal RMnO3: a model system for 2D triangular lattice antiferromagnet	H. Sim, J. Oh, J. Jeong, M. D. Le and J.-G. Park	B	February 2016
Cryogenic coherent X-ray diffraction imaging of biological samples at SACLA: a correlative approach with cryo-electron and light microscopy	Y. Takayama and K. Yonekura	A	March 2016
Source Function applied to experimental densities reveals subtle electron delocalization effects and appraises their transferability properties in crystals	Carlo Gatti, Gabriele Saleh and Leonardo Lo Presti	B	April 2016
The Cambridge Structural Database	Colin Groom, Ian Bruno, Matthew Lightfoot and Suzanna Ward	B	April 2016
Topological features in crystal structures: a quotient graph assisted analysis of underlying nets and their embeddings	Jean-Guillaume Eon	A	May 2016
Why powder diffractionists need help from electron crystallography	Dan Xie	A	In preparation
Towards more robust nanostructure modeling from powders	Simon Billinge	A	In preparation
3D imaging at the nanoscale: towards atomic resolution	John Miao	A	In preparation
From Wulff to Winterbottom, plasmonics and catalysis	Laurie Marks	A	In preparation
Crystal engineering	Mike Zaworotko	B	In preparation
Powder diffraction - opinion	Peter Stephens	B	In preparation
Review of the current status of quasi-crystal structure modelling using the so-called canonical cell tiling approach	Marek Mihalkovi\u010d	B	In preparation
Understanding the properties of energy materials from their local structure	Hyunjeong Kim	B	In preparation
Molecular structure and luminescent properties	Paul Raithby	B	In preparation
In cell NMR	Lucia Banci	IUCrJ	In preparation
Synthetic Biology meets Structural Biology: New perspectives and opportunities	Imre Berger	IUCrJ	In preparation
Biophysical methods to screen for small molecule binders to TREK channels	Liz Carpenter	IUCrJ	In preparation
Some important enzymes of nitrogen cycle	Robert Eady	IUCrJ	In preparation
Combined approaches to monitor and control redox states in metalloprotein crystal structures	Mike Hough	IUCrJ	In preparation
Mass spectrometry approaches to study receptor tyrosine kinases	Paul Huang	IUCrJ	In preparation
Evolution of organophosphatase activity	Lynn Kamerlin	IUCrJ	In preparation

Article title	Author(s)	Journal	Issue
Computational analysis of radical intermediates generated from artemisinin	Paul O\u2019Neil	IUCrJ	In preparation
From structure to dynamics of large protein complexes	Richard Strange	IUCrJ	In preparation
Crystallography using SR and XFEL	Masaki Yamamoto	IUCrJ	In preparation
Membrane proteins	Poul Nissen, Zhi-Jie Liu and Brian Kobilka	IUCrJ	Invited
Hybrid methods	Robert McKenna, Gabriel Waksman and Jill Trewhella	IUCrJ	Invited
Seven years of XFEL in structural biology	Janet Smith,Richard Neutze and Ilme Schlichting	IUCrJ	Invited
Macromolecular complexes	Bill Weis, Osamu Nureki, Yvonne Jones and Natalie Strynadka	D	Invited
Bioinformatics and computing	Helen Berman, Christine Orengo and Paul Adams	D	Invited
Science with upgraded synchrotron radiation sources	Stefan Vogt, Pieter Glatzeland Marjolein Thunissen	D	Invited
Industrial or pharmaceutical applications	Nigel Walker, Ben Bax and Peter Colman	D	Invited
Dynamics	Keith Moffat, Marius Schmidt and James Fraser	D	Invited
Crystallography of Dynamic Structures and Properties of Porous Co-ordination Polymers/Metal-Organic Frameworks	Susumu Kitagawa	IUCrJ	In preparation
Applications of contact predictions to structural biology	Daniel Rigden	IUCrJ	In preparation
Crystallography with X-ray Lasers	John Spence	IUCrJ	In preparation
Potential for further improvements in single particle Electron Cryomicroscopy	Richard Henderson	IUCrJ	Invited

APPENDIX F
Meetings
F1. 2016

DATE	MEETING	VENUE	WEBSITE	JOURNAL
2016				
6-8 January	CCP4 Study Weekend	Nottingham, UK	http://www.ccp4.ac.uk/events/CCP4_2016/	D, F, IUCrJ
13-15 January	BioXFEL STC Annual Conference	San Juan, Puerto Rico	https://www.bioxfel.org/events/details/6	A, D, F, IUCrJ, JAC, JSR
27-29 January	European XFEL Users' Meeting	Hamburg, Germany	http://www.xfel.eu/events/users_meetings/2016_users_meeting/	A, D, IUCrJ, JAC, JSR
21-24 February	Structure based drug design conference	Carlsbad, San Diego, CA, USA	http://www.zingconferences.com/conferences/structure-based-drug-design-conference-2016/	D, F, IUCrJ
27 Feb-2 March	Biophysical society	Los Angeles, CA, USA	http://www.biophysics.org/2016meeting/Program/ScientificSessions/Symposia/tabid/6357/Default.aspx	A, B, C, D, E, F, IUCrJ, JAC, JSR
7-11 March	Fourth training course on symmetry and group theory	Tsukuba, Japan	http://www.crystallography.fr/mathcryst/Tsukuba2016.php	A, IT
9-11 March	9th International Workshop on X-ray Radiation Damage to Biological Crystalline Samples	Lund, Sweden	http://indico.maxlab.lu.se/event/67/	D, F, IUCrJ, JSR
13-17 March	American Chemical Society Spring	San Diego, CA, USA	http://www.acs.org/content/acs/en/meetings/spring-2016.html	B, C, E, IUCrJ, JAC
24-27 March	Chemical Society of Japan	Kyoto, Japan	http://www.chemistry.or.jp/en/events/annual-meeting.html	B, C, E, IUCrJ, JAC
14-17 March	24th Annual Conference German Crystallographic Society	Stuttgart, Germany	http://www.dgk-conference.de/	A, B, C, D, E, F, IUCrJ, JAC, JSR, IT
28 March - 1 April	Spring MRS	Phoenix, AZ, USA	http://www.mrs.org/spring2016/	A, B, C, D, E, F, IUCrJ, JAC, JSR
3-12 April	Macromolecular Crystallography School: From Data Processing to Structure Refinement and Beyond	Sao Carlos, Brazil	http://www.ifsc.usp.br/mx2016/index.html	D, F, IUCrJ
4-7 April	Spring BCA Meeting	Nottingham, UK	http://www.crystallography.org.uk/bca-spring-meeting-2016/	A, B, C, D, E, F, IUCrJ, JAC, JSR
10-14 April	Powder Diffraction and Rietveld Refinement School	Durham, UK	https://community.dur.ac.uk/john.evans/webpages/riet_register.htm	A, B, C, E, IUCrJ, JAC, JSR
17-29 April	Crystallography for Space Sciences	Puebla, Mexico	http://www.inaoep.mx/cospar2016/index.php	A, B, C, D, E, F, IUCrJ, JAC, JSR
19-22 April	Crystallization: Focus on Micro and Nano Crystals and High-Throughput Methods	Stanford, CA, USA	http://smb.slac.stanford.edu/news/cryst_focus_on/cryst_focus_on_2016/index.html	F
24-29 April	RapiData	Stanford, CA, USA	http://smb.slac.stanford.edu/news/rapidata/rapidata-2016/	D, F, IUCrJ, JSR
2-6 May	Spring E-MRS	Lille, France	http://www.emrs-strasbourg.com/index.php?option=com_content&task=view&id=912&Itemid=1670	A, B, C, D, E, F, IUCrJ, JAC, JSR
8-12 May	SIAM Conference on Mathematical Aspects of Materials Science	Philadelphia, PA, USA	http://www.siam.org/meetings/ms16/	A
19-21 May	6th Meeting on X-ray and Other Techniques in Investigations of the Objects of Cultural Heritage	Krakow, Poland	http://www.biurokarier.chemia.uj.edu.pl/conf/x-ray16	IUCrJ, JAC, JSR
27 May-5 June	High-Pressure Crystallography: Status Artis and Emerging Opportunities. 49th Erice Course	Erice, Italy	http://crystalerice.org/2016/	A, B, C, D, E, F, IUCrJ, JAC, JSR
29 May-3 June	5th International School on Crystallization: Drugs, Foods, Agrochemicals, Minerals, New Materials (ISC2016)	Granada, Spain	http://www.iscgranada.org/	C, JAC
30 May-	Bruker OpenLab Albania	Tirana, Albania	http://iycr2014.org/events/openlabs/bruker-openlab-albania	A, B, C, D, E, F,

DATE	MEETING	VENUE	WEBSITE	JOURNAL
3 June				IUCrJ, JAC, JSR
5-9 June	11th USPEX Workshop on Evolutionary and Interpretive Methods for Discovering the Structures and Rationalizing the Properties of Crystalline, Surface and Nanoparticle Materials	Lake Como, Italy	http://uspex-team.org/11workshop/welcome	A, B, C, IUCrJ
6-10 June	ED-XPD Workshop \u2013 Combining Electron and X-ray Powder Diffraction Techniques for Structural Characterization	Stockholm, Sweden	http://www.mmk.su.se/ed-xpd-workshop	A, B, C, D, E, F, IUCrJ, JAC, JSR
12-15 June	15th European Powder Diffraction Conference (EPDIC15)	Bari, Italy	http://www.ba.ic.cnr.it/epdic15/	A, B, C, D, E, F, IUCrJ, JAC, JSR
19-24 June	European Conference on X-ray Spectrometry (EXRS)	Gothenburg, Sweden	http://www.exrs2016.se	A, B, C, D, E, F, IUCrJ, JAC, JSR
21-25 June	MISCA - IV Meeting of the Italian and Spanish Crystallographic Associations	Tenerife, Spain	http://misca2016.org/	A, B, C, D, E, F, IUCrJ, JAC, JSR
25-29 June	2016 Kuo Symposium on 3D Cryo-EM Molecular Imaging and 9th K.H. Kuo Summer School on Electron Microscopy and Crystallography	Beijing, PRC	http://www.icsb-bj.com/en/index.php/Procon/index/id/639/aid/5396/nid/174	D, IUCrJ
26 June - 1 July	7th European Charge Density Meeting (ECDM7)\u200b: Latest Advances in Methodology and Applications of Charge Densities	Warsaw, Poland	http://ecdm7.chem.uw.edu.pl/	A, B, C, D, E, F, IUCrJ, JAC, JSR
26 June - 1 July	GRC Crystal Engineering	Stowe, VT, USA	https://www.grc.org/programs.aspx?id=14516	B, C, IUCrJ
26 June - 1 July	Advanced Methods in Macromolecular Crystallization VII	Nove Hrady, Czech Republic	http://febs.img.cas.cz/	D, F, IUCrJ
27 June-2 July	International School on Fundamental Crystallography with Applications to Electron Crystallography	Antwerp, Belgium	http://www.crystallography.fr/mathcryst/antwerp2016.php	A
30 June-2 July	DGK-AK1-Workshop: Diffraction Data Collection Using Synchrotron Radiation	Berlin-Adlershof, Germany	https://www.helmholtz-berlin.de/events/bessy-mx-workshop/index_de.html	D, F, IUCrJ, JSR
2-7 July	ICCBM-16	Prague, Czech Republic	http://www.iccbm16.org/	B, C, D, F, IUCrJ
4-8 July	3rd International School on Aperiodic Crystals	Antwerp, Belgium	https://www.uantwerpen.be/en/summer-schools/aperiodic-crystals/	B, IUCrJ
6-8 July	New horizons and emerging biomedical challenges for biophysics	Liverpool, UK	http://bbs2016.co.uk/	D, F, IUCrJ
17-21 July	IUBMB	Vancouver, Canada	http://www.iubmb2016.org/	D, F, IUCrJ
22-26 July	ACA2016	Denver, CO, USA	http://www.amercrystalassn.org/content/pages/main-annual-meetings	A, B, C, D, E, F, IUCrJ, JAC, JSR
22 July	Serial Crystallography Data Analysis Workshop	Denver, CO, USA	http://www.amercrystalassn.org/wk.03-crystfel	A, D, F, IUCrJ, JAC, JSR
22 July	Computational Approaches to the Structural Modelling of Biological Macromolecules using Small-Angle Scattering	Denver, CO, USA	http://www.amercrystalassn.org/wk.02-saxs	D, F, IUCrJ, JAC
1-5 August	65th Annual Denver X-ray Conference	Rosemont, IL, USA	http://www.dxcicdd.com/	A, B, C, D, E, F, IUCrJ, JAC, JSR, IT
1-7 August	16th International Summer School on Crystal Growth (ISSCG-16)	Shiga, Japan	http://www.iccge18.jp/isscg16/	B, D, F, IUCrJ, JAC

DATE	MEETING	VENUE	WEBSITE	JOURNAL
7-12 August	18th International Conference on Crystal Growth and Epitaxy (ICCGE-18)	Nagoya, Japan	http://www.iccge18.jp/index.html	B, D, F, IUCrJ, JAC
21-24 August	12th International Conference on Biology and Synchrotron Radiation	Stanford, CA, USA	https://conf-slac.stanford.edu/bsr-2016/content/biology-and-synchrotron-radiation-august-21-24-2016	D, IUCrJ, JSR
21-25 August	252nd ACS National Meeting & Exposition	Philadelphia, PA, USA	http://www.acs.org/content/acs/en/meetings/fall-2016.html	B, C, E, IUCrJ
22-26 August	PSI Powder Diffraction School	Villigen, Switzerland	https://indico.psi.ch/conferenceDisplay.py?confId=3577	A, B, C, D, E, F, IUCrJ, JAC, JSR
23-26 August	International School on Charge and Spin Density: from Experimental Determination to Interpretation	Nancy, France	http://crm2.univ-lorraine.fr/lab/education/congres/ecm30-congress-satellite-school/	A, B, D, F, IUCrJ
28 August - 1 Sept	ECM-30	Basel, Switzerland	http://ecm30.ecanews.org/ecm2016/home.html	A, B, C, D, E, F, IUCrJ, JAC, JSR, IT
28 August-2 Sept	16th European Microscopy Congress	Lyon, France	http://emc2016.fr/	A, B, C, D, E, F, IUCrJ, JAC, JSR
4-8 Sept	Fifth SMARTER Crystallography Conference	Bayreuth, Germany	http://www.smarter5.uni-bayreuth.de/de/index.html	A, B, C, D, E, F, IUCrJ, JAC, JSR
4-8 Sept	XTOP - 13th Biennial Conference on High-Resolution X-Ray Diffraction and Imaging	Prague, Czech Republic	http://xtop2016.sci.muni.cz/	A, JAC, JSR
7-11 Sept	Polymorphism, stability and phase transitions in crystals. AIC International Crystallography School	Rimini, Italy	http://www.cristallografia.org/aicschool2016/eng/detail.asp?idn=1854	A, B, C, E, IUCrJ, IT
12-16 Sept	International Soft Matter Conference (ISMC2016)	Grenoble, France	http://www.ismc2016.org/	IUCrJ, JAC, JSR
12-16 Sept	Rigaku OpenLab Bolivia	La Paz, Bolivia	http://iycr2014.org/events/openlabs/rigaku-openlab-bolivia	A, B, C, D, E, F, IUCrJ, JAC, JSR
18-23 Sept	13th International Conference on Quasicrystals	Kathmandu, Nepal	https://www.liverpool.ac.uk/conference-on-quasicrystals/	A, B, IUCrJ, JAC
19-22 Sept	Fall E-MRS	Warsaw, Poland	http://www.emrs-strasbourg.com/index.php?option=com_content&task=view&id=870&Itemid=1671	A, B, C, D, E, F, IUCrJ, JAC, JSR
20-23 Sept	2016 IUCr High-Pressure Workshop	Seoul, Republic of Korea	http://2016iucrhpworkshop.yonsei.ac.kr/	B, C, E, IUCrJ, JAC, JSR
25 Sept-2 Oct	3rd European Crystallography School - ECS3	Bol, Croatia	http://ecs3.ecanews.org/ECS3/HOME.html	A, B, C, D, E, F, IUCrJ, JAC, JSR
29 Sept-1 Oct	19th Heart of Europe Biocrystallography Meeting	Warberg, Germany	http://www.helmholtz-hzi.de/de/aktuelles/veranstaltungen/hec_19_meeting/overview/	D, F, IUCrJ, JSR
6-10 Oct	First Pan African Meeting on Crystallography	Dschang, Cameroon	http://pccr1-2016.univ-dschang.org/	A, B, C, D, E, F, IUCrJ, JAC, JSR
15-20 Oct	2nd International Workshop on X-ray Crystallography in Structural Biology	Lahore, Pakistan	http://www.iucr.org/calendar/events/types/workshops/2nd-international-workshop-on-x-ray-crystallography-in-structural-biology/FinalWorkshopPoster.pdf	D, F, IUCrJ, JSR
23-27 Oct	VIII Mexican Crystallography Meeting (VIII-SMCr) and II Latin-American Crystallography Meeting (II-LACA)	Merida, Yucatan, Mexico	http://www.smcr.fisica.unam.mx/	A, B, C, D, E, F, IUCrJ, JAC, JSR
30 Oct-5 Nov	International School on Fundamental Crystallography Fifth MaThCryst School in Latin America Workshop on Nanocrystallography	Havana, Cuba	http://www.crystallography.fr/mathcryst/havana2016.php	A
14-18 Nov	VIII School of the Argentinian Association of Crystallography	San Luis, Argentina	https://sites.google.com/site/reunionaacr2016/home/viii-escuela-de-la-aacr	A, B, C, D, E, F, IUCrJ, JAC, JSR
22-25 Nov	6th Moroccan School of Crystallography \u2013 EMC6	Meknes, Morocco	http://www.iucr.org/calendar/events/types/schools/6th-moroccan-school-of-crystallography-emc6	A, B, C, D, E, F, IUCrJ, JAC, JSR

DATE	MEETING	VENUE	WEBSITE	JOURNAL
27 Nov-2 Dec	Fall MRS Meeting	Boston, MA, USA	http://www.mrs.org/fall2016/	A, B, C, D, E, F, IUCrJ, JAC, JSR
4-7 Dec	AsCA Meeting	Hanoi, Vietnam	http://asca.iucr.org/meetings	A, B, C, D, E, F, IUCrJ, JAC, JSR
	IUCr-sponsored meeting			
	IUCr-sponsored attended meeting			
	Other attended meetings			

F2. Tentative list for 2017

DATE	MEETING	VENUE	WEBSITE
2017			
10-13 April	Spring BCA Meeting	Lancaster, UK	http://www.crystallography.org.uk/bca-spring-meeting-2017/
17-21 April	Spring MRS Meeting	Phoenix, AZ, USA	http://www.mrs.org/spring2017/
26-30 May	ACA2017	New Orleans, LA, USA	http://www.amercrystalassn.org/content/pages/main-annual-meetings
9-13 July	International Conference on Neutron Scattering 2017 (ICNS2017)	Daejon, Republic of Korea	http://www.icns2017.org/
21-28 August	IUCr2017	Hyderabad, India	http://www.iucr2017.org/
26 Nov-1 Dec	Fall MRS Meeting	Boston, MA, USA	http://www.mrs.org/fall2017/

APPENDIX G

Other items for discussion

Tony Linden

As of 1.1.2017, I suggest we no longer accept refinements done using SHELXL with any version of the program older than SHELXL-2014/7.

This will affect C/E mainly and to some extent B and IUCrJ and maybe occasionally JAC.

One important reason is, as advised by Ton, that SQUEEZE now works much more satisfactorily with SHELXL-2014 refinements, and old shortcomings in earlier versions are best avoided. The benefits of using the new version, just for reflection archiving, if nothing else, outweigh the downside that relatively few people nowadays should experience.

I feel that we have allowed sufficient time for people to update their refinement program and there is no excuse not to do so now. There might be some users of old (or pirated) SHELXTL who cannot (afford to) update, but the availability of the free version just means they might have to alter their work-flow slightly.

Sheldrick has declared the -97 version outdated and dead, so people should not be continuing to use it. People with old results would only have to run their original final refinement through the newer version, and except for very complex disorder cases, or use of SQUEEZE, could do that in a few minutes, so it is no big imposition on people, although some may complain that it is, but that is just reluctance to get on with it.

Randy Read

I've just received a letter to the editor complaining about a paper that claimed, in the title, to describe the first structure from a particular protein family. Should we consider disallowing such claims of novelty, as some other journals do? In particular, we could consider banning them at least from the title, abstract and synopsis.

APPENDIX H

Background information

H1. Competing journals

Includes all journals in ISI crystallography category, those with most cites to IUCr journals and those mentioned in author surveys.

Journals with an impact factor higher than 3 are shaded in grey.

Journal	Impact factor	5 year IF	Cited half life	IUCr journal
Acta Geol	0.839	0.939	>10	J
Acta Mater	4.465	4.869	7.6	J
Adv Funct Mater	11.805	12.311	4.6	J
Adv Mater	17.493	18.172	5.0	J
Am Mineral	1.964	2.356	>10	J
Angew Chem	11.261	12.060	5.8	A, B, J
Appl Phys Lett	3.302	3.569	7.4	J
Biochemistry-US	3.015	3.019	>10	D
Bioinformatics	4.981	8.136	6.9	J
Chem-Eur J	5.731	5.635	4.4	A, J
Chem Mater	8.354	9.210	7.3	J
Chin J Struct Chem	0.507	0.397	4.4	C, E
Condens Matter Phys	0.748	0.668	5.9	J
Cryst Growth Des	4.891	4.759	4.7	A, B, C, J
Cryst Res Technol	0.935	1.075	8.0	
Crystallogr Rep+	0.489	0.559	>10	
Crystallogr Rev	2.312	2.825	6.8	
CrystEngComm	4.034	4.022	3.0	A, B, C, J
Curr Opin Struc Biol	7.201	8.077	8.1	A
Dalton Trans	4.197	3.982	4.5	B, J
Earth Planet Sc Lett	4.734	5.143	9.6	J
Electrochim Acta	4.504	4.578	5.5	J
EMBO J	10.434	9.837	>10	A
FEBS J	4.001	4.068	4.9	D,F
Ferroelectrics	0.469	0.490	>10	J
Func Mater Lett	1.606	1.473	3.1	J
Geochim Cosmochim Ac	4.331	4.933	>10	J
IEEE T Comput	1.659	1.768	>10	A
IEEE T Pattern Anal	5.781	7.762	>10	A
IEEE T Vis Comput Gr	1.168	2.482	5.3	A
Inorg Chem	4.762	4.640	7.8	B, C, J
J Alloys Compd	2.999	2.716	5.0	A

Journal	Impact factor	5 year IF	Cited half life	IUCr journal
J Am Chem Soc	12.113	11.726	8.0	A
J Appl. Phys.	2.183	2.276	9.5	J
J Biol Chem	4.573	4.693	>10	D, F, J
J Chem Crystallogr	0.503	0.471	6.5	
J Cryst Growth	1.698	1.632	9.9	
J Chem Inf Model	3.738	3.916	6.4	J
J Chem Phys	2.952	3.017	>10	J
J Electroanal Chem	2.729	2.790	>10	J
J Geophys Res	3.426	3.667	>10	J
J Mol Biol	4.333	3.702	>10	A, D
J Mol Graph Model	1.722	1.948	>10	
J Mol Struct	1.602	1.585	7.4	B, C
J Phys Chem B	3.302	3.528	9.0	A, J
J Phys Chem C	4.772	5.295	4.3	S
J Phys-Condens Mat	2.346	2.507	7.7	A
J Raman Spectrosc	2.671	2.506	6.9	J
J Solid State Chem	2.133	2.344	>10	B
Langmuir	4.457	4.543	7.2	A
Liq Cryst	2.486	2.049	8.5	
Mol Cell	14.018	15.052	6.8	A
Mol Cryst Liq Cryst	0.493	0.480	>10	
Nano Lett	13.592	14.887	4.9	A
Nature	41.456	41.296	>10	A, J
Nat Commun	11.470	11.904	1.9	D
Nat Mater	36.503	44.046	6.1	J
Nat Phys	20.147	19.777	4.6	J
Nature Struct Mol Biol	13.309	12.479	6.5	A, J
Nucl Instrum Meth A	1.216	1.165	8.8	S
Phase Transit	0.954	0.953	8.4	J
Philos Mag	1.825	1.705	>10	A
Phys Chem Chem Phys	4.493	4.219	3.9	J
Phys Chem Miner	1.538	1.685	>10	J
Phys Rev B	3.736	3.583	9.6	A, B, J, S
Phys Rev E	2.288	2.269	8.5	A
Phys Rev Lett	7.512	7.360	8.8	A, J
PLOS One	3.234	3.702	2.7	D, F, J
PNAS	9.674	10.563	8.4	D
Polyhedron	2.011	1.952	7.5	C, J
Prog Cryst Growth Ch	3.579	5.088	9.7	
Science	33.611	35.263	>10	A, J
Struct Chem	1.837	1.596	4.3	

Journal	Impact factor	5 year IF	Cited half life	IUCr journal
Ultramicroscopy	2.436	2.474	7.7	J
Z Anorg Allg Chem	1.160	1.050	>10	A, B
Z Kristallogr	1.310	1.152	>10	A, J
Z Krist New Cryst St	0.136	0.113	9.7	

H2. Top-cited papers published 2013-2015

Downloads for open-access articles are denoted with an asterisk*.

Acta A

Title	Authors	Year	Vol	Pages	Times cited	Downloads
The anatomy of a comprehensive constrained, restrained refinement program for the modern computing environment-Olex2 dissected	Bourhis*, LJ; Dolomanov, OV; Gildea, RJ; Howard, JAK; Puschmann, H	2015	71	59-75	49	1215*
Structure refinement from precession electron diffraction data	Palatinus*, L; Jacob, D; Cuvillier, P; Klementova, M; Sinkler, W; Marks, LD	2013	69	171-188	23	529
Anisotropic displacement parameters for molecular crystals from periodic Hartree-Fock and density functional theory calculations	Madsen*, AO; Civalleri, B; Ferrabone, M; Pascale, F; Erba, A	2013	69	309-321	20	326
Direct phasing of nanocrystal diffraction	Elser*, V	2013	69	559-569	14	431
Semi-transparent central stop in high-resolution X-ray ptychography using Kirkpatrick-Baez focusing	Wilke*, RN; Vassholz, M; Salditt, T	2013	69	490-497	14	956*
Equivalence of superspace groups	van Smaalen*, S; Campbell, BJ; Stokes, HT	2013	69	75-90	14	2166*
SHELXT - Integrated space-group and crystal-structure determination	Sheldrick*, GM	2015	71	3-8	13	3572*
Experimental determination of core electron deformation in diamond	Bindzus, N; Straaso, T; Wahlberg, N; Becker, J; Bjerg, L; Lock, N; Dippel, AC; Iversen*, BB	2014	70	39-48	13	411
Continuous X-ray diffractive field in protein nanocrystallography	Dilanian*, RA; Streltsov, VA; Quiney, HM; Nugent, KA	2013	69	108-118	13	874
Brillouin-zone database on the Bilbao Crystallographic Server	Aroyo*, MI; Orobengoa, D; de la Flor, G; Tasci, ES; Perez-Mato, JM; Wondratschek, H	2014	70	126-137	12	642
Three-dimensional single-particle imaging using angular correlations from X-ray laser data	Liu, HG; Poon, BK; Saldin, DK; Spence, JCH; Zwart*, PH	2013	69	365-373	12	970
Periodic entanglement I: networks from hyperbolic reticulations	Evans*, ME; Robins, V; Hyde, ST	2013	69	241-261	11	447
One-step model of the face-centred-cubic to body-centred-cubic martensitic transformation	Cayron*, C	2013	69	498-509	10	359
Evolution of diffraction methods for solving crystal structures	Hendrickson*, WA	2013	69	51-59	10	3616*
Comparative study of X-ray charge-density	Schmokel, MS; Bjerg, L; Larsen, FK;	2013	69	570-582	9	342

Title	Authors	Year	Vol	Pages	Times cited	Downloads
data on CoSb3	Overgaard, J; Cenedese, S; Christensen, M; Madsen, GKH; Gatti, C; Nishibori, E; Sugimoto, K; Takata, M; Iversen*, BB					
Periodic entanglement II: weavings from hyperbolic line patterns	Evans*, ME; Robins, V; Hyde, ST	2013	69	262-275	9	268
Analysis of rapidly synthesized guest-filled porous complexes with synchrotron radiation: practical guidelines for the crystalline sponge method	Ramadhar, TR; Zheng, SL; Chen, YS; Clardy*, J	2015	71	46-58	8	1756*
On the temperature dependence of H-U-iso in the riding hydrogen model	Lubben, J; Volkmann, C; Grabowsky, S; Edwards, A; Morgenroth, W; Fabbiani, FPA; Sheldrick, GM; Dittrich*, B	2014	70	309-316	8	1620*
Statistical analysis of multipole-model-derived structural parameters and charge-density properties from high-resolution X-ray diffraction experiments	Kaminski*, R; Domagala, S; Jarzembska, KN; Hoser, AA; Sanjuan-Szklarz, WF; Gutmann, MJ; Makal, A; Malinska, M; Bak, JM; Wozniak, K	2014	70	72-91	8	590
Structural constraints on the three-dimensional geometry of simple viruses: case studies of a new predictive tool	Keef, T; Wardman, JP; Ranson, NA; Stockley, PG; Twarock*, R	2013	69	140-150	8	535
epsilon-Machine spectral reconstruction theory: a direct method for inferring planar disorder and structure from X-ray diffraction studies	Varn*, DP; Canright, GS; Crutchfield, JP	2013	69	197-206	8	167
Celebrating 100 years of X-ray crystallography	Wilkins*, SW	2013	69	1-4	8	3377*

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Title	Authors	Year	Vol	Pages	Times cited	Downloads
Use of intensity quotients and differences in absolute structure refinement	Parsons*, S; Flack, HD; Wagner, T	2013	69	249-259	194	1667*
Why don't we find more polymorphs?	Price*, SL	2013	69	313-328	43	2159*
The charge-flipping algorithm in crystallography	Palatinus*, L	2013	69	1-16	39	3930*
The generalized invariom database (GID)	Dittrich*, B; Hubschle, CB; Propper, K; Dietrich, F; Stolper, T; Holstein, JJ	2013	69	91-104	35	1159*
Polymorphs, hydrates and solvates of a co-crystal of caffeine with anthranilic acid	Madusanka, N; Eddleston, MD; Arhangelskis, M; Jones*, W	2014	70	72-80	19	1436
The importance of proper crystal-chemical and geometrical reasoning demonstrated using layered single and double hydroxides	Richardson*, IG	2013	69	150-162	18	1283*
Crystalline metal-organic frameworks (MOFs): synthesis, structure and function	Dey, C; Kundu, T; Biswal, BP; Mallick*, A; Banerjee, R	2014	70	3-10	17	8684*
A high-pressure polymorph of chlorpropamide formed on hydrostatic	Seryotkin, YV; Drebushchak*, TN; Boldyreva, EV	2013	69	77-85	17	335

Title	Authors	Year	Vol	Pages	Times cited	Downloads
compression of the alpha-form in saturated ethanol solution						
Validation of molecular crystal structures from powder diffraction data with dispersion-corrected density functional theory (DFT-D)	van de Streek*, J; Neumann, MA	2014	70	1020-1032	16	1115*
Crystallographic studies of gas sorption in metal-organic frameworks	Carrington, EJ; Vitorica-Yrezabal, IJ; Brammer*, L	2014	70	404-422	16	2201*
X-ray resonant single-crystal diffraction technique, a powerful tool to investigate the kesterite structure of the photovoltaic Cu2ZnSnS4 compound	Lafond*, A; Choubrac, L; Guillot-Deudon, C; Fertey, P; Evain, M; Jobic, S	2014	70	390-394	15	411
X-ray diffraction: a powerful tool to probe and understand the structure of nanocrystalline calcium silicate hydrates	Grangeon*, S; Claret, F; Linard, Y; Chiaberge, C	2013	69	465-473	15	2321*
A high-pressure single-crystal to single-crystal phase transition in DL-alaninium semi-oxalate monohydrate with switching-over hydrogen bonds	Zakharov*, BA; Boldyreva, EV	2013	69	271-280	14	217
Aperiodic crystals and superspace concepts	Janssen*, T; Janner, A	2014	70	617-651	13	1306*
Revised values of the bond-valence parameters for Te-IV-O, Te-VI-O and Te-IV-Cl	Mills*, SJ; Christy, AG	2013	69	145-149	13	123
Azobenzene-based difunctional halogen-bond donor: towards the engineering of photoresponsive co-crystals	Saccone, M; Terraneo*, G; Pilati, T; Cavallo, G; Priimagi, A; Metrangolo, P; Resnati, G	2014	70	149-156	12	665
Competition between hydrogen and halogen bonding in the structures of 5,10-dihydroxy-5,10-dihydroboranthrenes	Durka*, K; Lulinski, S; Jarzembska, KN; Smetek, J; Serwatowski, J; Wozniak, K	2014	70	157-171	9	555
Hirshfeld surface analysis of new phosphoramidates	Tarahhomi, A; Pourayoubi*, M; Golen, JA; Zargaran, P; Elahi, B; Rheingold, AL; Ramirez, MAL; Percino, TM	2013	69	260-270	9	255
Model structures for C-(A)-S-H(I)	Richardson*, IG	2014	70	903-923	8	1443*
Hydrogen-bond coordination in organic crystal structures: statistics, predictions and applications	Galek*, PTA; Chisholm, JA; Pidcock, E; Wood, PA	2014	70	91-105	8	880
Tuning solubility and stability of hydrochlorothiazide co-crystals	Sanphui*, P; Rajput, L	2014	70	81-90	8	980
Thermodynamic and structural relationships between the two polymorphs of 1,3-dimethylurea	Nather, C; Doring, C; Jess, I; Jones*, PG; Taouss, C	2013	69	70-76	8	268

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Title	Authors	Year	Vol	Pages	Times cited	Downloads
PLATON SQUEEZE: a tool for the calculation of the disordered solvent	Spek*, AL	2015	71	9-18	114	1897*

Title	Authors	Year	Vol	Pages	Times cited	Downloads
contribution to the calculated structure factors						
Poly[aqua[4-3,3-(diazenediyl)dibenzoato]zinc]	Liu*, LL; Zhao, F	2013	69	29-32	17	345
Crystal structure refinement with SHELXL	Sheldrick*, GM	2015	71	3-8	13	5068*
Computational materials discovery: the case of the W-B system	Cheng, XY; Chen*, XQ; Li, DZ; Li, YY	2014	70	85-103	13	858
Bridging behaviour of the 2-thiobarbiturate anion in its complexes with Li-I and Na-I	Golovnev, N; Molokeev,* M	2013	69	704-708	11	88
1,3,5-Tris(4-bromophenyl)benzene prenucleation clusters from metadynamics	Salvalaglio*, M; Giberti, F; Parrinello, M	2014	70	132-136	9	405
Evolutionary search for new high-k dielectric materials: methodology and applications to hafnia-based oxides	Zeng*, QF; Oganov, AR; Lyakhov, AO; Xie, CW; Zhang, XD; Zhang, J; Zhu, Q; Wei, BQ; Grigorenko, I; Zhang, LT; Cheng, LF	2014	70	76-84	8	726
The first uranyl complexes with valerate ions	Savchenkov*, AV; Vologzhanina, AV; Serezhkina, LB; Pushkin, DV; Serezhkin, VN	2013	69	721-726	8	72
A novel hexairon cluster with one disulfide and two Ph2PCS3- ligands	Shi*, YC; Cheng, HR; Cheng, DC	2013	69	581-583	8	76
Superconductivity of lithium-doped hydrogen under high pressure	Xie, Y; Li, Q; Oganov, AR; Wang*, H	2014	70	104-111	7	690
Crystal structures of hydrates of simple inorganic salts. I. Water-rich magnesium halide hydrates MgCl2 center dot 8H(2)O, MgCl2 center dot 12H(2)O, MgBr2 center dot 6H(2)O, MgBr2 center dot 9H(2)O, MgI2 center dot 8H(2)O and MgI2 center dot 9H(2)O	Hennings, E; Schmidt*, H; Voigt, W	2013	69	1292-1300	7	169
catena-Poly[[di-mu(2)-aqua-hexaaquabis(mu(3)-4-oxidopyridine-2,6-dicarboxylato)trimanganese(II)] trihydrate]: a new one-dimensional coordination polymer based on a trinuclear Mn-II complex of chelidamic acid	Mirzaei*, M; Eshtiagh-Hosseini, H; Karrabi, Z; Notash, B	2013	69	1140-1143	7	56
Solid-state tautomeric structure and invariom refinement of a novel and potent HIV integrase inhibitor	Bacsa*, J; Okello, M; Singh, P; Nair, V	2013	69	285-288	7	283
The self-assembling zwitterionic form of L-phenylalanine at neutral pH	Mossou, E; Teixeira, SCM; Mitchell, EP; Mason, SA; Adler-Abramovich, L; Gazit, E; Forsyth*, VT	2014	70	326-331	6	225
1,1 '-Diethyl-4,4 '-bipyridine-1,1 '-diium bis(1,1,3,3-tetracyano-2-ethoxypropenide): multiple C-H center dot center dot center dot N hydrogen bonds form a complex sheet structure	Setifi, Z; Lehchili, F; Setifi, F*; Beghidja, A; Ng, SW; Glidewell, C	2014	70	338-341	6	49
Poly[[chlorido(1,10-phenanthroline-kappa N-2,N ')copper(II)]-mu(3)-1,1,3,3-tetracyano-2-ethoxypropenido-kappa N-3:N ':N "]: coordination polymer sheets linked into bilayers by hydrogen bonds	Setifi, Z; Setifi*, F; El Ammari, L; El-Ghozzi, M; Santos, JSD; Merazig, H; Glidewell, C	2014	70	19-22	6	98
Solid-state photochemistry of molecular photo-switchable species: the role of photocrystallographic techniques	Hatcher, LE; Raithby*, PR	2013	69	1448-1456	6	307
Multiple anion... interactions in tris(1,10-phenanthroline-2N,N)iron(II) bis[1,1,3,3-tetracyano-2-(2-hydroxyethyl)propenide]	*Setifi, Z; Domasevitch, KV; Setifi, F; Mach, P; Ng, SW; Petricek, V; Dusek, M	2013	69	1351-1356	6	131

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monohydrate						
Semi-maleate salts of L- and DL-serinium: the first example of chiral and racemic serinium salts with the same composition and stoichiometry	Arkhipov*, SG; Zakharov, BA; Boldyreva, EV	2013	69	517-521	6	116
A clothes-peg-shaped binuclear trans-bis(2-aminotroponato)palladium(II) complex bearing pentamethylene spacers	Komiya, N; Kageyama, T; Naito, M; Naota*, T	2013	69	503-505	6	103

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Title	Authors	Year	Vol	Pages	Times cited	Downloads
How good are my data and what is the resolution?	Evans*, PR; Murshudov, GN	2013	69	1204-1214	276	6010*
Decision making in xia2	Winter*, G; Lobley, CMC; Prince, SM	2013	69	126001273	75	1495*
Better models by discarding data?	Diederichs*, K; Karplus, PA	2013	69	1215-1222	65	5019*
Crystallographic data processing for free-electron laser sources	White*, TA; Barty, A; Stellato, F; Holton, JM; Kirian, RA; Zatsepin, NA; Chapman, HN	2013	69	1231-1240	44	1859*
Autoindexing diffraction images with iMosflm	Powell, HR; Johnson, O; Leslie*, AGW	2013	69	1195-1203	34	2348*
Anomalous signal from S atoms in protein crystallographic data from an X-ray free-electron laser	Barends*, TRM; Foucar, L; Shoeman, RL; Bari, S; Epp, SW; Hartmann, R; Hauser, G; Huth, M; Kieser, C; Lomb, L; Motomura, K; Nagaya, K; Schmidt, C; Strecker, R; Anielski, D; Boll, R; Erk, B; Fukuzawa, H; Hartmann, E; Hatsui, T; Holl, P; Inubushi, Y; Ishikawa, T; Kassemeyer, S; Kaiser, C; Koeck, F; Kunishima, N; Kurka, M; Rolles, D; Rudek, B; Rudenko, A; Sato, T; Schroeter, CD; Soltau, H; Strueder, L; Tanaka, T; Togashi, T; Tono, K; Ullrich, J; Yase, S; Wada, S; Yao, M; Yabashi, M; Ueda, K; Schlichting, I	2013	69	838-842	34	950
Robust structural analysis of native biological macromolecules from multi-crystal anomalous diffraction data	Liu, Q; Liu, QL; Hendrickson,* WA	2013	69	1314-1332	33	2444*
New Python-based methods for data processing	Sauter*, NK; Hattne, J; Grosse-Kunstleve, RW; Echols, N	2013	69	1274-1282	33	2721*
Techniques, tools and best practices for ligand electron-density analysis and results from their application to deposited crystal structures	Pozharski*, E; Weichenberger, CX; Rupp, B	2013	69	1500-167	32	4207
X-ray structure of the first 'extremo-alpha-carbonic anhydrase', a dimeric enzyme from the thermophilic bacterium Sulfurihydrogenibium yellowstonense YO3AOP1	Di Fiore, A; Capasso, C; De Luca, V; Monti, SM; Carginale, V; Supuran, CT; Scozzafava, A; Pedone, C; Rossi, M; De Simone*, G	2013	69	1150-1159	30	317
MAIN software for density averaging, model building, structure refinement and validation	Turk*, D	2013	69	1342-1357	25	2049*

Title	Authors	Year	Vol	Pages	Times cited	Downloads
Tools for macromolecular model building and refinement into electron cryo-microscopy reconstructions	Brown, A; Long, F; Nicholls, RA; Toots, J; Emsley, P; Murshudov*, G	2015	71	136-153	24	2210*
Clustering procedures for the optimal selection of data sets from multiple crystals in macromolecular crystallography	Foadi, J; Aller, P; Alguel, Y; Cameron, A; Axford, D; Owen, RL; Armour, W; Waterman, DG; Iwata, S; Evans*, G	2013	69	1617-1632	22	2105*
Processing of X-ray snapshots from crystals in random orientations	Kabsch*, W	2014	70	2204-2216	21	1394*
Structure of BamA, an essential factor in outer membrane protein biogenesis	Albrecht, R; Schutz, M; Oberhettinger, P; Faulstich, M; Bermejo, I; Rudel, T; Diederichs, K; Zeth*, K	2014	70	1779-1789	21	665
Cross-protomer interaction with the photoactive site in oligomeric proteorhodopsin complexes	Ran, TT; Ozorowski, G; Gao, YY; Sineshchekov, OA; Wang*, WW; Spudich, JL; Luecke, H	2013	69	1965-1980	21	854
On the usefulness of ion-mobility mass spectrometry and SAXS data in scoring docking decoys	Karaca, E; Bonvin*, AMJJ	2013	69	683-694	21	390
The crystal structure analysis of the relative binding of cisplatin and carboplatin in a mixture with histidine in a protein studied at 100 and 300 K with repeated X-ray irradiation	Helliwell*, JR; Tanley, SWM	2013	69	121-125	21	395
Room-temperature serial crystallography at synchrotron X-ray sources using slowly flowing free-standing high-viscosity microstreams	Botha, S; Nass, K; Barends, TRM; Kabsch, W; Latz, B; Dworkowski, F; Foucar, L; Panepucci, E; Wang, MT; Shoeman, RL; Schlichting*, I; Doak, RB	2015	71	387-397	20	820
Phaser.MRage: automated molecular replacement	Bunkoczi, G; Echols, N; McCoy, AJ; Oeffner, RD; Adams, PD; Read*, RJ	2013	69	2276-2286	20	2350*

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Title	Authors	Year	Vol	Pages	Times cited	Downloads
Introduction to protein crystallization	McPherson*, A; Gavira, JA	2014	70	2-20	26	3601
Visualizing ligand molecules in twilight electron density	Weichenberger*, CX; Pozharski, E; Rupp, B	2013	69	195-200	16	1172
The AEROPATH project targeting Pseudomonas aeruginosa: crystallographic studies for assessment of potential targets in early-stage drug discovery	Moynie, L; Schnell, R; McMahon, SA; Sandalova, T; Boulkerou, WA; Schmidberger, JW; Alphey, M; Cukier, C; Duthie, F; Kopec, J; Liu, HT; Jacewicz, A; Hunter, WN; Naismith*, JH; Schneider, G	2013	69	25-34	16	1543*
Serial femtosecond X-ray diffraction of 30S ribosomal subunit microcrystals in liquid suspension at ambient temperature using an X-ray free-electron laser	Demirci*, H; Sierra, RG; Laksmono, H; Shoeman, RL; Botha, S; Barends, TRM; Nass, K; Schlichting, I; Doak, RB; Gati, C; Williams, GJ; Boutet, S; Messerschmidt, M; Jogl, G; Dahlberg, AE; Gregory, ST; Bogan, MJ	2013	69	1066-1069	14	2067*
Crystallization and preliminary X-ray crystallographic analysis of latent isoform PPO4 mushroom (Agaricus bisporus)	Mauracher, SG; Molitor, C; Al-Oweini, R; Kortz, U; Rompel*, A	2014	70	263-266	13	1371*

Title	Authors	Year	Vol	Pages	Times cited	Downloads
tyrosinase						
Crystallization and preliminary crystallographic analysis of Axe2, an acetylxylan esterase from Geobacillus stearothermophilus	Lansky, S; Alalouf, O; Solomon, V; Alhassid, A; Govada, L; Chayan, NE; Belrhali, H; Shoham*, Y; Shoham, G	2013	69	430-434	13	210
A comprehensive review of the lipid cubic phase or in meso method for crystallizing membrane and soluble proteins and complexes	Caffrey*, M	2015	71	3-18	12	3830*
Carboplatin binding to histidine	Tanley, SWM; Diederichs, K; Kroon-Batenburg, LMJ; Levy, C; Schreurs, AMM; Helliwell*, JR	2014	70	1135-1142	9	549*
Applications of the second virial coefficient: protein crystallization and solubility	Wilson, WW; DeLucas*, LJ	2014	70	543-554	9	1725*
Approaches to automated protein crystal harvesting	Deller*, MC; Rupp, B	2014	70	133-155	9	848
Some practical guidelines for UV imaging in the protein crystallization laboratory	Desbois, S; Seabrook, SA; Newman*, J	2013	69	201-208	9	2060*
Optimization of protein buffer cocktails using Thermofluor	Reinhard*, L; Mayerhofer, H; Geerlof, A; Mueller-Dieckmann, J; Weiss, MS	2013	69	209-214	9	1018
Mechanisms, kinetics, impurities and defects: consequences in macromolecular crystallization	McPherson*, A; Kuznetsov, YG	2014	70	384-403	8	421
Coiled-coil dimerization of the LOV2 domain of the blue-light photoreceptor phototropin 1 from Arabidopsis thaliana	Halavaty*, AS; Moffat, K	2013	69	1316-1321	8	361
Crystallization and preliminary crystallographic analysis of Abp, a GH27 beta-L-arabinopyranosidase from Geobacillus stearothermophilus	Lansky, S; Salama, R; Solomon, VH; Belrhali, H; Shoham*, Y; Shoham, G	2013	69	695-699	8	120
New crystal forms of NTPDase1 from the bacterium Legionella pneumophila	Zebisch, M; Schafer, P; Lauble, P; Strater*, N	2013	69	257-262	8	227
Crystallization screening: the influence of history on current practice	Luft*, JR; Newman, J; Snell, EH	2014	70	835-853	7	3684*
Crystallization and structure determination of a symmetrical 'football' complex of the mammalian mitochondrial Hsp60-Hsp10 chaperonins	Nisemblat, S; Parnas, A; Yaniv, O; Azem*, A; Frolow, F	2014	70	116-119	7	1169
Structure of PatF from Prochloron didemni	Bent, AF; Koehnke, J; Houssen, WE; Smith, MCM; Jaspars, M; Naismith*, JH	2013	69	618-623	7	763*
Structure of an A-form RNA duplex obtained by degradation of 6S RNA in a crystallization droplet	Kondo*, J; Dock-Bregeon, AC; Willkomm, DK; Hartmann, RK; Westhof, E	2013	69	634-639	7	199

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Title	Authors	Year	Vol	Pages	Times cited	Downloads
PDFgetX3: a rapid and highly automatable program for processing powder diffraction data into total scattering pair distribution functions	Juhas, P; Davis, T; Farrow, CL; Billinge*, SJL	2013	46	560-566	87	928
A low-background-intensity focusing small-	Kirby*, NM; Mudie, ST; Hawley,	2013	46	1670-	77	333

Title	Authors	Year	Vol	Pages	Times cited	Downloads
angle X-ray scattering undulator beamline	AM; Cookson, DJ; Mertens, HDT; Cowieson, N; Samardzic-Boban, V			1680		
Comparison of silver and molybdenum microfocus X-ray sources for single-crystal structure determination	Krause, L; Herbst-Irmer, R; Sheldrick, GM; Stalke*, D	2015	48	3-10	61	1347*
WinCSD: software package for crystallographic calculations (Version 4)	Akselrud, L; Grin*, Y	2014	47	803-805	56	557
GSAS-II: the genesis of a modern open-source all purpose crystallography software package	Toby, BH; Von Dreele*, RB	2013	46	544-549	55	1380
EXPO2013: a kit of tools for phasing crystal structures from powder data	Altomare, A; Cuocci, C; Giacovazzo*, C; Moliterni, A; Rizzi, R; Corriero, N; Falcicchio, A	2013	46	1231-1235	54	461
Three-dimensional rotation electron diffraction: software RED for automated data collection and data processing	Wan*, W; Sun, JL; Su, J; Hovmoller, S; Zou, XD	2013	46	1863-1873	45	1374*
Cheetah: software for high-throughput reduction and analysis of serial femtosecond X-ray diffraction data	Barty*, A; Kirian, RA; Maia, FRNC; Hantke, M; Yoon, CH; White, TA; Chapman, H	2014	47	1118-1131	35	1580*
Implementation and performance of SIBYLS: a dual endstation small-angle X-ray scattering and macromolecular crystallography beamline at the Advanced Light Source	Classen*, S; Hura, GL; Holton, JM; Rambo, RP; Rodic, I; McGuire, PJ; Dyer, K; Hammel, M; Meigs, G; Frankel, KA; Tainer, JA	2013	46	1-13	35	1657*
Tunnel-dependent supercapacitance of MnO2: effects of crystal structure	Sun, CT; Zhang, YJ; Song, SY; Xue*, DF	2013	46	1128-1135	31	360
Advances in X-ray diffraction contrast tomography: flexibility in the setup geometry and application to multiphase materials	Reischig*, P; King, A; Nervo, L; Vigano, N; Guilhem, Y; Palenstijn, WJ; Batenburg, KJ; Preuss, M; Ludwig, W	2013	46	297-311	29	919
Adaptive reconstruction method for three-dimensional orientation imaging	Li*, SF; Suter, RM	2013	46	512-524	28	298
Oversampling smoothness: an effective algorithm for phase retrieval of noisy diffraction intensities	Rodriguez, JA; Xu, R; Chen, CC; Zou, YF; Miao*, JW	2013	46	312-318	28	727
Polymer crystallization studies under processing-relevant conditions at the SAXS/WAXS DUBBLE beamline at the ESRF	Portale*, G; Cavallo, D; Alfonso, GC; Hermida-Merino, D; van Drongelen, M; Balzano, L; Peters, GWM; Goossens, JGP; Bras, W	2013	46	1681-1689	27	446
RADDOSE-3D: time- and space-resolved modelling of dose in macromolecular crystallography	Zeldin, OB; Gerstel, M; Garman*, EF	2013	46	1225-1230	26	582
Crystal structure determination and refinement via SIR2014	Burla, MC; Caliandro, R; Carrozzini, B; Cascarano, GL; Cuocci, C; Giacovazzo*, C; Mallamo, M; Mazzone, A; Polidori, G	2015	48	306-309	25	499
Refinement of macromolecular structures against neutron data with SHELXL2013	Gruene*, T; Hahn, HW; Luebben, AV; Meilleur, F; Sheldrick, GM	2014	47	462-466	24	1636*
X-ray analysis of residual stress gradients in TiN coatings by a Laplace space approach and cross-sectional nanodiffraction: a critical comparison	Stefenelli, M; Todt, J; Riedl, A; Ecker, W; Muller, T; Daniel, R; Burghammer, M; Keckes*, J	2013	46	1378-1385	22	1080*
GrainSpotter: a fast and robust polycrystalline indexing algorithm	Schmidt*, S	2014	47	276-284	20	818
Short-range and long-range order of	Manceau*, A; Marcus, MA;	2013	46	193-209	19	497

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phyllomanganate nanoparticles determined using high-energy X-ray scattering	Grangeon, S; Lanson, M; Lanson, B; Gaillot, AC; Skanthakumar, S; Soderholm, L					

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The Materials Science beamline upgrade at the Swiss Light Source	Willmott*, PR; Meister, D; Leake, SJ; Lange, M; Bergamaschi, A; Boge, M; Calvi, M; Cancellieri, C; Casati, N; Cervellino, A; Chen, Q; David, C; Flechsig, U; Gozzo, F; Henrich, B; Jaggi-Spielmann, S; Jakob, B; Kalichava, I; Karvinen, P; Krempasky, J; Ludeke, A; Luscher, R; Maag, S; Quitmann, C; Reinle-Schmitt, ML; Schmidt, T; Schmitt, B; Streun, A; Vartiainen, I; Vitins, M; Wang, X; Wullschleger, R	2013	20	667-682	42	1138*
Upgraded ESRF BM29 beamline for SAXS on macromolecules in solution	Pernot*, P; Round, A; Barrett, R; Antolinos, AD; Gobbo, A; Gordon, E; Huet, J; Kieffer, J; Lentini, M; Mattenet, M; Morawe, C; Mueller-Dieckmann, C; Ohlsson, S; Schmid, W; Surr, J; Theveneau, P; Zerrad, L; McSweeney, S	2013	20	660-664	36	1093*
Diffraction-limited storage rings - a window to the science of tomorrow	Eriksson*, M; van der Veen, JF; Quitmann, C	2014	21	837-842	25	1268*
The Bionanoprobe: hard X-ray fluorescence nanoprobe with cryogenic capabilities	Chen*, S; Deng, J; Yuan, Y; Flachenecker, C; Mak, R; Hornberger, B; Jin, Q; Shu, D; Lai, B; Maser, J; Roehrig, C; Paunesku, T; Gleber, SC; Vine, DJ; Finney, L; VonOsinski, J; Bolbat, M; Spink, I; Chen, Z; Steele, J; Trapp, D; Irwin, J; Feser, M; Snyder, E; Brister, K; Jacobsen, C; Woloschak, G; Vogt, S	2014	21	66-75	24	2379*
A microfocus X-ray fluorescence beamline at Indus-2 synchrotron radiation facility	Tiwari*, MK; Gupta, P; Sinha, AK; Kane, SR; Singh, AK; Garg, SR; Garg, CK; Lodha, GS; Deb, SK	2013	20	386-389	21	326
Global radiation damage: temperature dependence, time dependence and how to outrun it	Warkentin, M; Hopkins, JB; Badeau, R; Mulichak, AM; Keefe, LJ; Thorne*, RE	2013	20	7-13	18	674
Soft-X-ray ARPES facility at the ADRESS beamline of the SLS: concepts, technical realisation and scientific applications	Strocov*, VN; Wang, X; Shi, M; Kobayashi, M; Krempasky, J; Hess, C; Schmitt, T; Patthey, L	2014	21	32-44	17	580
Imaging interfacial micro- and nano-bubbles by scanning transmission soft X-ray microscopy	Zhang*, LJ; Zhao, BY; Xue, L; Guo, Z; Dong, YM; Fang, HP; Tai, RZ; Hu, J	2013	20	413-418	17	246
Developments in optics and performance at BL13-XALOC, the macromolecular crystallography beamline at the Alba Synchrotron	Juanhuix*, J; Gil-Ortiz, F; Cuni, G; Colldelram, C; Nicolas, J; Lidon, J; Boter, E; Ruget, C; Ferrer, S; Benach, J	2014	21	679-689	16	812*
Acoustic methods for high-throughput protein crystal mounting at next-generation macromolecular crystallographic beamlines	Roessler, CG; Kuczewski, A; Stearns, R; Ellson, R; Olechno, J; Orville, AM; Allaire, M; Soares*, AS; Heroux, A	2013	20	805-808	16	417

Title	Authors	Year	Vol	Pages	Times cited	Downloads
Resonant scattering and diffraction beamline P09 at PETRA III	Strempfer*, J; Francoual, S; Reuther, D; Shukla, DK; Skaugen, A; Schulte-Schrepping, H; Kracht, T; Franz, H	2013	20	541-549	16	361
The macromolecular crystallography beamline I911-3 at the MAX IV laboratory	Ursby*, T; Unge, J; Appio, R; Logan, DT; Fredslund, F; Svensson, C; Larsson, K; Labrador, A; Thunnissen, MMGM	2013	20	648-653	16	944*
TomoPy: a framework for the analysis of synchrotron tomographic data	Gursoy*, D; De Carlo, F; Xiao, XH; Jacobsen, C	2014	21	1188-1193	15	924*
X-ray detectors at the Linac Coherent Light Source	Blaj, G; Caragiulo, P; Carini*, G; Carron, S; Dragone, A; Freytag, D; Haller, G; Hart, P; Hasi, J; Herbst, R; Herrmann, S; Kenney, C; Markovic, B; Nishimura, K; Osier, S; Pines, J; Reese, B; Segal, J; Tomada, A; Weaver, M	2015	22	577-583	13	750*
Characterization of an in-vacuum PILATUS 1M detector	Wernecke*, J; Gollwitzer, C; Muller, P; Krumrey, M	2014	21	529-536	13	221
High-resolution thermal imaging with a combination of nano-focus X-ray diffraction and ultra-fast chip calorimetry	Rosenthal, M; Doblas, D; Hernandez, JJ; Odarchenko, YI; Burghammer, M; Di Cola, E; Spitzer, D; Antipov, AE; Aldoshin, LS; Ivanov,* DA	2014	21	223-228	13	433
Experiences with archived raw diffraction images data: capturing cisplatin after chemical conversion of carboplatin in high salt conditions for a protein crystal	Tanley, SWM; Diederichs, K; Kroon-Batenburg, LMJ; Schreurs, AMM; Helliwell*, JR	2013	20	880-883	13	503*
A comparative study of X-ray tomographic microscopy on shales at different synchrotron facilities: ALS, APS and SLS	Kanitpanyacharoen, W; Parkinson, DY; De Carlo, F; Marone, F; Stampanoni, M; Mokso, R; MacDowell, A; Wenk*, HR	2013	20	172-180	13	1041*
The X-ray Pump-Probe instrument at the Linac Coherent Light Source	Chollet, M; Alonso-Mori, R; Cammarata, M; Damiani, D; Defever, J; Delor, JT; Feng, YP; Glownia, JM; Langton, JB; Nelson, S; Ramsey, K; Robert, A; Sikorski, M; Song, S; Stefanescu, D; Srinivasan, V; Zhu*, DL; Lemke, HT; Fritz, DM	2015	22	503-507	12	946*
The Coherent X-ray Imaging instrument at the Linac Coherent Light Source	Liang, MN; Williams, GJ; Messerschmidt, M; Seibert, MM; Montanez, PA; Hayes, M; Milathianaki, D; Aquila, A; Hunter, MS; Koglin, JE; Schafer, DW; Guillet, S; Busse, A; Bergan, R; Olson, W; Fox, K; Stewart, N; Curtis, R; Miahnahri, AA; Boutet*, S	2015	22	514-519	12	890*
Thermal deformation of cryogenically cooled silicon crystals under intense X-ray beams: measurement and finite-element predictions of the surface shape	Zhang*, L; del Rio, MS; Monaco, G; Detlefs, C; Roth, T; Chumakov, AI; Glatzel, P	2013	20	567-580	12	3397*
Efficient focusing of 8 keV X-rays with multilayer Fresnel zone plates fabricated by atomic layer deposition and focused ion beam milling	Mayer, M; Keskinbora, K; Grevent*, C; Szeghalmi, A; Knez, M; Weigand, M; Snigirev, A; Snigireva, I; Schutz, G	2013	20	433-440	12	972*
Angular spectrum simulation of X-ray focusing by Fresnel zone plates	Vila-Comamala*, J; Wojcik, M; Diaz, A; Guizar-Sicairos, M; Kewish, CM; Wang, S; David, C	2013	20	397-404	12	1188*

Title	Authors	Year	Vol	Pages	Times cited	Downloads
Development of fast, simultaneous and multi-technique scanning hard X-ray microscopy at Synchrotron Soleil	Medjoubi*, K; Leclercq, N; Langlois, F; Buteau, A; Le, S; Poirier, S; Mercere, P; Sforna, MC; Kewish, CM; Somogyi, A	2013	20	293-299	12	265
To scavenge or not to scavenge, that is STILL the question	Allan, EG; Kander, MC; Carmichael, I; Garman*, EF	2013	20	23-36	12	1043*
Optimizing the spatial distribution of dose in X-ray macromolecular crystallography	Zeldin, OB; Gerstel, M; Garman*, EF	2013	20	49-57	12	502

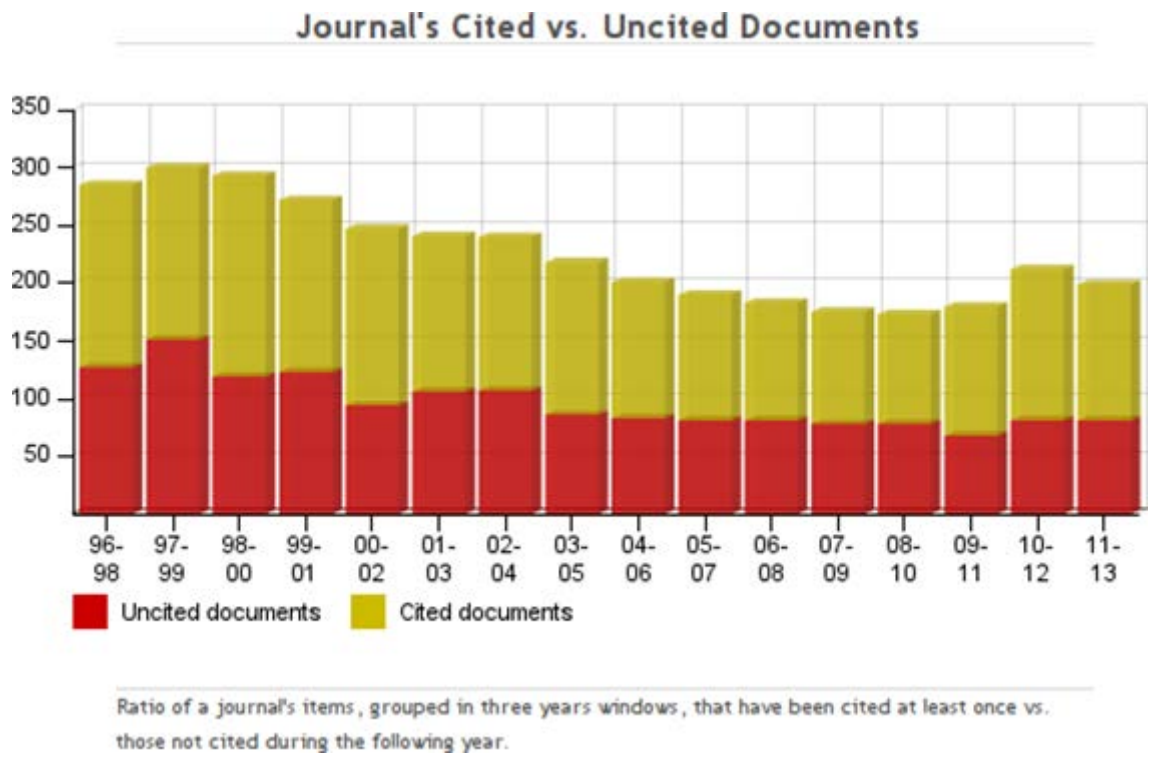
IUCrJ

Title	Authors	Year	Vol	Pages	Times cited	Downloads
Serial crystallography on in vivo grown microcrystals using synchrotron radiation	Gati, C; Bourenkov, G; Klinge, M; Rehders, D; Stellato, F; Oberthur, D; Yefanov, O; Sommer, BP; Mogk, S; Duszenko, M; Betzel, C; Schneider*, TR; Chapman, HN; Redecke, L	2014	1	87-94	42	6062*
Room-temperature macromolecular serial crystallography using synchrotron radiation	Stellato, F; Oberthur, D; Liang, MN; Bean, R; Gati, C; Yefanov, O; Barty, A; Burkhardt, A; Fischer, P; Galli, L; Kirian, RA; Meyer, J; Panneerselvam, S; Yoon, CH; Chervinskii, F; Speller, E; White, TA; Betzel, C; Meents, A; Chapman*, HN	2014	1	204-212	36	4613*
The PDB_REDO server for macromolecular structure model optimization	Joosten*, RP; Long, F; Murshudov, GN; Perrakis, A	2014	1	213-220	34	2163*
Halogen bonds in some dihalogenated phenols: applications to crystal engineering	Mukherjee, A; Desiraju*, GR	2014	1	49-60	30	2784*
Type II halogen...halogen contacts are halogen bonds	Metrangolo*, P; Resnati, G	2014	1	5-7	23	2404*
Room-temperature serial crystallography using a kinetically optimized microfluidic device for protein crystallization and on-chip X-ray diffraction	Heymann, M; Opthalage, A; Wierman, JL; Akella, S; Szebenyi, DME; Gruner, SM; Fraden*, S	2014	1	349-360	20	1855*
Advanced ensemble modelling of flexible macromolecules using X-ray solution scattering	Tria*, G; Mertens, HDT; Kachala, M; Svergun, DI	2015	2	207-217	18	2413*
Femtosecond X-ray diffraction from two-dimensional protein crystals	Frank*, M; Carlson, DB; Hunter, MS; Williams, GJ; Messerschmidt, M; Zatsepin, NA; Barty, A; Benner, WH; Chu, KQ; Graf, AT; Hau-Riege, SP; Kirian, RA; Padeste, C; Pardini, T; Pedrini, B; Segelke, B; Seibert, MM; Spence, JCH; Tsai, CJ; Lane, SM; Li, XD; Schertler, G; Boutet, S; Coleman, M; Evans, JE	2014	1	95-100	18	5294*
On atom-atom 'short contact' bonding interactions in crystals	Lecomte*, C; Espinosa, E; Matta, CF	2015	2	161-163	17	1851*
Serial femtosecond crystallography: the first five years	Schlichting*, I	2015	2	246-255	17	5249*
Aniline-phenol recognition: from solution through supramolecular synthons to cocrystals	Mukherjee, A; Dixit, K; Sarma, SP; Desiraju*, GR	2014	1	228-239	16	1590*
Avoidable errors in deposited macromolecular structures: an impediment to efficient data mining	Dauter*, Z; Wlodawer, A; Minor, W; Jaskolski, M; Rupp, B	2014	1	179-193	16	4495*
Crystal landscape in the orcinol:4,4 '-bipyridine system: synthon modularity, polymorphism and transferability of multipole charge density parameters	Dubey, R; Pavan, MS; Row*, TNG; Desiraju, GR	2014	1	8-18	16	2832*
Lipidic cubic phase serial millisecond crystallography using synchrotron radiation	Nogly, P; James, D; Wang, DJ; White, TA; Zatsepin, N; Shilova, A; Nelson, G; Liu, HG; Johansson, L; Heymann, M; Jaeger, K; Metz, M; Wickstrand, C; Wu, WT; Bath, P; Berntsen, P; Oberthuer, D; Panneels, V; Cherezov, V;	2015	2	168-176	14	3873*

Title	Authors	Year	Vol	Pages	Times cited	Downloads
	Chapman, H; Schertler, G; Neutze, R; Spence, J; Moraes, I; Burghammer*, M; Standfuss, J; Weierstall, U					
Intermolecular atom-atom bonds in crystals?	Dunitz*, JD	2015	2	157-158	12	2936*
Intermolecular atom-atom bonds in crystals - a chemical perspective	Thakur, TS; Dubey, R; Desiraju*, GR	2015	2	159-160	12	2137*
Hirshfeld atom refinement	Capelli, SC; Burgi, HB; Dittrich, B; Grabowsky, S; Jayatilaka*, D	2014	1	361-379	12	1756*
Location of Cu2+ in CHA zeolite investigated by X-ray diffraction using the Rietveld/maximum entropy method	Andersen, CW; Bremholm, M; Vennestrom, PNR; Blichfeld, AB; Lundegaard*, LF; Iversen, BB	2014	1	382-386	11	2192*
Diverse modes of binding in structures of Leishmania major N-myristoyltransferase with selective inhibitors	Brannigan, JA; Roberts, SM; Bell, AS; Hutton, JA; Hodgkinson, MR; Tate, EW; Leatherbarrow, RJ; Smith, DF; Wilkinson*, AJ	2014	1	250-260	11	1111*
Sub-atomic resolution X-ray crystallography and neutron crystallography: promise, challenges and potential	Blakeley, MP; Hasnain, SS; Antonyuk*, SV	2015	2	464-474	10	2801*
Advanced grazing-incidence techniques for modern soft-matter materials analysis	Hexemer, A; Muller-Buschbaum*, P	2015	2	106-125	10	2475*
The enrichment ratio of atomic contacts in crystals, an indicator derived from the Hirshfeld surface analysis	Jelsch*, C; Ejsmont, K; Huder, L	2014	1	119-128	10	1811*

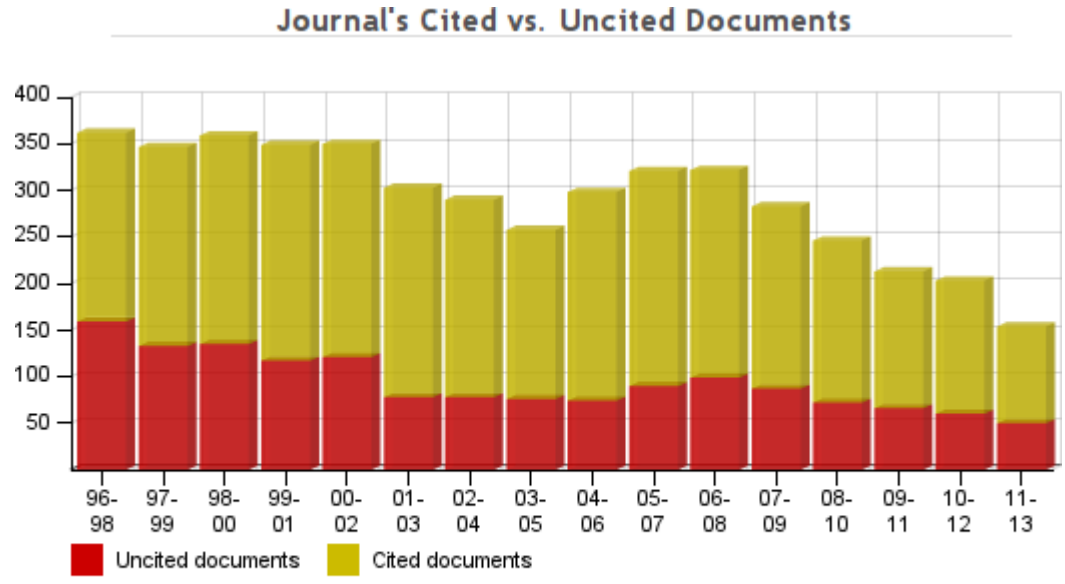
H3. Cited *versus* uncited articles

Acta A



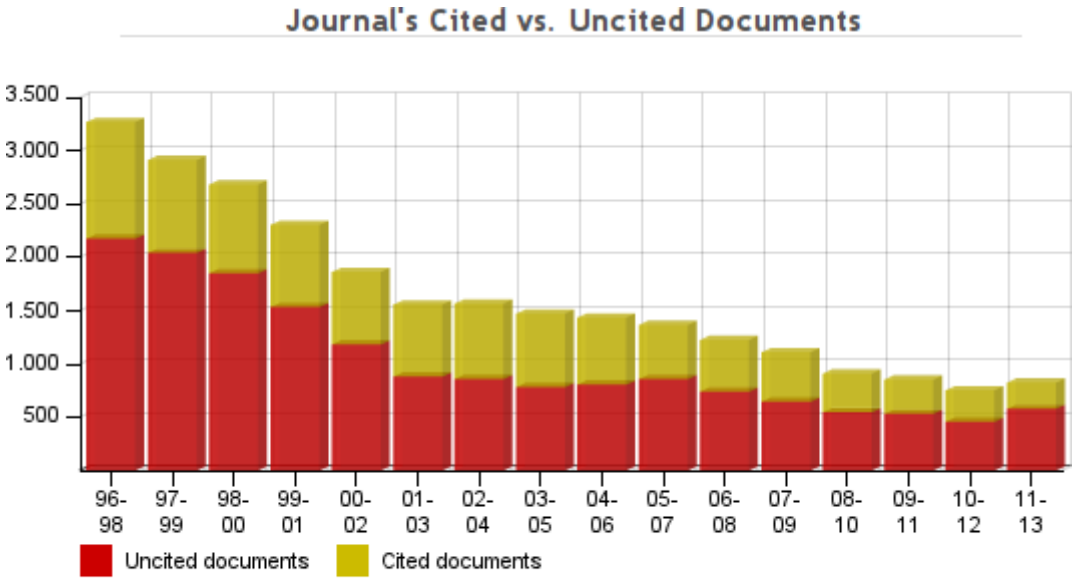
Ratio of a journal's items, grouped in three years windows, that have been cited at least once vs. those not cited during the following year.

Acta B



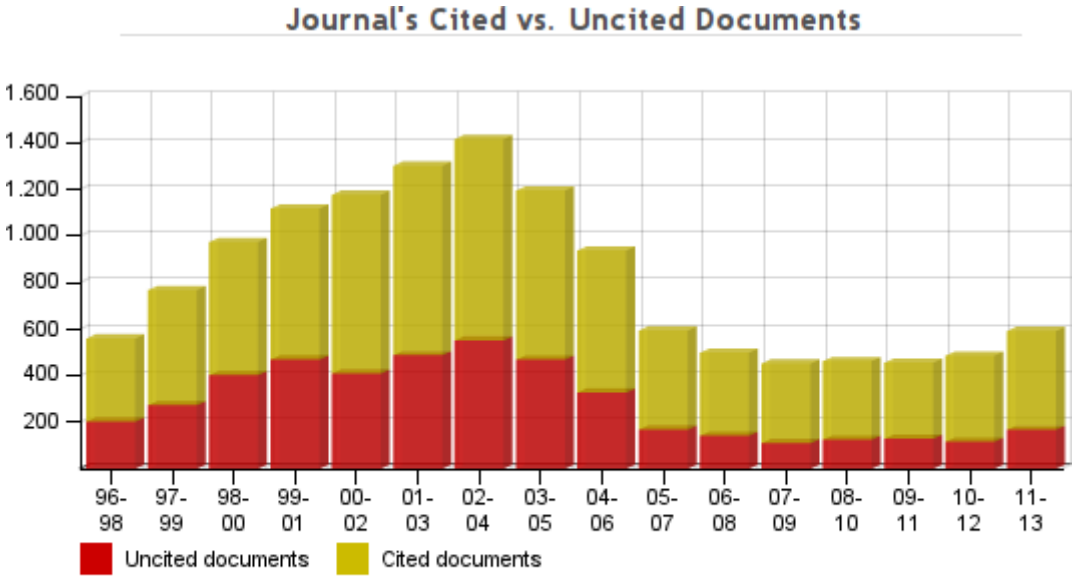
Ratio of a journal's items, grouped in three years windows, that have been cited at least once vs. those not cited during the following year.

Acta C



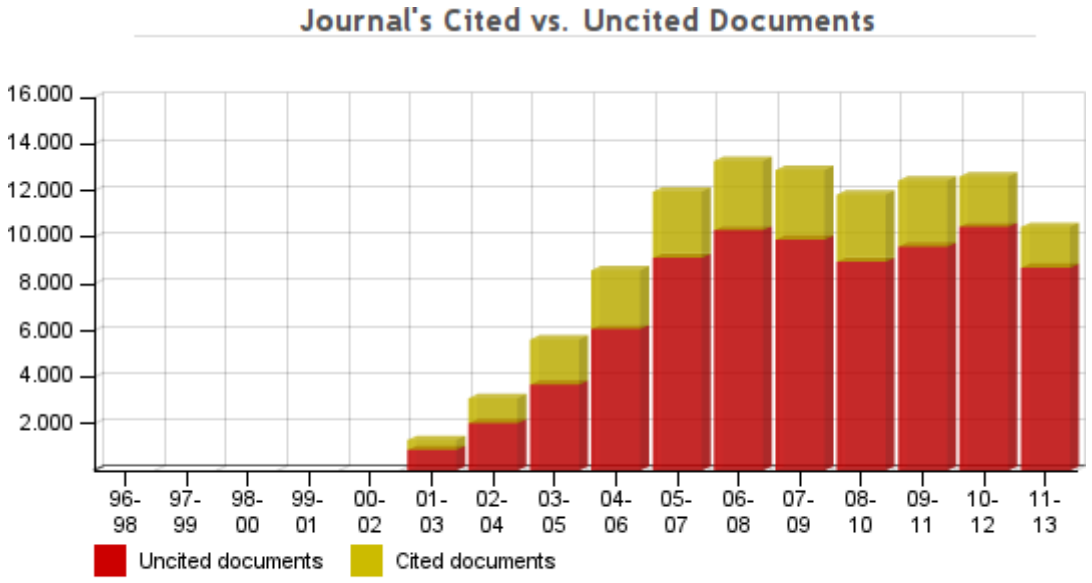
Ratio of a journal's items, grouped in three years windows, that have been cited at least once vs. those not cited during the following year.

Acta D



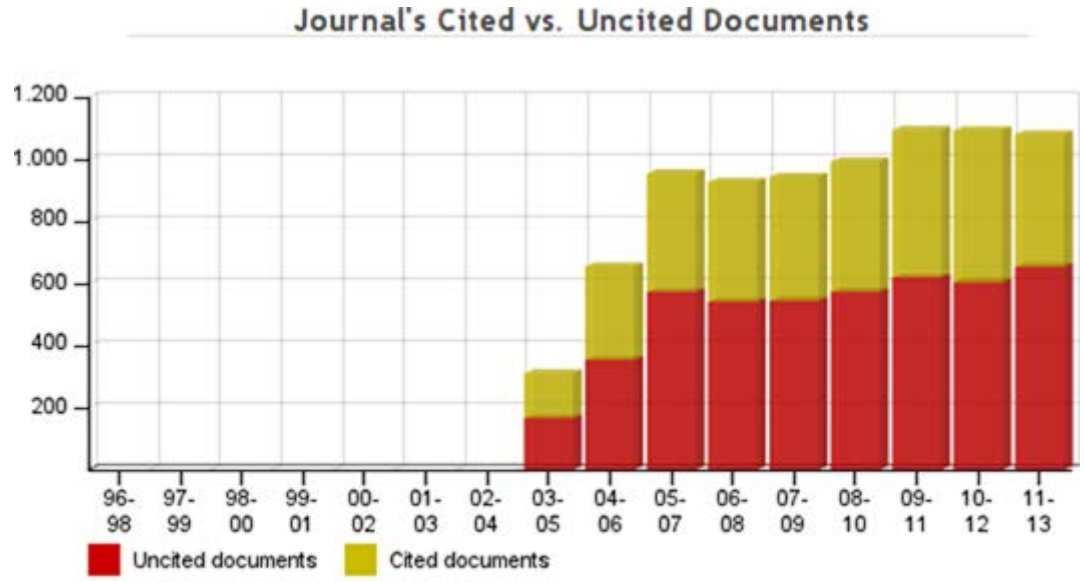
Ratio of a journal's items, grouped in three years windows, that have been cited at least once vs. those not cited during the following year.

Acta E



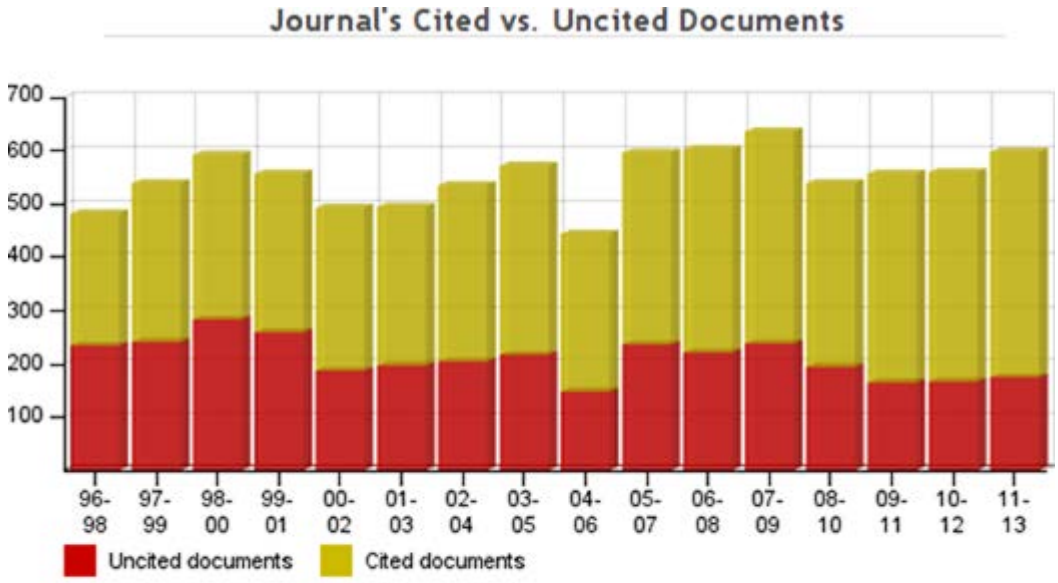
Ratio of a journal's items, grouped in three years windows, that have been cited at least once vs. those not cited during the following year.

Acta F



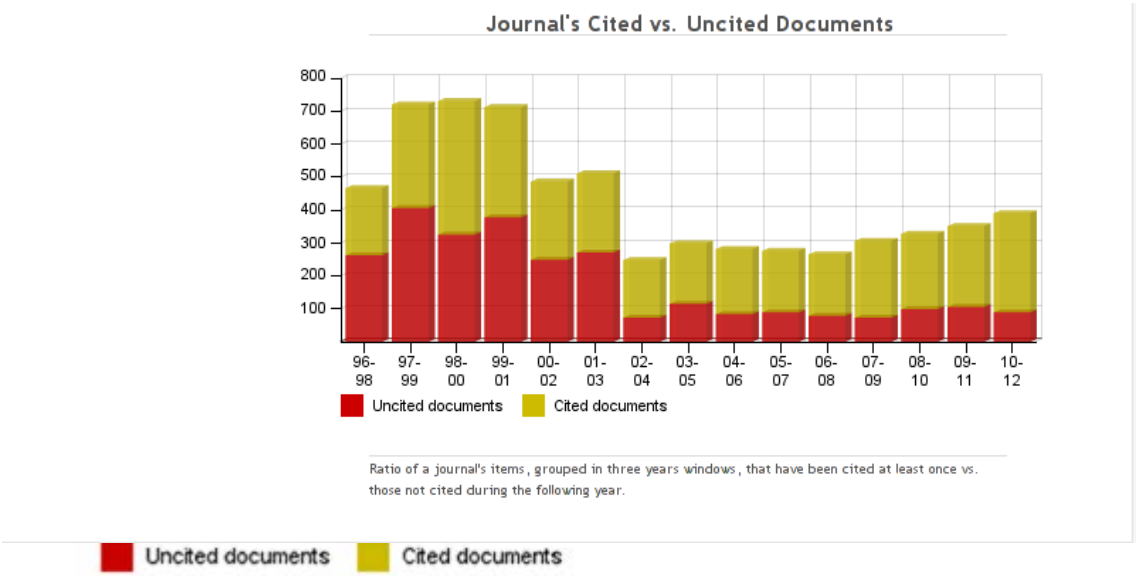
Ratio of a journal's items, grouped in three years windows, that have been cited at least once vs. those not cited during the following year.

JAC



Ratio of a journal's items, grouped in three years windows, that have been cited at least once vs. those not cited during the following year.

JSR



Ratio of a journal's items, grouped in three years windows, that have been cited at least once vs. those not cited during the following year.

Uncited documents
Cited documents

Ratio of a journal's items, grouped in three years windows, that have been cited at least once vs. those not cited during the following year.

H4. Comparison of authorship and editorial board representation against top scientific countries as measured by the Nature Index

Acta A

Acta A papers 2011-2015				Number of Co-editors in country	Nature ranking* of country
Acta A rank	Country	Number of papers	% of total		
1	USA	92	27.7%	3	1
2	GERMANY	52	15.7%	1	3
3	UK	36	10.8%	1	4
4	FRANCE	34	10.2%		6
5	ITALY	27	8.1%	1	7
6	RUSSIA	24	7.2%		14
7	AUSTRALIA	20	6.0%		12
7	SWITZERLAND	20	6.0%	1	9
9	POLAND	18	5.4%		-
10	NETHERLANDS	16	4.8%	1	14
11	JAPAN	15	4.5%	1	5
12	SPAIN	11	3.3%		11
13	DENMARK	9	2.7%		-
13	PEOPLES R CHINA	9	2.7%		2
15	BRAZIL	7	2.1%	1	-
15	CZECH REPUBLIC	7	2.1%		-
17	CANADA	6	1.8%		10
17	PHILIPPINES	6	1.8%		-
19	NEW ZEALAND	5	1.5%		-
19	AUSTRIA	4	1.2%		-

* Based on Nature Physical Sciences.

Countries publishing frequently (top ten) but not represented on the editorial board: France, Russia, Australia, Poland

Nature ranked countries (top ten) not on the editorial board: China (2), France (6), South Korea (8), Canada (10)

Acta B

Acta B papers 2011-2015				Number of Co-editors in country	Nature ranking* of country
Acta B rank	Country	Number of papers	% of total		
1	GERMANY	86	21.2%	1	3
2	UK	62	15.3%	3	5
3	FRANCE	50	12.3%	2	6
4	USA	43	10.6%	1	1
5	RUSSIA	41	10.1%	2	-
6	POLAND	36	8.9%	2	-
7	SPAIN	25	6.2%		10
7	ITALY	25	6.2%	1	14
9	JAPAN	23	5.9%		4
10	SWITZERLAND	21	5.2%	1	11
11	AUSTRALIA	18	4.4%	2	12
11	INDIA	18	4.4%	1	8
13	CZECH REPUBLIC	17	4.2%	1	-
14	PEOPLES R CHINA	12	3.0%	1	2
15	SWEDEN	10	2.5%		17
15	UKRAINE	10	2.5%		-
17	AUSTRIA	9	2.2%		-
17	DENMARK	9	2.2%		
17	SOUTH AFRICA	9	2.2%	1	-
20	CANADA	8	2.1%		9
20	NETHERLANDS	8	2.1%		15

* Based on Nature Chemistry.

Countries publishing frequently (top ten) but not represented on the editorial board: Spain, Japan

Nature ranked countries (top ten) not on the editorial board: Japan (4), South Korea (7), Canada (9), Spain (10)

Acta C

Acta C papers 2011-2015				Number of Co-editors in country	Nature ranking* of country
Acta C rank	Country	Number of papers	% of total		
1	PEOPLES R CHINA	306	24.3%	1	2
2	UK	154	12.2%	4	5
3	USA	147	11.7%	4	1
4	GERMANY	127	10.1%	1	3
5	POLAND	66	5.3%	2	-
6	INDIA	62	4.9%		8
7	SPAIN	61	4.8%	1	10
8	ARGENTINA	53	4.2%		-
8	COLOMBIA	53	4.2%		-
10	RUSSIA	37	2.9%		-
11	FRANCE	35	2.8%	1	6
12	CHILE	31	2.5%		-
13	CANADA	29	2.3%		9
13	JAPAN	29	2.3%	2	4
13	SOUTH AFRICA	29	2.3%		-
13	UKRAINE	29	2.3%		-
17	SWITZERLAND	30	2.2%	1	11
18	AUSTRIA	26	2.1%		-
19	CZECH REPUBLIC	24	1.9%		-
20	BRAZIL	23	1.8%		-

* Based on Nature Chemistry.

Countries publishing frequently (top ten) but not represented on the editorial board: India, Argentina, Colombia, Russia

Other countries represented on the editorial board: Portugal (2), Sweden, Netherlands

Nature ranked countries (top ten) not on the editorial board: South Korea (7), India (8), Canada (9)

Acta D

Acta D papers 2011-2015				Number of Co-editors in country	Nature ranking* of country
Acta D rank	Country	Number of papers	% of total		
1	USA	384	33.4%	5	1
2	UK	210	18.3%	3	2
3	GERMANY	138	12.0%	1	3
4	FRANCE	109	9.5%	1	7
5	JAPAN	97	8.5%	2	5
6	PEOPLES R CHINA	87	7.6%		4
7	SOUTH KOREA	62	5.4%		15
8	INDIA	48	4.2%		20
9	AUSTRALIA	47	4.1%	3	8
10	SPAIN	44	3.8%		10
11	ITALY	29	2.7%		12
12	POLAND	32	3.0%		-
13	RUSSIA	34	3.2%		-
14	CANADA	28	2.6%	1	6
15	NETHERLANDS	28	2.6%		11
16	SWITZERLAND	29	2.7%		9
17	DENMARK	23	2.1%		16
18	TAIWAN	28	2.6%		-
19	SWEDEN	22	2.0%		13
20	AUSTRIA	14	1.2%		-
20	BELGIUM	14	1.2%		-
20	NEW ZEALAND	14	1.2%		-

* Based on Nature Life Sciences.

Countries publishing frequently (top ten) but not represented on the editorial board: China, South Korea, India, Spain

Other countries represented on the editorial board: Brazil, Hong Kong, Luxembourg

Nature ranked countries (top ten) not on the editorial board: China (4), Switzerland (9), Spain (10)

Acta F

Acta F papers 2011-2015				Number of Co-editors in country	Nature ranking* of country
Acta F rank	Country	Number of papers	% of total		
1	USA	367	21.9%	9	1
2	PEOPLES R CHINA	253	15.1%		4
3	JAPAN	217	13.0%	2	5
4	GERMANY	157	9.4%	2	3
5	UK	147	8.8%	2	2
6	SOUTH KOREA	144	8.6%	1	15
7	INDIA	109	6.5%	1	20
8	FRANCE	94	5.6%	1	7
9	AUSTRALIA	74	4.4%	1	8
10	SPAIN	59	3.5%		10
11	CANADA	56	3.3%	1	6
12	BRAZIL	44	2.6%		23
13	PORTUGAL	35	2.1%		-
13	TAIWAN	35	2.1%		-
15	DENMARK	32	1.9%		16
15	ISRAEL	32	1.9%		14
17	AUSTRIA	26	1.6%		18
17	NEW ZEALAND	26	1.6%		-
19	BELGIUM	23	1.4%		17
20	ITALY	22	1.3%		12
20	SINGAPORE	22	1.3%		

* Based on Nature Life Sciences.

Countries publishing frequently (top ten) but not represented on the editorial board: China, Spain

Other countries represented on the editorial board: Sweden

Nature ranked countries (top ten) not on the editorial board: China (4), Switzerland (9), Spain (10)

JAC

JAC papers 2011-2015				Number of Co-editors in country	Nature ranking* of country
JAC rank	Country	Number of papers	% of total		
1	USA	250	22.7%	5	1
2	GERMANY	228	20.7%	4	3
3	FRANCE	199	18.0%	2.5	6
4	UK	122	11.1%	0.5	4
5	ITALY	90	8.2%		7
6	PEOPLES R CHINA	78	7.1%		2
7	JAPAN	68	6.2%	1	5
8	AUSTRALIA	60	5.4%	1	14
9	RUSSIA	54	4.9%		15
10	SWITZERLAND	52	4.7%	1	9
11	DENMARK	43	3.9%		-
12	INDIA	41	3.7%	1	12
13	CZECH REPUBLIC	36	3.3%	1	-
14	NETHERLANDS	34	3.1%		13
15	SPAIN	32	2.9%	1	11
16	POLAND	29	2.6%		-
16	SWEDEN	29	2.6%	1	17
18	BRAZIL	23	2.1%		-
19	SOUTH KOREA	21	1.9%		8
20	CANADA	17	1.5%		

* Based on Nature Physical Sciences.

Countries publishing frequently (top ten) but not represented on the editorial board: China, Italy

Nature ranked countries (top ten) not on the editorial board: China (2), Italy (7), South Korea (8), Canada (10)

JSR

JSR papers 2011-2015				Number of Co-editors in country	Nature ranking* of country
JSR rank	Country	Number of papers	% of total		
1	USA	231	28.2%	4	1
2	FRANCE	161	19.7%	1	6
3	GERMANY	146	17.9%	2	3
4	JAPAN	141	17.2%	4	5
5	UK	72	8.8%	1	4
6	SWITZERLAND	71	8.7%		9
7	AUSTRALIA	63	7.7%		14
8	ITALY	61	7.5%		7
9	PEOPLES R CHINA	59	7.2%		2
10	CANADA	35	4.3%		10
11	SWEDEN	28	3.4%	2	17
12	RUSSIA	27	3.3%		15
13	SOUTH KOREA	24	2.9%		8
14	SPAIN	22	2.7%		11
15	CZECH REPUBLIC	14	1.7%		-
16	BRAZIL	11	1.3%	1	-
16	TAIWAN	11	1.3%		19
18	AUSTRIA	10	1.2%		-
18	INDIA	10	1.2%		12
20	NETHERLANDS	9	1.1%		13

* Based on Nature Physical Sciences.

Countries publishing frequently (top ten) but not represented on the editorial board: Switzerland, Australia, Italy, China, Canada

Nature ranked countries (top ten) not on the editorial board: China (2), Italy (7), South Korea (8), Switzerland (9), Canada (10)

H5. Editorial appointments

Main and Co-editor appointments in 2015

Number	Name	M/F	Country	Date of Birth	PhD year	h-index	Journal	Main or Co-editor	Status
1	Francesca Fabbiani	F	Germany	1980	2006	20	Acta B	Co-editor	Appointed
2	Albert Berghuis	M	Canada	1960	1993	30	Acta D	Co-editor	Appointed
3	Mirjam Czjzek	**F**	France	1961	1990	38	Acta D	Co-editor	Appointed
4	Kay Diederichs	M	Germany	1957		38	Acta D	Co-editor	Appointed
5	Genji Kurisu	M	Japan	1969	1997	22	Acta D	Co-editor	Appointed
6	Zbyszek Dauter	M	USA	1948	1975	58	Acta F	**Main Editor**	Previously Acta D
7	Flora Meilleur	**F**	USA	1976	2004	17	JAC	Co-editor	Appointed
8	Arwen Pearson	**F**	Germany		2001	18	JAC	Co-editor	Appointed
9	Yoshiyuki Amemiya	M	Japan	1952	1979	37	JSR	**Main Editor**	Appointed
10	Michael Eriksson	M	Sweden	1945	1976	14	JSR	**Main Editor**	Appointed
11	Dmitry Argyriou	M	Sweden	1966	1994	40	IUCrJ	**Main Editor**	Appointed
12	Werner Kuhlbrandt	M	Germany	1951	1981	53	IUCrJ	Co-editor	Appointed
13	Sriram Subramaniam	M	USA		1987	52	IUCrJ	Co-editor	Appointed

H6. Editorial boards

Acta A

Name	Code	M/F	Country	Date of birth	PhD year	h-index (2013)	Journal	Main or Co-editor	Due to retire in 2017?
Altomare, Dr Angela	AE	F	Italy	1963	1988	28	Acta A	Co-editor	
Billinge, Professor Simon	IB	M	USA	1964	1992	40	Acta A	Main Editor	
Eon, Professor Dr Jean-Guillaume	EO	M	Brazil	1952	1984	14	Acta A	Co-editor	Yes
Keen, Professor David	VK	M	UK	1964	1991	54	Acta A	Co-editor	
Kuhs, Professor Dr Werner	KX	M	Germany	1952	1991	35	Acta A	Co-editor	
Marks, Professor Laurie	LK	M	USA		1980	40	Acta A	Co-editor	
Miao, Professor John	MQ	M	USA		1999	28	Acta A	Main Editor	
Schenk, Professor Henk	SC	M	Netherlands	1939	1969	28	Acta A	Co-editor	Yes
Tsuda, Professor Kenji	TD	M	Japan	1964	1991	17	Acta A	Co-editor	
Willmott, Professor Philip	WO	M	Switzerland	1963	1991	23	Acta A	Co-editor	

Acta B

Name	Code	M/F	Country	Date of birth	PhD year	h-index (2013)	Journal	Main or Co-editor	Due to retire in 2017?
Billing, Dr Dave	ZB	M	South Africa	1966	1995	10	Acta B	Co-editor	Yes
Blake, Professor Sandy	BM	M	UK	1954	1980	68	Acta B	Main Editor	
de Boissieu, Marc	DQ	M	France	1956		34	Acta B	Main Editor	
Boldyreva, Professor Elena	EB	F	Russia	1961	1988	27	Acta B	Co-editor	Yes
Bolotina, Dr Nadezhda	BP	F	Russia	1949		9	Acta B	Co-editor	Yes
Bordet, Dr Pierre	YB	M	France	1957	1989	33	Acta B	Co-editor	
Cerny, Professor Radek	RA	M	Switzerland	1957	1990	40	Acta B	Co-editor	
Du, Professor Dr Miao	UM	M	China	1976	2003	53	Acta B	Co-editor	
Dusek, Dr Michal	DK	M	Czech Republic	1964	1994	19	Acta B	Co-editor	
Fabbiani, Dr Francesca	FX	F	Germany	1980	2006	20	Acta B	Co-editor	
Guru Row, Professor T. N.	GW	M	India	1951	1976	30	Acta B	Co-editor	Yes
Howard, Dr Chris	HW	M	Australia	1942	1969	34	Acta B	Co-editor	Yes
Katrusiak, Professor Andrzej	XK	M	Poland	1955	1983	29	Acta B	Co-editor	
Lipkowski, Professor Janusz	LO	M	Poland	1943		47	Acta B	Co-editor	
Metrangolo, Professor Dr Pierangelo	AO	M	Italy	1972	2001	42	Acta B	Co-editor	
Parsons, Professor Simon	PS	M	UK	1965	1991	60	Acta B	Co-editor	Yes
Pinkerton, Professor Alan	PI	M	USA	1943	1971	34	Acta B	Co-editor	Yes
Welberry, Professor Richard	WF	M	Australia	1945	1970	29	Acta B	Co-editor	Yes

Acta C

Name	Code	M/F	Country	Date of birth	PhD year	h-index (2013)	Journal	Main or Co-editor	Due to retire in 2017?
Almeida Paz, Dr Filipe A.	FP	M	Portugal	1978	2004	29	Acta C	Co-editor	
Cheung, Dr Eugene	CU	M	USA			10	Acta C	Co-editor	
Duarte, Professor Teresa	DT	F	Portugal	1968	1989	26	Acta C	Co-editor	Yes
Englert, Professor Ulli	EG	M	Germany	1957		36	Acta C	Co-editor	Yes
Falvello, Professor Larry	FA	M	Spain	1954	1979	42	Acta C	Co-editor	Yes
Fanwick, Dr Phil	FN	M	USA	1947	1977	47	Acta C	Co-editor	Yes
Frampton, Professor Chris	FM	M	UK	1958	1985	23	Acta C	Co-editor	
Kennedy, Dr Alan	KY	M	UK	1969	1993	36	Acta C	Co-editor	
Kubicki, Dr Maciej	KU	M	Poland	1963	1991	29	Acta C	Co-editor	Yes
Langer, Professor Vratislav	LG	M	Sweden	1949	1978	27	Acta C	Co-editor	Yes
Linden, Professor Tony	LN	M	Switzerland	1957	1986	37	Acta C	Main Editor	Yes
Lu, Professor Tong-Bu	LF	M	China		1993	31	Acta C	Co-editor	
Lugan, Dr Noël	LY	M	France	1958	1987	32	Acta C	Co-editor	
Ohgo, Professor Yoshiki	YO	M	Japan	1968	1997	24	Acta C	Co-editor	
Oliver, Professor Allen	OV	M	USA	1971	2000	18	Acta C	Co-editor	
Raithby, Professor Paul	RH	M	UK	1951		60	Acta C	Main Editor	
Santarsiero, Professor Bernie	QS	M	USA	1952	1980	45	Acta C	Co-editor	
Spek, Professor Ton	SK	M	Netherlands	1944	1975	78	Acta C	Co-editor	
Uekusa, Dr Hidehiro	UK	M	Japan	1964	1992	22	Acta C	Co-editor	Yes
White, Professor Jonathan	WQ	M	Australia	1959	1984	25	Acta C	Co-editor	
Yap, Dr Glenn	YP	M	USA	1962	1992	54	Acta C	Co-editor	
Yufit, Dr Dmitry	YF	M	UK	1957	1989	30	Acta C	Co-editor	

Acta D

Name	Code	M/F	Country	Date of birth	PhD year	h-index (2013)	Journal	Main or Co-editor	Due to retire in 2017?
Berghuis, Professor Albert	AG	M	Canada	1960	1993	30	Acta D	Co-editor	
Bond, Professor Charlie	CB	M	Australia	1970	1996	27	Acta D	Co-editor	
Czjzek, Dr Mirjam	JC	F	France	1961	1990	38	Acta D	Co-editor	
Derewenda, Professor Zygmunt	DW	M	USA		1981	52	Acta D	Co-editor	
Diederichs, Professor Kay	DI	M	Germany	1957		38	Acta D	Co-editor	
Garman, Professor Elspeth	GM	F	UK	1954	1980	41	Acta D	Co-editor	
Garratt, Professor Richard	GI	M	Brazil	1960	1989	23	Acta D	Co-editor	
Hao, Professor Quan	QH	M	Hong Kong	1963	1988	25	Acta D	Co-editor	
Kleywegt, Professor Gerard	KW	M	UK	1962	1991	40	Acta D	Co-editor	
Kurisu, Professor Genji	JI	M	Japan	1969	1997	22	Acta D	Co-editor	
Langan, Professor Paul	LP	M	USA	1963	1990	22	Acta D	Co-editor	
Martin, Professor Jenny	JM	F	Australia		1990	52	Acta D	Main Editor	
McKenna, Professor Rob	MN	M	USA		1989	34	Acta D	Co-editor	
Miki, Professor Kunio	MH	M	Japan	1952	1981	45	Acta D	Co-editor	Yes
Newman, Dr Janet	NJ	F	Australia		1993	13	Acta D	Co-editor	
Read, Professor Randy	RR	M	UK	1957	1986	50	Acta D	Main Editor	
Schiltz, Professor Marc	TZ	M	Luxembourg	1969	1997	16	Acta D	Co-editor	
Wakatsuki, Professor Soichi	WA	M	USA	1959	1990	34	Acta D	Main Editor	
Yeates, Professor Todd	YT	M	USA	1961	1988	45	Acta D	Co-editor	Yes

Acta E

Name	Code	M/F	Country	Date of birth	PhD year	h-index (2013)	Journal	Main or Co-editor	Due to retire in 2017?
Baggio, Dr Ricardo	BG	M	Argentina	1946	1975	24	Acta E	Co-editor	Yes
Blacque, Dr Olivier	ZQ	M	Switzerland	1971	1999	23	Acta E	Co-editor	
Bombicz, Dr Petra	ZP	F	Hungary	1966	1993	16	Acta E	Co-editor	
Brown, Professor David	BR	M	Canada	1932	1959	39	Acta E	Co-editor	Yes
Büyükgüngör, Professor Dr Orhan	BQ	M	Turkey	1954	1983	21	Acta E	Co-editor	Yes
Chernyshev, Professor Vladimir	CV	M	Russia	1955	1988	12	Acta E	Co-editor	Yes
Chippindale, Dr Ann	CQ	F	UK	1961	1987	30	Acta E	Co-editor	
Dastidar, Professor Partho	DS	M	India	1964	1994	29	Acta E	Co-editor	
Fabian, Dr Laszlo	FY	M	UK	1973	2000	19	Acta E	Co-editor	
Farrugia, Dr Louis	FJ	M	UK	1952	1979	32	Acta E	Co-editor	Yes
Fejfarova, Dr Karla	FF	F	Czech Republic		2010	11	Acta E	Co-editor	
Flörke, Dr Ulrich	FK	M	Germany	1952	1980	39	Acta E	Co-editor	
Gdaniec, Professor Maria	GK	F	Poland	1951	1978	27	Acta E	Co-editor	Yes
Guru Row, Professor T. N.	GW	M	India	1951	1976	30	Acta E	Co-editor	Yes
Harrison, Dr Bill	HB	M	UK	1960	1986	43	Acta E	Main Editor	
Healy, Dr Peter	HG	M	Australia	1947	1972	42	Acta E	Co-editor	Yes
Herdtweck, Dr Eberhardt	HP	M	Germany	1948	1978	57	Acta E	Co-editor	
Imhof, Dr Wolfgang	IM	M	Germany	1962	1992	21	Acta E	Co-editor	Yes
Ishida, Dr Hiroyuki	IS	M	Japan	1956	1985	22	Acta E	Co-editor	Yes
Jasinski, Professor Jerry	JJ	M	USA	1940	1974	24	Acta E	Co-editor	
Khrustalev, Professor Viktor	KQ	M	Russia	1968	2000	20	Acta E	Co-editor	
Lindeman, Dr Sergey	LD	M	USA	1958	1988	29	Acta E	Co-editor	
Lough, Dr Alan	LH	M	Canada	1960	1988	62	Acta E	Co-editor	Yes
Mague, Professor Joel	MW	M	USA	1940	1965	40	Acta E	Co-editor	
McArdle, Professor Patrick	QM	M	Ireland	1945	1969	24	Acta E	Co-editor	
Nichol, Dr Gary	NK	M	UK	1980	2006	12	Acta E	Co-editor	
Nieger, Dr Martin	NR	M	Finland	1959	1989	40	Acta E	Co-editor	
Parkin, Dr Sean	PK	M	USA	1966	1993	38	Acta E	Co-editor	Yes
Prior, Dr Tim	PJ	M	UK	1976	2002	19	Acta E	Co-editor	
Rizzoli, Professor Corrado	RZ	M	Italy	1957	1981	41	Acta E	Co-editor	Yes
Roussel, Dr Pascal	RU	M	France	1971		16	Acta E	Co-editor	
Rybakov, Dr Victor	RK	M	Russia	1950	1982	15	Acta E	Co-editor	Yes
Simpson, Professor Jim	SJ	M	New Zealand	1942	1967	35	Acta E	Co-editor	
Smith, Dr Graham	ZS	M	Australia	1941	1978	34	Acta E	Co-editor	
Stoeckli-Evans, Professor Helen	SU	F	Switzerland	1944	1969	46	Acta E	Main Editor	
Tiekink, Professor Edward	TK	M	Malaysia	1960	1985	53	Acta E	Main Editor	
Van Meervelt, Professor Luc	VM	M	Belgium	1958	1986	32	Acta E	Main Editor	
van der Lee, Dr Arie	VN	M	France	1964	1992	26	Acta E	Co-editor	
Weil, Dr Matthias	WM	M	Austria	1970	1999	12	Acta E	Main Editor	
Xu, Professor Duanjun	XU	M	China			26	Acta E	Co-editor	Yes
Yatsenko, Professor Alexandr	YK	M	Russia	1960	1988	10	Acta E	Co-editor	

Name	Code	M/F	Country	Date of birth	PhD year	h-index (2013)	Journal	Main or Co-editor	Due to retire in 2017?
Zeller, Dr Matthias	ZL	M	USA	1972	2000	27	Acta E	Co-editor	Yes

Acta F

Name	Code	M/F	Country	Date of birth	PhD year	h-index (2013)	Journal	Main or Co-editor	Due to retire in 2017?
Beamer, Professor Lesa	UB	F	USA	1963	1991	18	Acta F	Co-editor	
Bergfors, Terese	BO	F	Sweden	1955		19	Acta F	Co-editor	Yes
Dauter, Dr Zbyszek	DZ	M	USA	1948	1975	58	Acta F	Main Editor	
Dunten, Dr Pete	DP	M	USA		1989	15	Acta F	Co-editor	
Einspahr, Dr Howard	EN	M	USA	1943	1970	22	Acta F	Co-editor	
Hunter, Professor Bill	HV	M	UK	1958	1982	41	Acta F	Main Editor	
Nakagawa, Professor Atsushi	NW	M	Japan	1961	1989	30	Acta F	Co-editor	
Newman, Dr Janet	NJ	F	Australia		1993	13	Acta F	Co-editor	Yes
Pauptit, Dr Richard	PQ	M	UK	1954	1981	27	Acta F	Co-editor	
Privé, Professor Gil	PG	M	Canada	1960	1988	33	Acta F	Co-editor	
Pusey, Dr Marc	PU	M	USA	1948	1980	29	Acta F	Co-editor	Yes
Renaud, Dr Jean-Paul	RP	M	France	1960	1986	32	Acta F	Co-editor	Yes
Sankaranarayanan, Dr Sankar	US	M	India	1968	1996	18	Acta F	Co-editor	
Stanfield, Professor Robyn	RL	F	USA	1958	1986	41	Acta F	Co-editor	
Sträter, Professor Dr Norbert	NO	M	Germany	1965	1994	23	Acta F	Co-editor	
Suh, Professor Se Won	SW	M	South Korea	1951	1980	32	Acta F	Co-editor	Yes
Tanaka, Professor Isao	TB	M	Japan	1948	1979	27	Acta F	Co-editor	Yes
Terwilliger, Dr Tom	TT	M	USA	1956	1981	50	Acta F	Co-editor	Yes
Tsai, Professor Francis	FT	M	USA		1997	15	Acta F	Co-editor	
Weiss, Dr Manfred	WD	M	Germany	1963	1992	32	Acta F	Main Editor	Yes
Westbrook, Professor John	WJ	M	USA			32	Acta F	Co-editor	

IUCrJ

Name	Code	M/F	Country	Date of birth	PhD year	h-index (2013)	Journal	Main or Co-editor	Due to retire in 2017?
Argyriou, Professor Dimitri	AH	M	Sweden	1966	1994	40	IUCrJ	Main Editor	
Baker, Professor Ted	BE	M	New Zealand	1942	1968	64	IUCrJ	Main Editor	
Bushnell, Dr Dave	DC	M	USA			27	IUCrJ	Co-editor	
Catlow, Professor Richard	CX	M	UK	1947	1974	73	IUCrJ	Main Editor	
Chapman, Professor Henry	CW	M	Germany		1992	36	IUCrJ	Co-editor	
Cormack, Professor Alistair	CT	M	USA			29	IUCrJ	Co-editor	
Desiraju, Professor Gautam	DE	M	India	1952	1976	65	IUCrJ	Co-editor	
Eddaoudi, Professor Mohamed	ED	M	Saudi Arabia		1996	48	IUCrJ	Co-editor	
Fitch, Andy	FC	M	France	1956	1982	38	IUCrJ	Co-editor	
Forsyth, Professor Trevor	FS	M	France/UK			18	IUCrJ	Co-editor	
Gratias, Dr Denis	GQ	M	France	1947	1972	28	IUCrJ	Co-editor	
Heald, Dr Steve	HF	M	USA		1976	48	IUCrJ	Co-editor	
Ishikawa, Dr Tetsuya	IT	M	Japan	1954	1982	44	IUCrJ	Co-editor	
Kühlbrandt, Professor Werner	KF	M	Germany	1951	1981	53	IUCrJ	Co-editor	

Name	Code	M/F	Country	Date of birth	PhD year	h-index (2013)	Journal	Main or Co-editor	Due to retire in 2017?
Larsen, Professor Sine	LS	F	Denmark	1943		26	IUCrJ	Main Editor	
Lecomte, Professor Claude	LC	M	France	1948	1979	38	IUCrJ	Co-editor	
Liu, Professor James	LZ	M	China	1962	1994	19	IUCrJ	Co-editor	
Moffat, Dr Keith	MF	M	USA	1943	1970	46	IUCrJ	Co-editor	
Murakami, Professor Youichi	YU	M	Japan	1957	1985	13 (unreliable)	IUCrJ	Co-editor	
Robinson, Professor Ian	RO	M	UK	1955	1981	43	IUCrJ	Co-editor	
Smith, Professor Janet	JT	F	USA	1951	1978	27	IUCrJ	Co-editor	
Spence, Professor John	SP	M	USA	1946	1973	44	IUCrJ	Main Editor	
Su, Professor Cheng-Yong	YC	M	China	1968		45	IUCrJ	Co-editor	
Subramaniam, Professor Sriram	UA	M	USA		1987	52	IUCrJ	Co-editor	
Takata, Professor Masaki	TI	M	Japan	1959	1988	33 (unreliable)	IUCrJ	Co-editor	
Trewhella, Professor Jill	TJ	F	Australia	1953	1981	36	IUCrJ	Co-editor	
Zhang, Professor Xiaozhong	ZX	M	China		1989	48	IUCrJ	Co-editor	

JAC

Name	Code	M/F	Country	Date of birth	PhD year	h-index (2013)	Journal	Main or Co-editor	Due to retire in 2017?
Allen, Dr Andrew	AJ	M	USA		1981	24	JAC	Main Editor	
Barty, Dr Anton	YR	M	Germany	1971	2000	28	JAC	Co-editor	
Borbely, Dr Andras	NB	M	France	1960	1996	22	JAC	Co-editor	
Boutet, Dr Sebastien	TE	M	USA		2005	28	JAC	Co-editor	
Chapman, Dr Karena	KC	F	USA		2005	27	JAC	Co-editor	
Forsyth, Professor Trevor	FS	M	France/UK			18	JAC	Co-editor	
Garcia-Ruiz, Professor Juanma	GJ	M	Spain	1953	1980	35	JAC	Co-editor	
Gilbert, Dr Elliot	GE	M	Australia	1970	1998	20	JAC	Co-editor	
Hajdu, Professor Janos	JO	M	Sweden	1948	1973	51	JAC	Main Editor	
Holy, Professor Dr Vaclav	VH	M	Czech Republic	1953	1982	28	JAC	Co-editor	
Kaysser-Pyzalla, Professor Dr Anke	PY	F	Germany	1966	1995	15	JAC	Main Editor	Yes
Kostorz, Professor Gernot	KS	M	Switzerland	1941	1968	30	JAC	Co-editor	
Meilleur, Professor Flora	EI	F	USA	1976	2004	17	JAC	Co-editor	
Pandey, Professor Dhananjai	PD	M	India	1952	1976	33	JAC	Co-editor	
Pearson, Professor Arwen	AP	F	Germany		2001	18	JAC	Co-editor	
Proffen, Dr Thomas	PO	M	USA	1964	1995	29	JAC	Co-editor	
Renaud, Dr Gilles	RG	M	France	1963	1988	29	JAC	Co-editor	
Sasaki, Professor Toshi	TO	M	Japan	1951	1979	27	JAC	Co-editor	
Svergun, Dr Dmitri	VG	M	Germany	1954	1982	47	JAC	Co-editor	

JSR

Name	Code	M/F	Country	Date of birth	PhD year	h-index (2013)	Journal	Main or Co-editor	Due to retire in 2017?
Amemiya, Professor Yoshiyuki	AY	M	Japan	1952	1979	37	JSR	Main Editor	
Craievich, Professor Aldo	CO	M	Brazil	1939	1969	30	JSR	Co-editor	
Eriksson, Professor Mikael	XE	M	Sweden	1945	1976	14	JSR	Main Editor	

Name	Code	M/F	Country	Date of birth	PhD year	h-index (2013)	Journal	Main or Co-editor	Due to retire in 2017?
Favre-Nicolin, Dr Vincent	FV	M	France	1972	1999	15	JSR	Co-editor	
Grübel, Dr Gerhard	GB	M	Germany		1987	33	JSR	Co-editor	
Heald, Dr Steve	HF	M	USA		1976	48	JSR	Co-editor	
Ice, Professor Gene	IE	M	USA	1950	1997	31	JSR	Main Editor	Yes
Momose, Professor Atsushi	MO	M	Japan		MEng 1987	23	JSR	Co-editor	
Pianetta, Professor Piero	PP	M	USA		1976	41	JSR	Co-editor	
Reis, Professor David	RX	M	USA		1999	22	JSR	Co-editor	
Schlichting, Ilme	IG	F	Germany	1960	1999	51	JSR	Main Editor	
Strange, Dr Richard	RV	M	UK			34	JSR	Co-editor	
Svensson, Professor Svante	VE	M	Sweden		1976	44	JSR	Co-editor	
van der Veen, Professor Friso	VV	M	Netherlands	1949	1978	53	JSR	Main Editor	
Yabashi, Dr Makina	YI	M	Japan	1971	2003	30	JSR	Co-editor	
Yamamoto, Dr Masaki	YN	M	Japan	1963	1991		JSR	Co-editor	

H7. Citation information for commentaries

Journal	Year	Vol	Pages	Title	Author	Cites	Refers to	Cites
Acta A	2014	A70	1-2	Reflections on the magnetic pair distribution function	W. Ratcliff II	0	Acta Cryst. (2014), A70, 3-11	3
Acta A	2014	A70	521-523	New capabilities for `colouring in' the chemistry of crystal defects atom-by-atom	S. J. Haigh	0	Acta Cryst. (2014), A70, 524-531	1
Acta A	2015	A71	141-142	The revival of the Bravais lattice	H. D. Flack	0	Acta Cryst. (2015). A71, 143-149*	4
Acta A	2015	A71	351-352	Accessible atomic structures from sub-micron protein crystals	J. A. Rodriguez	0	Acta Cryst. (2015), A71, 353-360*	1
Acta A	2016	A72	177-178	Cryo-coherent diffractive imaging of biological samples with X-ray free-electron lasers	H. Jiang	0	Acta Cryst. (2016). A72, 179-189*	1
Acta A	2016	A72	265-267	Simple graphs that guide combinatorial materials design	P. M. Duxbury	0	Acta Cryst. (2016). A72, 268-293	1
Acta B	2014	B70	401-402	A simple approach to understand the high-pressure calcium conundrum	P. Dera	1	Acta Cryst. (2014). B70, 423-428	7
Acta B	2014	B70	403	Crystallographic studies of gas sorption in metal-organic frameworks	L. J. Barbour	0	Acta Cryst. (2014). B70, 404-422*	20
Acta B	2014	B70	781-782	A hybrid pixel detector at an in-house device generating stunning charge density quality data	D. Stalke	2	Acta Cryst. (2014). B70, 783-791	3
Acta B	2015	B71	125-126	Taking a closer look for a broader view: combining powder diffraction with electron crystallography for a better understanding of modulated structures	L. Palatinus	0	Acta Cryst. (2015). B71, 127-143*	3
Acta B	2015	B71	247-249	Probing the structure of framework materials by high pressure and the example of a magnetic, non-porous coordination polymer	F. P. A. Fabbiani	0	Acta Cryst. (2015). B71, 252-257*	3
Acta B	2015	B71	250-251	Structures beyond superspace	M. Senechal	5	Acta Cryst. (2015). B71, 258-274*	2
Acta B	2015	B71	585-586	Metal-organic frameworks: the pressure is on	F.-X. Coudert	0	Acta Cryst. (2015). B71, 587-607*	2
Acta B	2015	B71	737-739	Closing the gap between electron and X-ray crystallography	E. Mugnaioli	0	Acta Cryst. (2015). B71, 740-751	3
Acta B	2016	B72	1-2	Polarization in RMnO3 multiferroics	A. N. Pirogov	0	Acta Cryst. (2016). B72, 3-19*	1
Acta B	2016	B72	167-168	The development and use of a crystallographic database	C. H. Görbitz	0	Acta Cryst. (2016). B72, 171-179*	1
Acta B	2016	B72	169-170	Expanding the usage of the Source Function to experimental electron densities	J. Overgaard	0	Acta Cryst. (2016). B72, 180-193*	1
Acta D	2014	D70	3088-3089	To free or not to free?	A. Urzhumtsev	0	Acta Cryst. (2014). D70, 3124-3134*	2
Acta D	2015	D71	1226-1227	Advances in membrane protein crystallography: in situ and in meso data collection	S. Weyand and C. G. Tate	0	Acta Cryst. (2015). D71, 1228-1237*	3
Acta D	2016	D72	601-602	Objective evaluation of radiation damage in a nucleoprotein complex	Z. Dauter	0	Acta Cryst. (2016). D72, 648-657*	1
JAC	2014	47	4-5	Radioactive waste limits in cement to avoid leaching out	J. R. Helliwell	0	J. Appl. Cryst. (2014). 47, 421-429	5
JAC	2014	47	1163-1164	Promising times for neutron scattering	K. H. Andersen and J. G. Barker	1	J. Appl. Cryst. (2014). 47, 1180-1189	4
JAC	2014	47	1807-1808	New enhanced tool for neutron spin echo spectroscopy	F. Mezei	0	J. Appl. Cryst. (2014). 47, 1849-1854	2
JAC	2015	48	1614-1616	Accurate strain determination from digital image correlation of Laue diffraction spots	A. Borbély	0	J. Appl. Cryst. (2015). 48, 1805-1817	2
JAC	2015	48	1617-1618	Inside the bulk of magnetic nanocomposites: I am not what I am	H. B. Stuhrmann	0	J. Appl. Cryst. (2015). 48, 1437-1450*	1
JSR	2016	23	383-384	Hybrid pixel array detectors enter the low noise regime	H. Graafsma	0	J. Synchrotron Rad. (2016). 23, 385-394	1
IUCrJ	2014	1	3-4	Phasing tiny crystals	J. Miao and J. A.	1	IUCrJ (2014) 1, 19-	9

Journal	Year	Vol	Pages	Title	Author	Cites	Refers to	Cites
					Rodriguez		27*	
IUCrJ	2014	1	5-7	Type II halogen...halogen contacts are halogen bonds	P. Metrangolo and G. Resnati	25	IUCrJ (2014) 1, 49-60*	31
IUCrJ	2014	1	84-86	Serial crystallography using synchrotron radiation	M. G. Rossmann	4	IUCrJ (2014) 1, 87-94*	46
IUCrJ	2014	1	153-154	Hidden motion made known - rotational X-ray tracking reveals spinning colloids	A. Sandy	0	IUCrJ (2014) 1, 172-178*	3
IUCrJ	2014	1	202-203	Multiple chemical scaffolds inhibit a promising Leishmania drug target	M. Walkinshaw	0	IUCrJ (2014) 1, 250-260*	11
IUCrJ	2014	1	263-264	Tackling a difficult question: how do crystals of coordination polymers form?	S. L. James	1	IUCrJ (2014) 1, 318-327*	4
IUCrJ	2014	1	265-266	Accurate H-atom parameters from X-ray diffraction data	L. J. Farrugia	0	IUCrJ (2014) 1, 361-379*	12
IUCrJ	2015	2	3-4	Serial crystallography for the masses?	J. P. Wright	1	IUCrJ (2015) 2, 29-34*	3
IUCrJ	2015	2	5-6	Photocrystallography reveals new metastable nitrosyl linkage isomers in the solid state	P. R. Raithby	0	IUCrJ (2015) 2, 35-44*	4
IUCrJ	2015	2	7-8	Solving difficult structures with electron diffraction	J. M. Zuo and J. L. Rouviére	0	IUCrJ (2015) 2, 126-136*	5
IUCrJ	2015	2	164-165	Solving coiled-coil protein structures	Z. Dauter	1	IUCrJ (2015) 2, 198-206*	1
IUCrJ	2015	2	166-167	Topochemical control in desolvation of coordination polymers	M. Lusi	0	IUCrJ (2015) 2, 188-197*	3
IUCrJ	2015	2	307-308	Powder to become crystal clear	Q. Hao	0	IUCrJ (2015) 2, 322-326*	2
IUCrJ	2015	2	387-388	Integral membrane proteins and free electron lasers - a compatible couple indeed!	M. C. Wiener	0	IUCrJ (2015) 2, 409-420*	3
IUCrJ	2015	2	477-478	Coherent three-dimensional X-ray cryo-imaging	I. Robinson	0	IUCrJ (2015) 2, 575-583*	5
IUCrJ	2015	2	479-480	Complexity at mesoscopic lengthscale	T. Egami	0	IUCrJ (2015) 2, 511-522*	2
IUCrJ	2015	2	605-606	Are X-rays the key to integrated computational materials engineering?	G. Ice	0	IUCrJ (2015) 2, 635-642*	2
IUCrJ	2015	2	607-608	Will measuring mechanical properties help us understand solid-state reactions?	I. D. Williams	0	IUCrJ (2015) 2, 653-660*	1
IUCrJ	2015	2	609-610	Proteins: interaction at a distance	R. A. Laskowski and J. M. Thornton	0	IUCrJ (2015) 2, 643-652*	1
IUCrJ	2016	3	8-9	Perovskites take the lead in local structure analysis	D. A. Keen	1	IUCrJ (2016) 3, 20-31*	2
IUCrJ	2016	3	86-87	Cracks observed to propagate discontinuously on the millisecond timescale	B. K. Tanner	0	IUCrJ (2016) 3, 108-114*	1
IUCrJ	2016	3	180-191	De novo phasing with optimized XFEL data	Q. Hao	0	IUCrJ (2016) 3, 180-191*	1

* Open access.

H8. Additional citation information

Acta A

Citation information for special issues and article categories

Values are for the average number of citations per paper with the total number of papers in the issue or category in parentheses.

Volume	Part	All Papers	SI papers	Non-SI papers	Editorial	Scientific commentaries	Essays	Feature articles	Full articles	Short communications	Letters to the editor	Addenda and errata	Obituaries	Book reviews	Special Issue
67	1	12.8(10)	0.0(0)	12.8(10)	0	0	0	0	14.1(9)	1.0(1)	0	0	0	0	
67	2	25.2(5)	0.0(0)	25.2(5)	0	0	0	0	25.2(5)	0	0	0	0	0	
67	3	5.1(17)	0.0(0)	5.1(17)	0	0	0	0	5.7(15)	0	0.5(2)	0	0	0	
67	4	6.9(12)	0.0(0)	6.9(12)	0	0	0	0	7.1(11)	5.0(1)	0	0	0	0	
67	5	5.0(9)	0.0(0)	5.0(9)	0	0	0	0	5.1(8)	4.0(1)	0	0	0	0	
67	6	3.6(10)	0.0(0)	3.6(10)	0	0	0	0	4.4(8)	0.5(2)	0	0	0	0	
68	1	11.4(14)	6.0(5)	14.4(9)	0	0	0	0	11.4(14)	0	0	0	0	0	Laue centennial
68	2	4.8(17)	0.0(0)	4.8(17)	0	0	0	0	5.8(12)	2.8(4)	0	0	0.0(1)	0	
68	3	6.6(11)	0.0(0)	6.6(11)	0	0	0	0	6.7(10)	6.0(1)	0	0	0	0	
68	4	10.0(11)	0.0(0)	10.0(11)	0	0	0	0	11.0(10)	0	0	0	0.0(1)	0	
68	5	7.0(8)	0.0(0)	7.0(8)	0	0	0	0	7.0(8)	0	0	0	0	0	
68	6	5.2(12)	0.0(0)	5.2(12)	0	0	0	5.0(1)	5.8(10)	0	0	0.0(1)	0	0	
69	1	4.0(17)	3.4(11)	5.2(6)	8.0(1)	0	0	0	4.0(15)	0.0(1)	0	0	0	0	Bragg centennial
69	2	6.1(9)	0.0(0)	6.1(9)	0	0	0	0	6.9(8)	0	0	0.0(1)	0	0	
69	3	6.0(9)	0.0(0)	6.0(9)	0	0	0	0	6.0(9)	0	0	0	0	0	
69	4	3.4(11)	0.0(0)	3.4(11)	0	0	1.0(1)	0	3.6(10)	0	0	0	0	0	
69	5	5.0(8)	0.0(0)	5.0(8)	0	0	0	0	5.7(7)	0	0	0	0.0(1)	0	
69	6	3.9(11)	0.0(0)	3.9(11)	0.0(1)	0	0	0	4.8(9)	0	0	0	0	0.0(1)	
70	1	4.6(8)	0.0(0)	4.6(8)	0	0.0(1)	0	0	5.3(7)	0	0	0	0	0	
70	2	4.2(10)	0.0(0)	4.2(10)	0	0	0	0	4.2(10)	0	0	0	0	0	
70	3	2.9(9)	0.0(0)	2.9(9)	0	0	0	0	2.8(8)	4.0(1)	0	0	0	0	
70	4	2.4(10)	0.0(0)	2.4(10)	3.0(1)	0	0	0	2.6(8)	0.0(1)	0	0	0	0	
70	5	2.1(9)	0.0(0)	2.1(9)	0	0	0	0	2.1(9)	0	0	0	0	0	

Volume	Part	All Papers	SI papers	Non-SI papers	Editorial	Scientific commentaries	Essays	Feature articles	Full articles	Short communications	Letters to the editor	Addenda and errata	Obituaries	Book reviews	Special Issue
70	6	1.5(19)	0.0(0)	1.5(19)	0	0.0(1)	0	0	1.6(14)	2.5(2)	0	0.0(2)	0	0	
71	1	6.1(13)	0.0(0)	6.1(13)	4.0(1)	0	0	0	6.8(11)	0.0(1)	0	0	0	0	
71	2	1.0(15)	0.0(0)	1.0(15)	0	0.0(1)	0	0	1.2(12)	0.0(1)	0	0	1.0(1)	0	
71	3	0.4(10)	0.0(0)	0.4(10)	0	0	0	0	0.4(9)	0.0(1)	0	0	0	0	
71	4	0.7(12)	0.0(0)	0.7(12)	0	0.0(1)	0	1.0(1)	0.8(9)	0.0(1)	0	0	0	0	
71	5	0.1(8)	0.0(0)	0.1(8)	0	0	0	0	0.1(8)	0	0	0	0	0	
71	6	0.2(8)	0.0(0)	0.2(8)	0.0(1)	0	0	0	0.3(6)	0	0	0.0(1)	0	0	

Acta B

Citation information for special issues and article categories

Values are for the average number of citations per paper with the total number of papers in the issue or category in parentheses.

Volume	Part	All Papers	SI papers	Non-SI papers	Editorial	Scientific commentaries	Essays	Lead articles	Feature articles	Research papers	Short communications	Letters to the editor	Addenda and errata	Obituaries	Special Issue
67	1	7.6(8)	0.0(0)	7.6(8)	0	0	0	0	0	7.6(8)	0	0	0	0	
67	2	9.2(8)	0.0(0)	9.2(8)	0	0	0	0	0	9.2(8)	0	0	0	0	
67	3	6.3(9)	0.0(0)	6.3(9)	0	0	0	0	0	7.4(7)	5.0(1)	0	0	0.0(1)	
67	4	8.4(10)	0.0(0)	8.4(10)	0	0	0	0	20.0(1)	8.0(8)	0	0	0.0(1)	0	
67	5	5.9(7)	0.0(0)	5.9(7)	0	0	0	0	0	5.9(7)	0	0	0	0	
67	6	18.2(14)	0.0(0)	18.2(14)	0	0	0	0	0	18.2(14)	0	0	0	0	
68	1	9.2(13)	0.0(0)	9.2(13)	0	0	0	0	0	10.2(10)	1.0(1)	0	8.5(2)	0	
68	2	5.5(15)	0.0(0)	5.5(15)	0	0	0	0	0	6.0(13)	5.0(1)	0	0	0.0(1)	
68	3	10.6(12)	0.0(0)	10.6(12)	0	0	0	0	34.0(1)	9.2(9)	5.0(2)	0	0	0	
68	4	4.3(14)	0.0(0)	4.3(14)	0	0	0	0	0	4.5(13)	0	0	1.0(1)	0	
68	5	4.8(9)	0.0(0)	4.8(9)	0	0	0	0	0	4.8(9)	0	0	0	0	
68	6	5.9(13)	0.0(0)	5.9(13)	0	0	0	0	0	5.9(13)	0	0	0	0	
69	1	8.4(10)	0.0(0)	8.4(10)	0	0	0	38.0(1)	0	5.5(8)	2.0(1)	0	0	0	
69	2	7.7(13)	0.0(0)	7.7(13)	0	0	0	35.0(1)	0	5.4(12)	0	0	0	0	
69	3	25.3(9)	0.0(0)	25.3(9)	0	0	0	0	0	28.5(8)	0	0	0.0(1)	0	
69	4	5.8(13)	0.0(0)	5.8(13)	1.0(1)	0	0	43.0(1)	0	2.6(10)	6.0(1)	0	0	0	
69	5	3.8(12)	0.0(0)	3.8(12)	0	0	0	0	0	3.8(12)	0	0	0	0	
69	6	1.6(14)	0.0(0)	1.6(14)	0	0	0	0	0	1.3(13)	6.0(1)	0	0	0	
70	1	4.9(21)	4.9(21)	0.0(0)	1.0(1)	0	0	0	17.0(1)	4.5(19)	0	0	0	0	Crystal engineering
70	2	3.0(21)	0.0(0)	3.0(21)	0	0	0	0	0	3.2(20)	0.0(1)	0	0	0	
70	3	2.3(26)	2.3(15)	2.2(11)	3.0(1)	0.5(2)	0	0	15.0(1)	1.9(20)	1.0(2)	0	0	0	Non-ambient crystallography
70	4	2.9(16)	0.0(0)	2.9(16)	0	0	0	13.0(1)	0	2.2(14)	0	2.0(1)	0	0	
70	5	1.4(16)	0.0(0)	1.4(16)	0	2.0(1)	0	0	0	1.6(13)	0.0(2)	0	0	0	

Volume	Part	All Papers	SI papers	Non-SI papers	Editorial	Scientific commentaries	Essays	Lead articles	Feature articles	Research papers	Short communications	Letters to the editor	Addenda and errata	Obituaries	Special Issue
70	6	3.0(14)	0.0(0)	3.0(14)	0	0	0	0	0	3.5(12)	0.0(1)	0	0	0.0(1)	
71	1	0.7(15)	0.0(0)	0.7(15)	0.0(1)	0	0	0	0	0.8(13)	1.0(1)	0	0	0	
71	2	0.9(14)	0.0(0)	0.9(14)	0	0.0(1)	0	0	3.0(1)	0.9(10)	1.0(1)	0	0.0(1)	0	
71	3	0.9(15)	0.0(0)	0.9(15)	0	2.5(2)	0	0	2.5(2)	0.3(11)	0	0	0	0	
71	4	0.3(11)	0.0(0)	0.3(11)	0	0	2.0(1)	0	0.0(1)	0.1(8)	0.0(1)	0	0	0	
71	5	0.4(9)	0.0(0)	0.4(9)	0	0	0	0	0	0.4(9)	0	0	0	0	
71	6	0.8(25)	1.2(14)	0.4(11)	0.0(1)	0.0(2)	0	0	2.0(1)	0.9(21)	0	0	0	0	Energy materials

Acta C

Citation information for special issues and article categories

Values are for the average number of citations per paper with the total number of papers in the issue or category in parentheses.

Volume	Part	All Papers	SI papers	Non-SI papers	Editorial	Scientific comment	Feature articles	Research papers	Letters to the editor	Addenda and errata	Special Issue
67	1	2.1(19)	0.0(0)	2.1(19)	0.0(1)	0	0	2.2(18)	0	0	
67	2	2.0(19)	0.0(0)	2.0(19)	0	0	0	2.0(19)	0	0	
67	3	2.7(18)	0.0(0)	2.7(18)	0	0	0	2.7(18)	0	0	
67	4	1.6(17)	0.0(0)	1.6(17)	0	0	0	1.6(17)	0	0	
67	5	2.5(25)	0.0(0)	2.5(25)	0	0	0	2.5(25)	0	0	
67	6	1.6(20)	0.0(0)	1.6(20)	0	0	0	1.8(18)	0	0.5(2)	
67	7	2.6(27)	0.0(0)	2.6(27)	0	0	0	2.6(27)	0	0	
67	8	2.5(17)	0.0(0)	2.5(17)	0	0	0	2.5(17)	0	0	
67	9	2.0(18)	0.0(0)	2.0(18)	0	0	0	2.0(18)	0	0	
67	10	1.7(18)	0.0(0)	1.7(18)	0	0	0	1.7(18)	0	0	
67	11	2.4(22)	0.0(0)	2.4(22)	0	0	0	2.4(22)	0	0	
67	12	2.0(18)	0.0(0)	2.0(18)	1.0(1)	0	0	2.1(17)	0	0	
68	1	2.3(17)	0.0(0)	2.3(17)	0.0(1)	0	0	2.4(16)	0	0	
68	2	2.5(19)	0.0(0)	2.5(19)	0	0	0	2.5(19)	0	0	
68	3	2.0(23)	0.0(0)	2.0(23)	0	0	0	2.0(23)	0	0	
68	4	1.4(16)	0.0(0)	1.4(16)	0	0	0	1.4(16)	0	0	
68	5	1.1(12)	0.0(0)	1.1(12)	0	0	0	1.1(12)	0	0	
68	6	1.7(17)	0.0(0)	1.7(17)	0	0	0	1.7(17)	0	0	
68	7	1.6(19)	0.0(0)	1.6(19)	0	0	0	1.6(19)	0	0	
68	8	1.4(22)	0.0(0)	1.4(22)	0	0	0	1.4(22)	0	0	
68	9	1.6(20)	0.0(0)	1.6(20)	0	0	0	1.6(20)	0	0	
68	10	1.8(22)	0.0(0)	1.8(22)	0	0	0	1.8(22)	0	0	
68	11	1.3(23)	0.0(0)	1.3(23)	0	0	0	1.3(23)	0	0	
68	12	1.1(21)	0.0(0)	1.1(21)	2.0(1)	0	0	1.1(20)	0	0	
69	1	1.4(25)	0.0(0)	1.4(25)	0	0	0	1.4(25)	0	0	

Volume	Part	All Papers	SI papers	Non-SI papers	Editorial	Scientific comment	Feature articles	Research papers	Letters to the editor	Addenda and errata	Special Issue
69	2	0.6(22)	0.0(0)	0.6(22)	0	0	0	0.6(22)	0	0	
69	3	1.5(25)	0.0(0)	1.5(25)	0	0	0	1.5(25)	0	0	
69	4	0.9(34)	0.0(0)	0.9(34)	1.0(1)	0	0	0.9(31)	0	0.0(2)	
69	5	2.3(26)	0.0(0)	2.3(26)	0	0	0	2.3(26)	0	0	
69	6	1.1(29)	0.0(0)	1.1(29)	0	0	0	1.1(29)	0	0	
69	7	1.5(26)	0.0(0)	1.5(26)	0	0	0	1.5(26)	0	0	
69	8	0.8(31)	0.0(0)	0.8(31)	0	2.5(2)	0	0.7(29)	0	0	
69	9	0.8(34)	0.9(11)	0.7(23)	3.0(1)	0	0	0.7(33)	0	0	Scorpionates
69	10	1.1(27)	0.0(0)	1.1(27)	0	0	0	1.1(27)	0	0	
69	11	1.3(43)	1.6(14)	1.2(29)	1.0(1)	0	0	1.4(41)	0	0.0(1)	Pharmaceuticals and natural products
69	12	0.9(32)	1.7(7)	0.7(25)	0.0(1)	0	0	0.9(31)	0	0	Crystallography, spectroscopy and theory
70	1	0.9(17)	0.0(0)	0.9(17)	0.0(1)	0	0	1.0(15)	0	0.0(1)	
70	2	1.9(27)	5.5(8)	0.4(19)	0	0	0	1.9(27)	0	0	Computational materials discovery
70	3	1.4(20)	0.0(0)	1.4(20)	0	0	0	1.4(20)	0	0	
70	4	0.8(16)	0.0(0)	0.8(16)	0	0.0(1)	0	0.8(15)	0	0	
70	5	0.8(22)	0.0(0)	0.8(22)	0	0	0	0.8(22)	0	0	
70	6	1.4(22)	0.0(0)	1.4(22)	0	0	0	1.4(22)	0	0	
70	7	0.3(21)	0.0(0)	0.3(21)	0.0(1)	0	0	0.3(20)	0	0	
70	8	0.5(21)	0.0(0)	0.5(21)	0	0	0	0.6(20)	0.0(1)	0	
70	9	1.1(17)	0.0(0)	1.1(17)	0	1.0(1)	0	1.1(16)	0	0	
70	10	0.7(16)	0.0(0)	0.7(16)	0	0	0	0.7(16)	0	0	
70	11	0.6(20)	0.0(0)	0.6(20)	0	0	0	0.6(20)	0	0	
70	12	0.7(18)	0.0(0)	0.7(18)	0	0	0	0.7(18)	0	0	
71	1	11.2(12)	0.0(0)	11.2(12)	0.0(1)	0	62.0(2)	1.1(9)	0	0	
71	2	0.4(17)	0.0(0)	0.4(17)	0	0	0	0.4(17)	0	0	
71	3	0.9(14)	0.0(0)	0.9(14)	0	0	0	0.9(14)	0	0	

Volume	Part	All Papers	SI papers	Non-SI papers	Editorial	Scientific comment	Feature articles	Research papers	Letters to the editor	Addenda and errata	Special Issue
71	4	0.8(19)	0.0(0)	0.8(19)	0	0	0	0.8(19)	0	0	
71	5	0.1(14)	0.0(0)	0.1(14)	0	0	0	0.2(13)	0	0.0(1)	
71	6	0.0(16)	0.0(0)	0.0(16)	0	0	0	0.0(16)	0	0	
71	7	0.6(20)	0.0(0)	0.6(20)	0	0	0	0.6(20)	0	0	
71	8	0.2(19)	0.0(0)	0.2(19)	0	0	0	0.2(19)	0	0	
71	9	0.1(15)	0.0(0)	0.1(15)	0	0	0	0.1(15)	0	0	
71	10	0.1(17)	0.0(0)	0.1(17)	0	0	0	0.1(17)	0	0	
71	11	0.1(16)	0.0(0)	0.1(16)	0	0	0	0.1(16)	0	0	
71	12	0.1(16)	0.0(0)	0.1(16)	0	0	0	0.1(16)	0	0	

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Citation information for special issues and article categories

Values are for the average number of citations per paper with the total number of papers in the issue or category in parentheses.

Volume	Part	All Papers	SI papers	Non-SI papers	Editorial	Scientific commentaries	Scientific comment	Essays	Feature articles	Research papers	Short communications	Letters to the editor	Addenda and errata	Issue preface	Obituaries	Special Issue
67	1	10.1(8)	0.0(0)	10.1(8)	0	0	0	0	0	10.1(8)	0	0	0	0	0	
67	2	8.4(9)	0.0(0)	8.4(9)	0	0	0	0	0	8.4(9)	0	0	0	0	0	
67	3	7.3(10)	0.0(0)	7.3(10)	0	0	0	0	0	7.7(9)	4.0(1)	0	0	0	0	
67	4	381.6(18)	381.6(18)	0.0(0)	0	0	0	0	0	403.1(17)	0	0	0	16.0(1)	0	CCP4: From Crystal to Structure with CCP4
67	5	9.8(12)	0.0(0)	9.8(12)	0	0	0	0	0	9.8(12)	0	0	0	0	0	
67	6	11.9(12)	0.0(0)	11.9(12)	0	0	0	0	0	12.7(11)	0	0	3.0(1)	0	0	
67	7	6.6(8)	0.0(0)	6.6(8)	0	0	0	0	0	6.6(8)	0	0	0	0	0	
67	8	3.7(10)	0.0(0)	3.7(10)	0	0	0	0	0	4.0(7)	4.5(2)	0	0.0(1)	0	0	
67	9	9.3(10)	0.0(0)	9.3(10)	0	0	0	0	0	9.3(10)	0	0	0	0	0	
67	10	8.8(9)	0.0(0)	8.8(9)	0	0	0	0	0	7.1(8)	22.0(1)	0	0	0	0	
67	11	9.5(11)	0.0(0)	9.5(11)	0	0	0	0	0	9.5(11)	0	0	0	0	0	
67	12	5.4(12)	0.0(0)	5.4(12)	0	0	0	0	0	7.0(9)	1.0(1)	0	0.5(2)	0	0	
68	1	10.8(9)	0.0(0)	10.8(9)	0	0	0	0	0	10.8(9)	0	0	0	0	0	
68	2	8.7(12)	0.0(0)	8.7(12)	0	0	0	0	0	8.7(12)	0	0	0	0	0	
68	3	6.1(14)	0.0(0)	6.1(14)	0	0	0	0	0	5.2(13)	18.0(1)	0	0	0	0	
68	4	56.3(18)	56.3(18)	0.0(0)	0	0	0	0	0	59.6(17)	0	0	0	1.0(1)	0	CCP4: Model building, refinement and validation
68	5	12.4(13)	0.0(0)	12.4(13)	0	0	0	8.0(1)	0	12.8(12)	0	0	0	0	0	
68	6	9.4(14)	0.0(0)	9.4(14)	0.0(1)	0	58.0(1)	0	0	6.5(11)	2.0(1)	0	0	0	0	
68	7	7.0(16)	0.0(0)	7.0(16)	0	0	0	0	0	7.5(15)	0	0	0.0(1)	0	0	
68	8	8.3(22)	0.0(0)	8.3(22)	0	0	0	0	0	8.3(22)	0	0	0	0	0	
68	9	6.7(21)	0.0(0)	6.7(21)	0	0	0	0	0	6.7(20)	7.0(1)	0	0	0	0	
68	10	10.3(20)	0.0(0)	10.3(20)	0	0	0	0	0	11.5(18)	0	0	0.0(2)	0	0	
68	11	5.7(18)	0.0(0)	5.7(18)	0.0(1)	0	0	0	0	3.8(14)	25.0(2)	0	0	0	0.0(1)	
68	12	5.8(13)	0.0(0)	5.8(13)	0	0	0	0	0	7.0(10)	2.0(3)	0	0	0	0	

Volume	Part	All Papers	SI papers	Non-SI papers	Editorial	Scientific commentaries	Scientific comment	Essays	Feature articles	Research papers	Short communications	Letters to the editor	Addenda and errata	Issue preface	Obituaries	Special Issue
69	1	5.8(17)	0.0(0)	5.8(17)	0.0(1)	0	2.0(1)	0	0	6.2(14)	9.0(1)	0	0	0	0	
69	2	4.9(17)	0.0(0)	4.9(17)	1.0(1)	0	0	0	0	5.1(15)	5.0(1)	0	0	0	0	
69	3	5.3(19)	0.0(0)	5.3(19)	0	0	0	0	0	5.6(17)	6.0(1)	0	0	0	0.0(1)	
69	4	5.2(20)	0.0(0)	5.2(20)	0	0	0	0	0	5.2(20)	0	0	0	0	0	
69	5	6.6(28)	8.6(5)	6.2(23)	0	0	0	0	0	7.0(26)	2.0(2)	0	0	0	0	Integrative structural biology
69	6	5.2(28)	0.0(0)	5.2(28)	0	0	0	0	0	5.6(26)	0	0	0.0(2)	0	0	
69	7	38.8(15)	38.8(15)	0.0(0)	0	0	0	0	0	38.8(15)	0	0	0	0	0	CCP4: Data collection and processing
69	8	6.5(28)	0.0(0)	6.5(28)	0	0	0	0	6.0(1)	6.5(27)	0	0	0	0	0	
69	9	4.5(24)	0.0(0)	4.5(24)	0	0	0	0	0	4.7(22)	3.0(1)	0	0.0(1)	0	0	
69	10	5.3(29)	0.0(0)	5.3(29)	0	0	8.0(1)	0	0	5.0(26)	7.0(2)	0	0	0	0	
69	11	5.3(16)	5.3(16)	0.0(0)	0	0	0	0	0	5.3(16)	0	0	0	0	0	CCP4: Molecular replacements
69	12	3.4(32)	0.0(0)	3.4(32)	0	0	1.0(1)	0	0	4.2(26)	1.0(1)	0.0(2)	0.0(2)	0	0	
70	1	4.0(22)	0.0(0)	4.0(22)	0	0	0	0	0	4.3(20)	2.0(1)	0.0(1)	0	0	0	
70	2	3.6(39)	0.0(0)	3.6(39)	0	0	0	0	0	3.6(39)	0	0	0	0	0	
70	3	3.0(29)	0.0(0)	3.0(29)	0	0	0	2.0(1)	0	3.1(27)	0.0(1)	0	0	0	0	
70	4	2.9(26)	0.0(0)	2.9(26)	0	0	0	0	0	3.2(24)	0	0	0.0(2)	0	0	
70	5	3.5(31)	0.0(0)	3.5(31)	0	0	0	0	0	3.6(29)	6.0(1)	0	0.0(1)	0	0	
70	6	3.9(28)	0.0(0)	3.9(28)	0	0	0	0	0	3.9(28)	0	0	0	0	0	
70	7	2.0(25)	0.0(0)	2.0(25)	0	0	0	0	0	2.1(24)	0	0	0.0(1)	0	0	
70	8	3.7(16)	0.0(0)	3.7(16)	0	0	0	0	0	3.7(16)	0	0	0	0	0	
70	9	4.4(23)	0.0(0)	4.4(23)	0	0	0	0	2.0(1)	4.5(22)	0	0	0	0	0	
70	10	3.0(29)	5.0(5)	2.5(24)	0	0	0	0	0	3.3(25)	0	0.8(4)	0	0	0	Diffraction data deposition
70	11	1.6(28)	0.0(0)	1.6(28)	0	0	0	0	0.0(1)	1.7(26)	0	0	1.0(1)	0	0	
70	12	1.5(23)	0.0(0)	1.5(23)	0	0.0(1)	0	0	0	1.5(22)	0	0	0	0	0	
71	1	3.4(17)	3.4(17)	0.0(0)	0.0(1)	0	0	0	0	3.6(16)	0	0	0	0	0	CCP4: Two Way Street - Complementary Methods
71	2	1.8(25)	0.0(0)	1.8(25)	0	0	0	0	0	1.9(24)	0	0	0.0(1)	0	0	
71	3	1.8(29)	0.0(0)	1.8(29)	0	0	0	0	0	1.8(29)	0	0	0	0	0	
71	4	1.0(26)	0.0(0)	1.0(26)	0	0	0	0	0	1.0(25)	0	0	0.0(1)	0	0	
71	5	1.3(19)	0.0(0)	1.3(19)	0	0	0	0	1.0(1)	1.3(18)	0	0	0	0	0	
71	6	1.0(18)	0.0(0)	1.0(18)	0	0.0(1)	0	0	0	1.1(17)	0	0	0	0	0	
71	7	0.2(16)	0.0(0)	0.2(16)	0	0	0	0	0	0.2(16)	0	0	0	0	0	

Volume	71	71	71	71
Part	8	9	10	11	12
All Papers	1.0(19)	0.9(21)	0.2(15)	0.1(16)	0.5(16)
SI papers	0.0(0)	0.0(0)	0.0(0)	0.0(0)	0.0(0)
Non-SI papers	1.0(19)	0.9(21)	0.2(15)	0.1(16)	0.5(16)
Editorial	0	0	0	0	0
Scientific commentaries	0	0	0	0	0
Scientific comment	0	1.0(3)	0	0	0
Essays	0	0	0	0	0
Feature articles	0	0	0	0	0
Research papers	1.0(19)	0.8(18)	0.2(15)	0.1(16)	0.5(16)
Short communications	0	0	0	0	0
Letters to the editor	0	0	0	0	0
Addenda and errata	0	0	0	0	0
Issue preface	0	0	0	0	0
Obituaries	0	0	0	0	0
Special Issue					

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Citation information for special issues and article categories

Values are for the average number of citations per paper with the total number of papers in the issue or category in parentheses.

Volume	Part	All Papers	SI papers	Non-SI papers	Editorial	Scientific comment	Research papers	Structural communications	Laboratory communications	Crystallization communications	Addenda and errata	Obituaries	Special Issue
67	1	2.4(42)	0.0(0)	2.4(42)	0.0(1)	0	0	4.4(5)	0	2.1(36)	0	0	
67	2	3.3(28)	0.0(0)	3.3(28)	0	0	0	6.3(6)	0	2.5(22)	0	0	
67	3	3.2(28)	0.0(0)	3.2(28)	0	0	0	5.0(2)	2.0(1)	3.1(25)	0	0	
67	4	3.3(27)	0.0(0)	3.3(27)	0	0	0	7.8(6)	0	2.0(21)	0	0	
67	5	3.3(27)	0.0(0)	3.3(27)	0	0	0	8.2(4)	0	2.5(23)	0	0	
67	6	3.2(24)	0.0(0)	3.2(24)	0	0	0	8.0(3)	0	2.6(21)	0	0	
67	7	2.8(25)	0.0(0)	2.8(25)	0	0	0	7.8(5)	0	1.6(20)	0	0	
67	8	2.0(33)	0.0(0)	2.0(33)	0	0	0	4.1(7)	8.0(1)	1.3(23)	0.0(2)	0	
67	9	5.0(30)	5.0(30)	0.0(0)	0	0	0	2.4(21)	11.0(9)	0	0	0	Structural genomics
67	10	3.6(36)	0.0(0)	3.6(36)	2.0(1)	0	0	9.6(7)	4.0(1)	2.1(27)	0	0	
67	11	2.3(35)	0.0(0)	2.3(35)	0	0	0	3.6(8)	0	2.0(27)	0	0	
67	12	2.4(49)	0.0(0)	2.4(49)	0	0	0	4.1(12)	4.0(2)	1.9(34)	0.0(1)	0	
68	1	2.9(27)	0.0(0)	2.9(27)	0.0(1)	0	0	2.7(3)	8.0(2)	2.6(21)	0	0	
68	2	3.0(31)	0.0(0)	3.0(31)	0	0	0	6.4(8)	0	1.8(23)	0	0	
68	3	2.6(30)	0.0(0)	2.6(30)	0.0(1)	18.0(1)	0	3.2(4)	0	1.9(24)	0	0	
68	4	2.6(31)	0.0(0)	2.6(31)	0.0(1)	6.5(2)	0	3.9(9)	7.0(1)	1.4(18)	0	0	
68	5	1.8(22)	0.0(0)	1.8(22)	0	0	0	1.6(5)	3.0(3)	1.6(14)	0	0	
68	6	1.8(28)	0.0(0)	1.8(28)	0	0	0	3.2(5)	0	1.4(23)	0	0	
68	7	2.0(28)	0.0(0)	2.0(28)	0	0	0	2.5(4)	0	2.0(24)	0	0	
68	8	2.6(33)	0.0(0)	2.6(33)	0	0	0	4.0(8)	4.0(3)	1.9(22)	0	0	
68	9	1.9(32)	0.0(0)	1.9(32)	0	0	0	3.2(6)	1.0(1)	1.7(25)	0	0	
68	10	2.3(29)	0.0(0)	2.3(29)	0	0	0	3.3(7)	0	2.0(22)	0	0	
68	11	1.9(36)	0.0(0)	1.9(36)	0	0	0	4.9(7)	0.0(1)	1.4(24)	0.0(3)	0.0(1)	
68	12	2.6(34)	0.0(0)	2.6(34)	0	0	0	4.7(10)	0	1.8(24)	0	0	

Volume	Part	All Papers	SI papers	Non-SI papers	Editorial	Scientific comment	Research papers	Structural communications	Laboratory communications	Crystallization communications	Addenda and errata	Obituaries	Special Issue
69	1	2.5(20)	0.0(0)	2.5(20)	0.0(1)	0	0	4.3(6)	0	1.8(13)	0	0	
69	2	2.3(28)	0.0(0)	2.3(28)	2.0(1)	0	0	1.5(4)	11.3(3)	1.1(20)	0	0	
69	3	1.9(26)	0.0(0)	1.9(26)	0	0	0	2.4(5)	0.0(1)	1.9(20)	0	0	
69	4	1.8(28)	0.0(0)	1.8(28)	0	0	0	1.6(11)	0	1.8(17)	0	0	
69	5	1.7(29)	0.0(0)	1.7(29)	0	0	0	3.3(6)	0	1.3(23)	0	0	
69	6	2.2(29)	0.0(0)	2.2(29)	0	0	0	4.3(9)	0.0(1)	1.4(18)	0.0(1)	0	
69	7	1.8(25)	0.0(0)	1.8(25)	2.0(1)	6.0(1)	0	2.0(7)	4.0(2)	1.1(14)	0	0	
69	8	1.2(30)	0.0(0)	1.2(30)	1.0(1)	0	0	1.7(6)	0	1.1(23)	0	0	
69	9	1.6(27)	0.0(0)	1.6(27)	0	0	0	1.1(7)	7.5(2)	1.2(17)	1.0(1)	0	
69	10	1.2(28)	0.0(0)	1.2(28)	0	4.0(1)	0	1.3(3)	0	1.1(24)	0	0	
69	11	1.2(35)	0.0(0)	1.2(35)	0	0	0	1.5(4)	0	1.4(26)	0.0(5)	0	
69	12	1.5(30)	0.0(0)	1.5(30)	1.0(1)	0	0	2.8(6)	0	1.2(23)	0	0	
70	1	2.5(27)	0.0(0)	2.5(27)	0.0(1)	0	0	1.2(4)	4.0(1)	2.8(21)	0	0	
70	2	1.8(27)	0.0(0)	1.8(27)	0	0	0	1.5(4)	0	1.8(23)	0	0	
70	3	1.0(23)	0.0(0)	1.0(23)	0	0	0	2.4(5)	0.0(1)	0.7(17)	0	0	
70	4	1.4(30)	0.0(0)	1.4(30)	0	0	0	1.3(9)	0	1.4(21)	0	0	
70	5	0.8(31)	0.0(0)	0.8(31)	0	0	0	1.2(6)	0.0(1)	0.7(23)	0.0(1)	0	
70	6	1.0(31)	0.0(0)	1.0(31)	0	0	0	0.6(5)	0	1.0(26)	0	0	
70	7	1.2(30)	0.0(0)	1.2(30)	0	0	0	0.9(8)	0	1.3(22)	0	0	
70	8	1.0(23)	0.0(0)	1.0(23)	0	0	0	1.2(5)	1.0(1)	0.9(17)	0	0	
70	9	1.3(36)	0.0(0)	1.3(36)	0	0	0	2.2(13)	0.0(1)	0.9(22)	0	0	
70	10	0.5(30)	0.0(0)	0.5(30)	0	0	0	0.2(6)	1.0(1)	0.6(22)	0	0.0(1)	
70	11	0.7(25)	0.0(0)	0.7(25)	0	0	0	0.3(6)	1.0(1)	0.8(18)	0	0	
70	12	1.2(30)	0.0(0)	1.2(30)	1.0(1)	0	0	2.3(3)	2.0(2)	1.0(24)	0	0	
71	1	1.1(23)	0.0(0)	1.1(23)	0	0	1.1(23)	0	0	0	0	0	
71	2	0.5(23)	0.0(0)	0.5(23)	0	0	0.5(23)	0	0	0	0	0	
71	3	0.7(18)	0.0(0)	0.7(18)	0	0	0.7(18)	0	0	0	0	0	
71	4	0.4(21)	0.0(0)	0.4(21)	0	0	0.4(21)	0	0	0	0	0	
71	5	0.3(18)	0.3(18)	0.0(0)	0.0(1)	0	0.4(17)	0	0	0	0	0	Molecular parasitology
71	6	0.3(31)	0.0(0)	0.3(31)	0	0	0.3(30)	0	0	0	0.0(1)	0	

Volume	Part	All Papers	SI papers	Non-SI papers	Editorial	Scientific comment	Research papers	Structural communications	Laboratory communications	Crystallization communications	Addenda and errata	Obituaries	Special Issue
71	7	0.7(18)	1.2(9)	0.1(9)	0	0	0.7(18)	0	0	0	0	0	ICCBM15
71	8	0.3(32)	0.0(0)	0.3(32)	0	0	0.3(32)	0	0	0	0	0	
71	9	0.0(15)	0.0(0)	0.0(15)	0	0	0.0(15)	0	0	0	0	0	
71	10	0.3(24)	0.0(0)	0.3(24)	0	0	0.3(24)	0	0	0	0	0	
71	11	0.1(14)	0.0(0)	0.1(14)	0	0	0.1(14)	0	0	0	0	0	
71	12	0.0(14)	0.0(0)	0.0(14)	0.0(1)	0	0.0(12)	0	0	0	0.0(1)	0	

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Citation information for special issues and article categories

Values are for the average number of citations per paper with the total number of papers in the issue or category in parentheses.

Volume	Part	All Papers	SI papers	Non-SI papers	Editorial	Scientific commentaries	Feature articles	Research papers	Short communications	Teaching and education	Cryocrystallography papers	Computer programs	CIF applications	Laboratory notes	Crystallographers	Addenda and errata	Special Issue
44	1	10.0(35)	0.0(0)	10.0(35)	0	0	0	7.2(25)	8.0(2)	0	0	21.3(7)	0	4.0(1)	0	0	
44	2	10.6(24)	0.0(0)	10.6(24)	0	0	0	11.1(19)	0.0(1)	0	0	8.0(2)	0	13.5(2)	0	0	
44	3	6.5(30)	0.0(0)	6.5(30)	0	0	0	5.7(22)	1.0(1)	3.0(1)	0	9.5(4)	4.0(1)	23.0(1)	0	0	
44	4	9.1(29)	0.0(0)	9.1(29)	0	0	0	9.0(24)	0	0	0	12.0(4)	0	0	0.0(1)	0	
44	5	7.4(31)	0.0(0)	7.4(31)	0	0	0	8.7(25)	2.0(3)	0	0	2.0(2)	0	0	0	2.0(1)	
44	6	72.9(27)	0.0(0)	72.9(27)	0	0	0	4.9(16)	22.0(1)	0	0	369.8(5)	10.0(1)	1.8(4)	0	0	
45	1	5.5(22)	0.0(0)	5.5(22)	0	0	0	6.7(14)	4.0(3)	0	0	3.0(2)	0	4.0(2)	0	0.0(1)	
45	2	30.5(29)	0.0(0)	30.5(29)	0	0	0	8.3(19)	0	0	0	102.0(7)	5.0(1)	4.5(2)	0	0	
45	3	10.1(33)	0.0(0)	10.1(33)	0	0	0	6.7(23)	0	0	0	19.3(9)	0	4.0(1)	0	0	
45	4	54.0(31)	0.0(0)	54.0(31)	0	0	0	6.7(23)	4.0(1)	0.0(1)	0	299.8(5)	0	17.0(1)	0	0	
45	5	5.7(26)	0.0(0)	5.7(26)	0	0	0	5.3(22)	0	0	0	14.5(2)	0	1.0(2)	0	0	
45	6	10.9(30)	0.0(0)	10.9(30)	0	0	0	9.1(26)	9.5(2)	0	0	58.0(1)	0	15.0(1)	0	0	
46	1	5.1(38)	0.0(0)	5.1(38)	0	0	0	5.5(26)	1.0(1)	7.0(1)	8.0(1)	5.7(3)	0	2.6(5)	0	3.0(1)	
46	2	9.7(39)	0.0(0)	9.7(39)	2.0(1)	0	0	7.4(27)	0	0	4.0(1)	27.2(6)	0	2.2(4)	0	0	
46	3	4.1(36)	0.0(0)	4.1(36)	0	0	0	4.1(24)	5.2(4)	0	0	6.7(3)	0	1.6(5)	0	0	
46	4	5.4(55)	3.1(18)	6.5(37)	1.0(1)	0	0	4.5(48)	0.0(2)	0	0	25.7(3)	0	0.0(1)	0	0	X-ray diffraction and imaging
46	5	3.8(36)	0.0(0)	3.8(36)	0	0	0	3.7(29)	5.0(1)	0	9.0(1)	3.7(3)	0	5.0(1)	0	1.0(1)	
46	6	6.9(48)	0.0(0)	6.9(48)	0	0	0	7.8(39)	4.0(3)	0	0	2.8(4)	0	4.0(1)	0	0.0(1)	
47	1	4.2(61)	0.0(0)	4.2(61)	0.0(1)	0.0(1)	0	4.2(53)	3.0(1)	0	0	12.0(2)	0	2.0(2)	0	1.0(1)	
47	2	3.8(42)	0.0(0)	3.8(42)	0	0	0	2.5(38)	6.0(1)	0	0	19.3(3)	0	0	0	0	
47	3	4.3(38)	0.0(0)	4.3(38)	0	0	0	4.3(32)	0	0	0	7.0(3)	0	1.5(2)	0	1.0(1)	

Volume	Part	All Papers	SI papers	Non-SI papers	Editorial	Scientific commentaries	Feature articles	Research papers	Short communications	Teaching and education	Cryocrystallography papers	Computer programs	CIF applications	Laboratory notes	Crystallographers	Addenda and errata	Special Issue
47	4	2.5(41)	0.0(0)	2.5(41)	0	1.0(1)	4.0(1)	2.7(27)	0.7(3)	5.0(1)	6.0(1)	2.0(4)	0	2.0(1)	0	0.5(2)	
47	5	1.9(40)	0.0(0)	1.9(40)	0	0	0	1.4(30)	3.0(3)	0	0	4.2(6)	0	1.0(1)	0	0	
47	6	1.1(39)	0.0(0)	1.1(39)	0	0.0(1)	0	1.1(30)	0.0(1)	0	0	1.4(5)	0	1.0(1)	0	1.0(1)	
48	1	3.1(43)	0.0(0)	3.1(43)	0.0(1)	0	0	2.9(36)	2.0(1)	0	0	14.0(2)	0	0	0	0.0(3)	
48	2	1.3(35)	0.0(0)	1.3(35)	0	0	0	1.5(28)	1.0(2)	0	0	0.0(3)	0	1.0(2)	0	0	
48	3	0.8(45)	0.0(0)	0.8(45)	0.0(1)	0	0	0.7(30)	0.0(3)	0.0(1)	0	1.9(8)	0	0.0(1)	0	0.0(1)	
48	4	0.7(40)	0.0(0)	0.7(40)	0	0	0.0(1)	0.6(28)	1.5(2)	0.3(3)	0	1.0(5)	0	0.0(1)	0	0	
48	5	0.5(26)	0.0(0)	0.5(26)	0	0	0	0.4(21)	0	0	0	1.3(3)	0	0.0(2)	0	0	
48	6	0.1(54)	0.0(0)	0.1(54)	0.0(1)	0.0(2)	0	0.1(40)	0.0(3)	0.0(3)	0	0.2(4)	0	0.0(1)	0	0	

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Citation information for special issues and article categories

Values are for the average number of citations per paper with the total number of papers in the issue or category in parentheses.

Volume	Part	All Papers	SI papers	Non-SI papers	Editorial	Scientific commentaries	Essays	Topical reviews	Feature articles	Research papers	Research letters	Addenda and errata
1	1	9.6(10)	0.0(0)	9.6(10)	1.0(1)	12.0(2)	0	0	0	10.1(7)	0	0
1	2	10.4(9)	0.0(0)	10.4(9)	0.0(1)	4.0(1)	0	0	0	12.9(7)	0	0
1	3	4.6(8)	0.0(0)	4.6(8)	0.0(1)	0.0(1)	0	0	0	8.2(4)	2.0(2)	0
1	4	12.5(8)	0.0(0)	12.5(8)	0.0(1)	0.0(1)	0	0	0	7.8(4)	34.5(2)	0
1	5	4.3(12)	0.0(0)	4.3(12)	0.0(1)	0.5(2)	0	0	4.0(3)	6.5(6)	0	0
1	6	2.7(23)	0.0(0)	2.7(23)	2.0(1)	0	0	0	2.7(14)	1.7(6)	6.0(2)	0
2	1	2.1(16)	0.0(0)	2.1(16)	0.0(1)	0.3(3)	0	2.0(2)	2.8(6)	3.0(4)	0	0
2	2	5.9(18)	0.0(0)	5.9(18)	0.0(1)	0.5(2)	12.7(3)	2.5(2)	5.4(5)	7.2(5)	0	0
2	3	2.2(10)	0.0(0)	2.2(10)	6.0(1)	0.0(1)	0	0	4.0(1)	1.7(7)	0	0
2	4	2.5(10)	0.0(0)	2.5(10)	0.0(1)	0.0(1)	0	10.0(1)	0.7(3)	3.2(4)	0	0
2	5	0.8(15)	0.0(0)	0.8(15)	0.0(1)	0.0(2)	0	0	0	1.1(11)	0	0.0(1)
2	6	0.5(12)	0.0(0)	0.5(12)	1.0(1)	0.0(3)	0	0	1.0(1)	0.6(7)	0	0
3	1	0.3(10)	0.0(0)	0.3(10)	0.5(2)	0.0(1)	0	0	0.0(1)	0.3(6)	0	0
3	2	0.3(10)	0.0(0)	0.3(10)	0.0(1)	0.0(1)	0	0	0	0.3(6)	0.5(2)	0
3	3	0.0(0)	0.0(0)	0.0(0)	0	0	0	0	0	0	0	0
3	4	0.0(0)	0.0(0)	0.0(0)	0	0	0	0	0	0	0	0
3	5	0.0(0)	0.0(0)	0.0(0)	0	0	0	0	0	0	0	0
3	6	0.0(0)	0.0(0)	0.0(0)	0	0	0	0	0	0	0	0

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Citation information for special issues and article categories

Values are for the average number of citations per paper with the total number of papers in the issue or category in parentheses.

Volume	Part	All Papers	SI papers	Non-SI papers	Editorial	Lead articles	Feature articles	Research papers	Short communications	Beamlines	Letters to the editor	Teaching and education	Computer programs	Laboratory notes	Addenda and errata	Meeting reports	Obituaries	Special Issue
18	1	6.5(22)	6.5(22)	0.0(0)	0.0(1)	0	0	6.9(21)	0	0	0	0	0	0	0	0	0	Diffraction structural biology
18	2	10.1(30)	0.0(0)	10.1(30)	0	0	0	11.2(26)	4.0(3)	0	0	0	0	0	0.0(1)	0	0	
18	3	10.5(28)	11.5(11)	9.9(17)	9.0(1)	0	0	11.3(25)	2.0(2)	0	0	0	0	0	0	0	0	Radiation damage
18	4	13.2(21)	0.0(0)	13.2(21)	0	0	0	14.2(18)	5.0(1)	18.0(1)	0	0	0	0	0.0(1)	0	0	
18	5	13.1(19)	0.0(0)	13.1(19)	0	0	0	13.8(18)	0.0(1)	0	0	0	0	0	0	0	0	
18	6	5.4(18)	0.0(0)	5.4(18)	0	0	0	6.1(15)	7.0(1)	0	0	0	0	0	0.0(1)	0	0.0(1)	
19	1	10.2(19)	0.0(0)	10.2(19)	0	0	0	11.4(15)	4.0(2)	15.0(1)	0	0	0	0	0.0(1)	0	0	
19	2	10.4(20)	0.0(0)	10.4(20)	0	0	0	9.2(17)	0	0	0	0	26.0(2)	0.0(1)	0	0	0	
19	3	18.7(25)	0.0(0)	18.7(25)	0	0	0	10.6(17)	8.0(3)	65.0(4)	0	0	4.0(1)	0	0	0	0	
19	4	10.5(28)	0.0(0)	10.5(28)	0	0	0	8.2(26)	0	40.0(2)	0	0	0	0	0	0	0	
19	5	11.0(24)	0.0(0)	11.0(24)	0	0	0	10.9(21)	0.0(1)	6.0(1)	0	0	30.0(1)	0	0	0	0	
19	6	10.2(31)	6.9(12)	12.2(19)	3.0(1)	0	0	9.7(28)	0	40.0(1)	0	0	0	0	0	0	0.0(1)	Q2xafs workshop
20	1	5.2(28)	8.7(7)	4.0(21)	0	0	0	5.7(23)	4.7(3)	0	0	0	1.0(1)	0	0.0(1)	0	0	Radiation damage
20	2	4.2(25)	0.0(0)	4.2(25)	0.0(1)	0	0	3.7(21)	5.0(1)	21.0(1)	0	0	0	0	0	0	0.0(1)	
20	3	5.8(16)	0.0(0)	5.8(16)	0	0	0	6.1(15)	0	0	0	0	1.0(1)	0	0	0	0	
20	4	6.3(21)	0.0(0)	6.3(21)	0	0	0	4.8(16)	1.5(2)	17.7(3)	0	0	0	0	0	0	0	
20	5	5.2(20)	0.0(0)	5.2(20)	0	0	0	5.1(16)	10.5(2)	0	0.0(1)	0	0	0.0(1)	0	0	0	
20	6	2.5(39)	2.5(39)	0.0(0)	0	0	0	2.5(39)	0	0	0	0	0	0	0	0	0	Diffraction structural biology
21	1	3.7(41)	0.0(0)	3.7(41)	0	0	0	4.1(34)	2.0(2)	2.5(4)	0	0	0	0	0	0.0(1)	0	
21	2	2.5(22)	0.0(0)	2.5(22)	0	0	0	2.6(17)	2.5(2)	2.0(1)	0	0	1.0(1)	4.0(1)	0	0	0	
21	3	2.8(25)	0.0(0)	2.8(25)	0	0	0	3.1(20)	3.0(1)	2.5(2)	0.0(1)	0	0	0	0.0(1)	0	0	

Volume	Part	All Papers	SI papers	Non-SI papers	Editorial	Lead articles	Feature articles	Research papers	Short communications	Beamlines	Letters to the editor	Teaching and education	Computer programs	Laboratory notes	Addenda and errata	Meeting reports	Obituaries	Special Issue
21	4	2.5(28)	0.0(0)	2.5(28)	0	0	7.0(1)	2.5(21)	1.5(2)	3.5(2)	0.5(2)	0	0	0	0	0	0	
21	5	5.0(41)	6.4(23)	3.1(18)	0	4.0(1)	0	5.4(36)	0	0.0(2)	0	0	5.0(1)	1.0(1)	0	0	0	Diffraction-limited storage rings
21	6	1.9(23)	0.0(0)	1.9(23)	0	0	0	1.4(19)	3.5(2)	3.0(1)	0	0	6.0(1)	0	0	0	0	
22	1	1.8(29)	0.0(0)	1.8(29)	0.0(1)	0	0	1.3(24)	1.0(1)	6.3(3)	0	0	0	0	0	0	0	
22	2	2.2(31)	4.7(9)	1.1(22)	0	1.5(2)	0	2.4(25)	0.5(2)	2.0(1)	0	0	0	0	0.0(1)	0	0	Radiation damage
22	3	3.3(56)	5.3(27)	1.5(29)	0	0	0	3.3(49)	0	5.3(3)	0	0	6.0(1)	0.0(1)	0.0(2)	0	0	Free-electron lasers
22	4	0.8(33)	0.0(0)	0.8(33)	0	0	4.0(1)	0.6(28)	0.0(1)	3.0(2)	0	1.0(1)	0	0	0	0	0	
22	5	0.2(27)	0.0(0)	0.2(27)	0	0	0	0.1(18)	0.3(3)	0.3(3)	0.5(2)	0	0.0(1)	0	0	0	0	
22	6	0.3(28)	0.0(0)	0.3(28)	0.0(1)	0	0.0(1)	0.1(20)	1.5(2)	1.3(3)	0	0	0	0.0(1)	0	0	0	