

# 2022 Journal Performance Data for: JOURNAL OF APPLIED CRYSTALLOGRAPHY

ISSN

1600-5767

EISSN

1600-5767

JCR ABBREVIATION

J APPL CRYSTALLOGR

ISO ABBREVIATION

J. Appl. Crystallogr.

## Journal Information

EDITION

Science Citation Index  
Expanded (SCIE)

CATEGORY

CHEMISTRY,  
MULTIDISCIPLINARY - SCIE  
CRYSTALLOGRAPHY - SCIE

LANGUAGES

English

REGION

ENGLAND

1ST ELECTRONIC JCR YEAR

1997

## Publisher Information

PUBLISHER

INT UNION  
CRYSTALLOGRAPHY

ADDRESS

2 ABBEY SQ, CHESTER CH1  
2HU, ENGLAND

PUBLICATION FREQUENCY

6 issues/year

# Journal's Performance

## Journal Impact Factor

The Journal Impact Factor (JIF) is a journal-level metric calculated from data indexed in the Web of Science Core Collection. It should be used with careful attention to the many factors that influence citation rates, such as the volume of publication and citations characteristics of the subject area and type of journal. The Journal Impact Factor can complement expert opinion and informed peer review. In the case of academic evaluation for tenure, it is inappropriate to use a journal-level metric as a proxy measure for individual researchers, institutions, or articles. [Learn more](#)

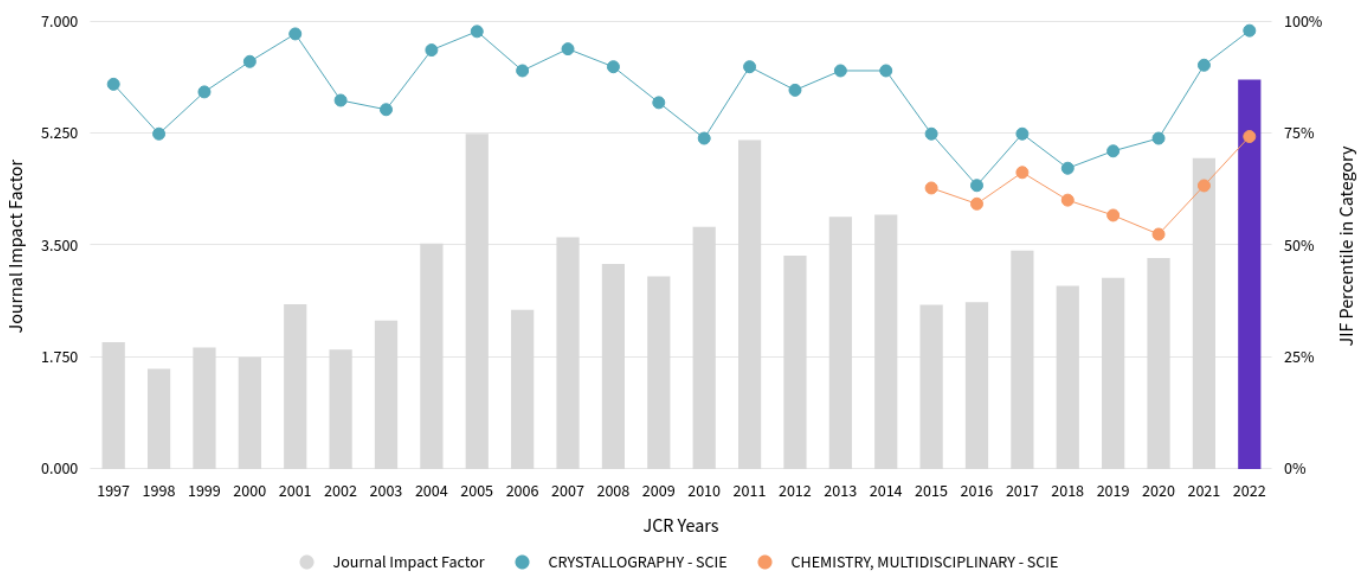
2022 JOURNAL IMPACT FACTOR

6.1

2022 JOURNAL IMPACT FACTOR WITHOUT SELF CITATIONS

5.9

## Journal Impact Factor Trend 2022



Journal Impact Factor is calculated using the following metrics





$$\frac{\text{Citations in 2022 to items published in 2020 (1,160) - 2021 (1,030)}}{\text{Number of citable items in 2020 (171) + 2021 (186)}} = \frac{2,190}{357} = 6.1$$

Journal Impact Factor without self cites is calculated using the following metrics

$$\frac{\text{Citations in 2022 to items published in 2020 (1,160) + 2021 (1,030) - Self Citations in 2022 to items published in 2020 (41) + 2021 (36)}}{\text{Number of citable items in 2020 (171) + 2021 (186)}} = \frac{2,190 - 77}{357} = 5.9$$

## Journal Impact Factor Contributing Items

### Citable Items (357)

TITLE	CITATION COUNT
<p>Mercury 4.0: from visualization to analysis, design and prediction Authors: Macrae, Clare F.;Towler, Matthew;Wood, Peter A.;Sovago, Ioana;Cottrell, Simon J.;Galek, Peter T. A.;McCabe, Patrick;Pidcock, Elna;Platings, Michael;Shields, Greg P.; et al. Volume: 53 Accession number: WOS:000512316900026 Document Type: Article</p>	766 
<p>CrystalExplorer: a program for Hirshfeld surface analysis, visualization and quantitative analysis o molecular crystals Authors: Spackman, Peter R.;Turner, Michael J.;McKinnon, Joshua J.;Wolff, Stephen K.;Grimwood, Daniel J.;Jayatilaka, Dylan;Spackman, Mark A. Volume: 54 Accession number: WOS:000659339200029 Document Type: Article</p>	506 
<p>ATSAS 3.0: expanded functionality and new tools for small-angle scattering data analysis Authors: Manalastas-Cantos, Karen;Borges, Clemente;Jeffries, Cy M.;Svergun, Dmitri, I;Franke, Daniel;Konarev, Petr, V;Hajizadeh, Nelly R.;Kikhney, Alexey G.;Petoukhov, Maxim, V;Molodenskiy, Dmitry S.; et al. Volume: 54 Accession number: WOS:000613988600036 Document Type: Article</p>	125 
<p>Validation of the Crystallography Open Database using the Crystallographic Information Framework Authors: Vaitkus, Antanas;Merkys, Andrius;Grazulis, Saulius Volume: 54 Accession number: WOS:000637331900028 Document Type: Article</p>	61 
<p>X-Seed 4: updates to a program for small-molecule supramolecular crystallography Authors: Barbour, Leonard J. Volume: 53 Accession number: WOS:000558738200027 Document Type: Article</p>	29

Showing 1-5 rows of 357 total (use export in the relevant section to download the full table)

## Journal Impact Factor Contributing Items

### Citing Sources (441)

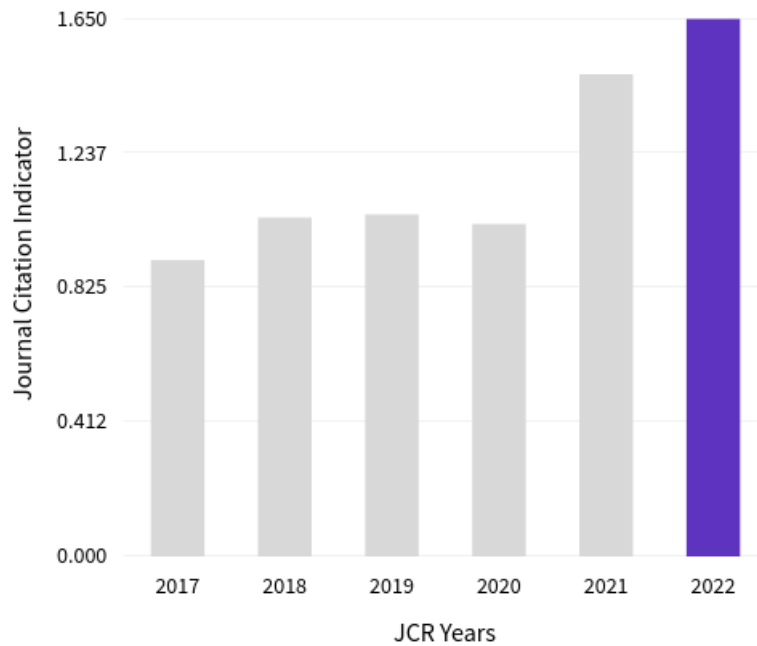
SOURCE NAME	COUNT
JOURNAL OF MOLECULAR STRUCTURE	139
ACTA CRYSTALLOGRAPHICA SECTION E-CRYSTALLOGRAPHIC COMMUNICATIONS	135
CRYSTENGGCOMM	90
JOURNAL OF APPLIED CRYSTALLOGRAPHY	77
CRYSTAL GROWTH & DESIGN	71
CRYSTALS	58
ACTA CRYSTALLOGRAPHICA SECTION C-STRUCTURAL CHEMISTRY	57
DALTON TRANSACTIONS	48
MOLECULES	48
ACTA CRYSTALLOGRAPHICA SECTION B-STRUCTURAL SCIENCE CRYSTAL ENGINEERING AND MATERIALS	32
POLYHEDRON	31
INORGANIC CHEMISTRY	30
ACS OMEGA	25
ACTA CRYSTALLOGRAPHICA SECTION D-STRUCTURAL BIOLOGY	25
NEW JOURNAL OF CHEMISTRY	24
INORGANICA CHIMICA ACTA	22
INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES	22
IUCRJ	19
POWDER DIFFRACTION	17
SCIENTIFIC REPORTS	17

Showing 1-20 rows of 441 total (use export in the relevant section to download the full table)

# Journal Citation Indicator (JCI)

1.65

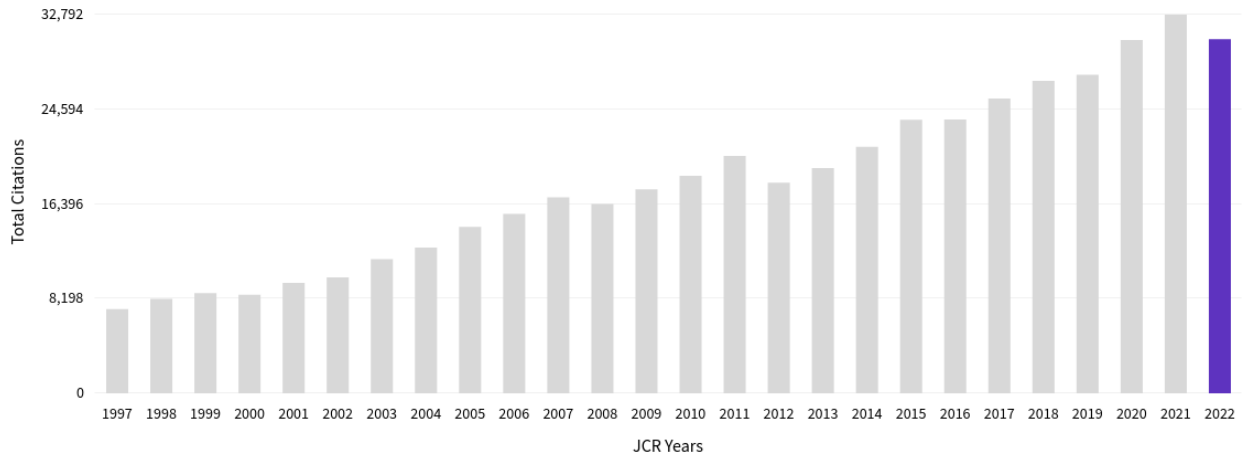
The Journal Citation Indicator (JCI) is the average Category Normalized Citation Impact (CNCI) of citable items (articles & reviews) published by a journal over a recent three year period. The average JCI in a category is 1. Journals with a JCI of 1.5 have 50% more citation impact than the average in that category. It may be used alongside other metrics to help you evaluate journals. [Learn more](#)



# Total Citations

30,675

The total number of times that a journal has been cited by all journals included in the database in the JCR year. Citations to journals listed in JCR are compiled annually from the JCR years combined database, regardless of which JCR edition lists the journal.



# Citation Distribution

The Citation Distribution shows the frequency with which items published in the year or two years prior were cited in the JCR data year (i.e., the component of the calculation of the JIF). The graph has similar functionality as the JIF Trend graph, including hover-over data descriptions for each data point, and an interactive legend where each data element's legend can be used as a toggle. You can view Articles, Reviews, or Non-Citable (other) items to the JIF numerator. [Learn more](#)

ARTICLE CITATION MEDIAN

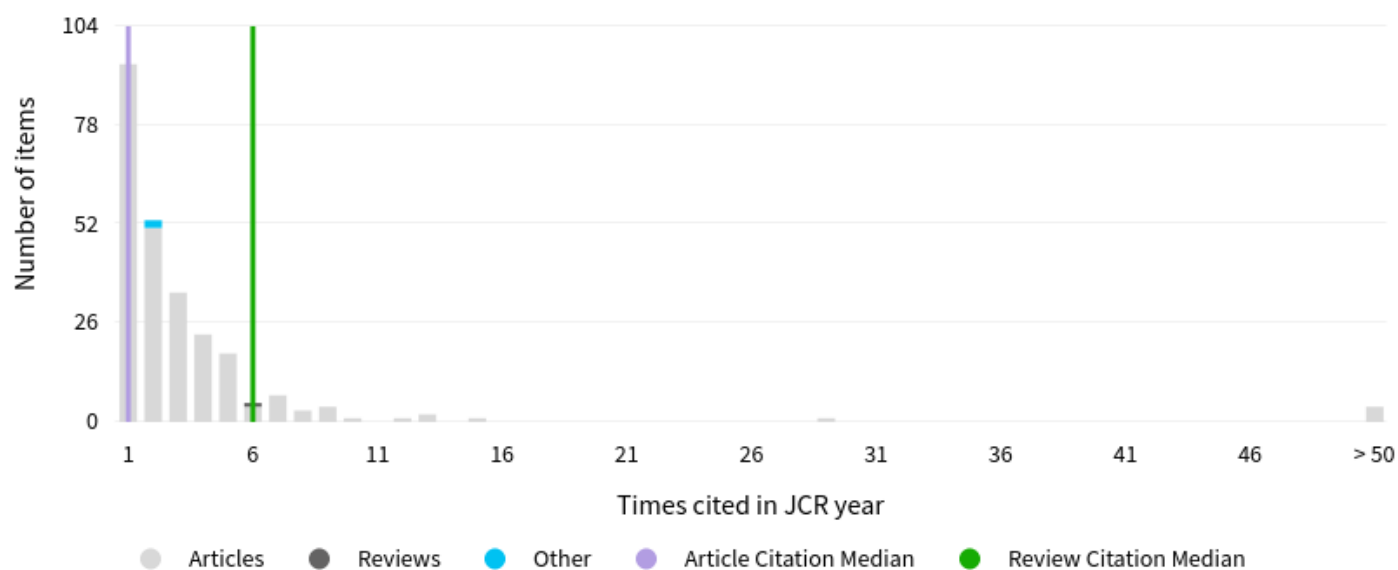
**1**

REVIEW CITATION MEDIAN

**6**

UNLINKED CITATIONS

**17**



## 0 times cited

ARTICLES

**108**

REVIEWS

**0**

OTHER

**30**

## Open Access (OA)

The data included in this tile summarizes the items published in the journal in the JCR data year and in the previous two years. This three-year set of published items is used to provide descriptive analysis of the content and community of the journal. [Learn more](#)

### Items

TOTAL CITABLE

**526**

% OF CITABLE OA

**44.11%**

CITABLE

● GOLD OPEN ACCESS

232 / 41.13%

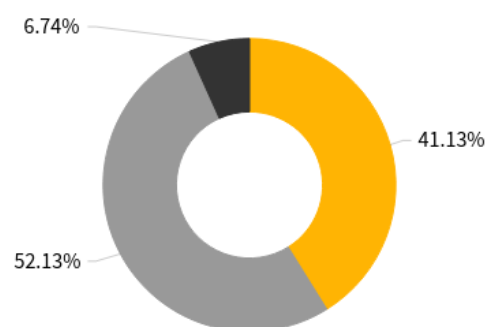
● SUBSCRIPTION OR BRONZE

294 / 52.13%

NON-CITABLE

● OTHER (NON-CITABLE ITEMS)

38 / 6.74%



### Citations\*

TOTAL CITABLE

**2,290**

% OF CITABLE OA

**80.26%**

CITABLE

● GOLD OPEN ACCESS

1,838 / 79.40%

● SUBSCRIPTION OR BRONZE

452 / 19.52%

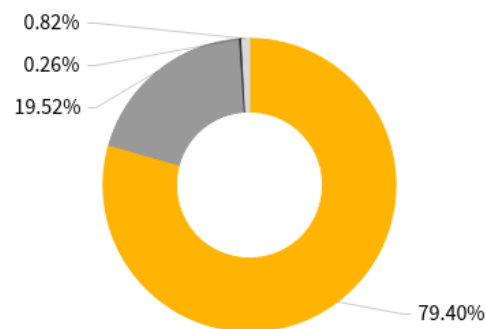
NON-CITABLE

● OTHER (NON-CITABLE ITEMS)

6 / 0.26%

● UNLINKED CITATIONS

19 / 0.82%



\* Citations in 2022 to items published in (2020-2022)

## Rank by Journal Impact factor

Journals within a category are sorted in descending order by Journal Impact Factor (JIF) resulting in the Category Ranking below. A separate rank is shown for each category in which the journal is listed in JCR. Data for the most recent year is presented at the top of the list, with other years shown in reverse chronological order. [Learn more](#)

### EDITION

Science Citation Index Expanded (SCIE)

### CATEGORY

CHEMISTRY, MULTIDISCIPLINARY

**46/178**

JCR YEAR	JIF RANK	QUART ILE	JIF PERCENTILE	
2022	46/178	Q2	74.4	
2021	66/179	Q2	63.41	
2020	85/178	Q2	52.53	
2019	77/177	Q2	56.78	
2018	69/172	Q2	60.17	
2017	58/171	Q2	66.37	
2016	68/166	Q2	59.34	
2015	61/163	Q2	62.88	
2014	N/A	N/A	N/A	
2013	N/A	N/A	N/A	
2012	N/A	N/A	N/A	
2011	N/A	N/A	N/A	
2010	N/A	N/A	N/A	
2009	N/A	N/A	N/A	
2008	N/A	N/A	N/A	
2007	N/A	N/A	N/A	
2006	N/A	N/A	N/A	
2005	N/A	N/A	N/A	
2004	N/A	N/A	N/A	
2003	N/A	N/A	N/A	
2002	N/A	N/A	N/A	
2001	N/A	N/A	N/A	
2000	N/A	N/A	N/A	
1999	N/A	N/A	N/A	
1998	N/A	N/A	N/A	
1997	N/A	N/A	N/A	

### EDITION

Science Citation Index Expanded (SCIE)

### CATEGORY

CRYSTALLOGRAPHY

**1/26**

JCR YEAR	JIF RANK	QUART ILE	JIF PERCENTILE	
2022	1/26	Q1	98.1	
2021	3/26	Q1	90.38	
2020	7/25	Q2	74.00	
2019	8/26	Q2	71.15	
2018	9/26	Q2	67.31	
2017	7/26	Q2	75.00	
2016	10/26	Q2	63.46	
2015	7/26	Q2	75.00	
2014	3/23	Q1	89.13	
2013	3/23	Q1	89.13	
2012	4/23	Q1	84.78	
2011	3/25	Q1	90.00	
2010	7/25	Q2	74.00	
2009	5/25	Q1	82.00	
2008	3/25	Q1	90.00	
2007	2/25	Q1	94.00	
2006	3/23	Q1	89.13	
2005	1/24	Q1	97.92	
2004	2/24	Q1	93.75	
2003	5/23	Q1	80.43	
2002	4/20	Q1	82.50	
2001	1/19	Q1	97.37	
2000	2/17	Q1	91.18	
1999	3/16	Q1	84.38	
1998	5/18	Q2	75.00	
1997	3/18	Q1	86.11	

## Rank by Journal Citation Indicator (JCI)

Journals within a category are sorted in descending order by Journal Citation Indicator (JCI) resulting in the Category Ranking below. A separate rank is shown for each category in which the journal is listed in JCR. Data for the most recent year is presented at the top of the list, with other years shown in reverse chronological order. [Learn more](#)

### CATEGORY

CHEMISTRY, MULTIDISCIPLINARY

**25/230**

JCR YEAR	JCI RANK	QUART ILE	JCI PERCENTILE	
2022	25/230	Q1	89.35	
2021	25/224	Q1	89.06	
2020	41/219	Q1	81.51	
2019	38/215	Q1	82.56	
2018	45/212	Q1	79.01	
2017	51/205	Q1	75.37	

### CATEGORY

CRYSTALLOGRAPHY

**1/33**

JCR YEAR	JCI RANK	QUART ILE	JCI PERCENTILE	
2022	1/33	Q1	98.48	
2021	2/33	Q1	95.45	
2020	7/33	Q1	80.30	
2019	6/33	Q1	83.33	
2018	9/32	Q2	73.44	
2017	9/31	Q2	72.58	

# Citation network

## Cited Half-life

13.4 years

The Cited Half-Life is the median age of the items in this journal that were cited in the JCR year. Half of a journal's cited items were published more recently than the cited half-life.

TOTAL NUMBER OF CITES

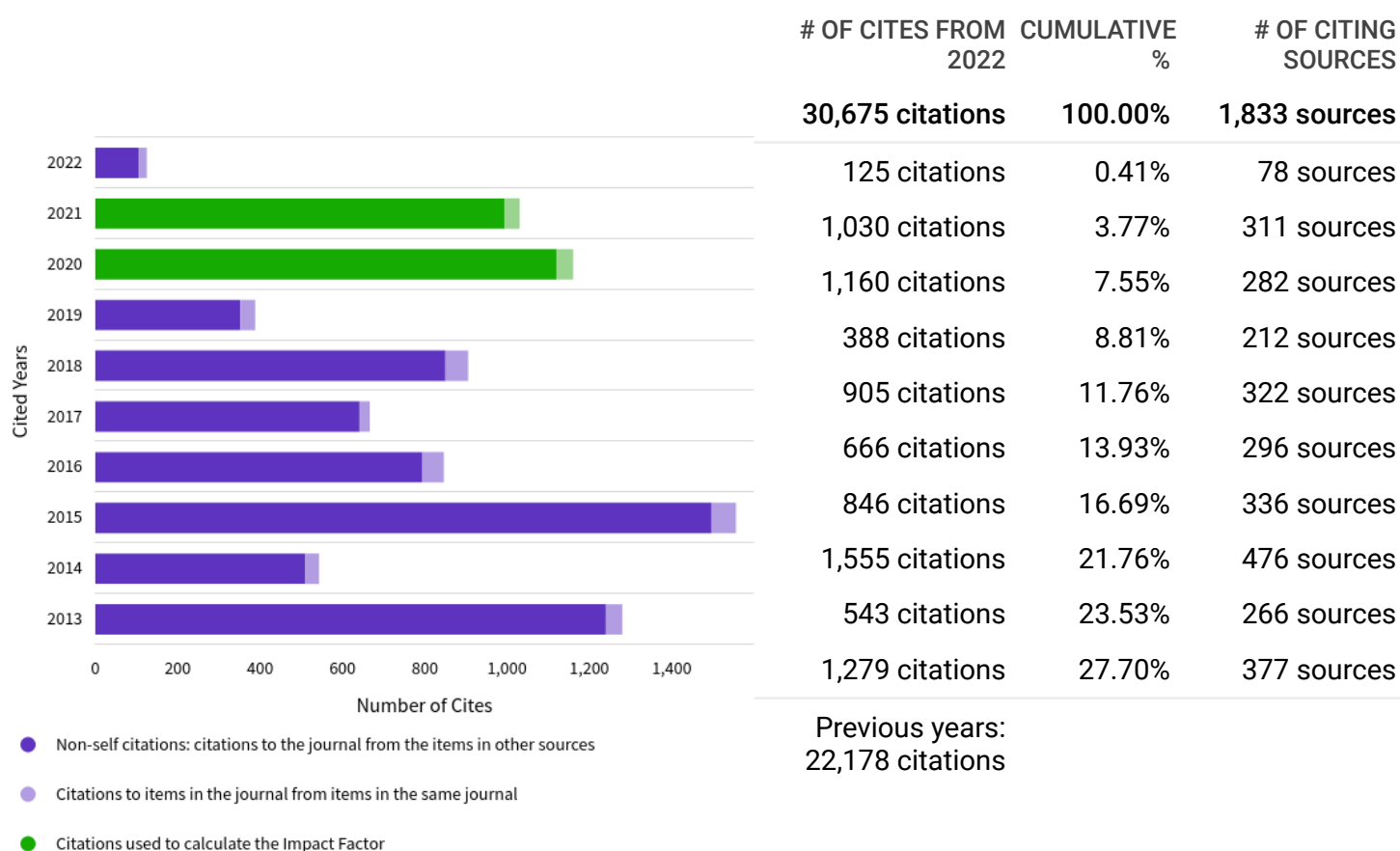
30,675

NON-SELF CITATIONS

29,902

SELF CITATIONS

773



## Citing titles in all years

### JOURNAL OF APPLIED CRYSTALLOGRAPHY

	SOURCE NAME	COUNT
	All Others	599
1	Journal of Molecular Structure	851
2	INORGANIC CHEMISTRY	789
3	JOURNAL OF APPLIED CRYSTALLOGRAPHY	773
4	DALTON TRANSACTIONS	567
5	ACTA CRYSTALLOGRAPHICA SECTION E-STRUCTURE REPORTS ONLINE	535
6	CRYSTAL GROWTH & DESIGN	465
7	PHYSICAL REVIEW B	464
8	MOLECULES	452
9	Nature Communications	427
10	CRYSTENGGCOMM	426
11	Crystals	407
12	CHEMISTRY OF MATERIALS	332
13	Journal of Alloys and Compounds	324
14	POLYHEDRON	313
15	JOURNAL OF SOLID STATE CHEMISTRY	299
16	Journal of Physical Chemistry C	293
17	Materials	263
18	INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES	262
19	ZEITSCHRIFT FUR KRISTALLOGRAPHIE-NEW CRYSTAL STRUCTURES	260
20	Scientific Reports	248

Showing 1 - 20 rows of 1212 total (use export in the relevant section to download the full table)

# Citing Half-life

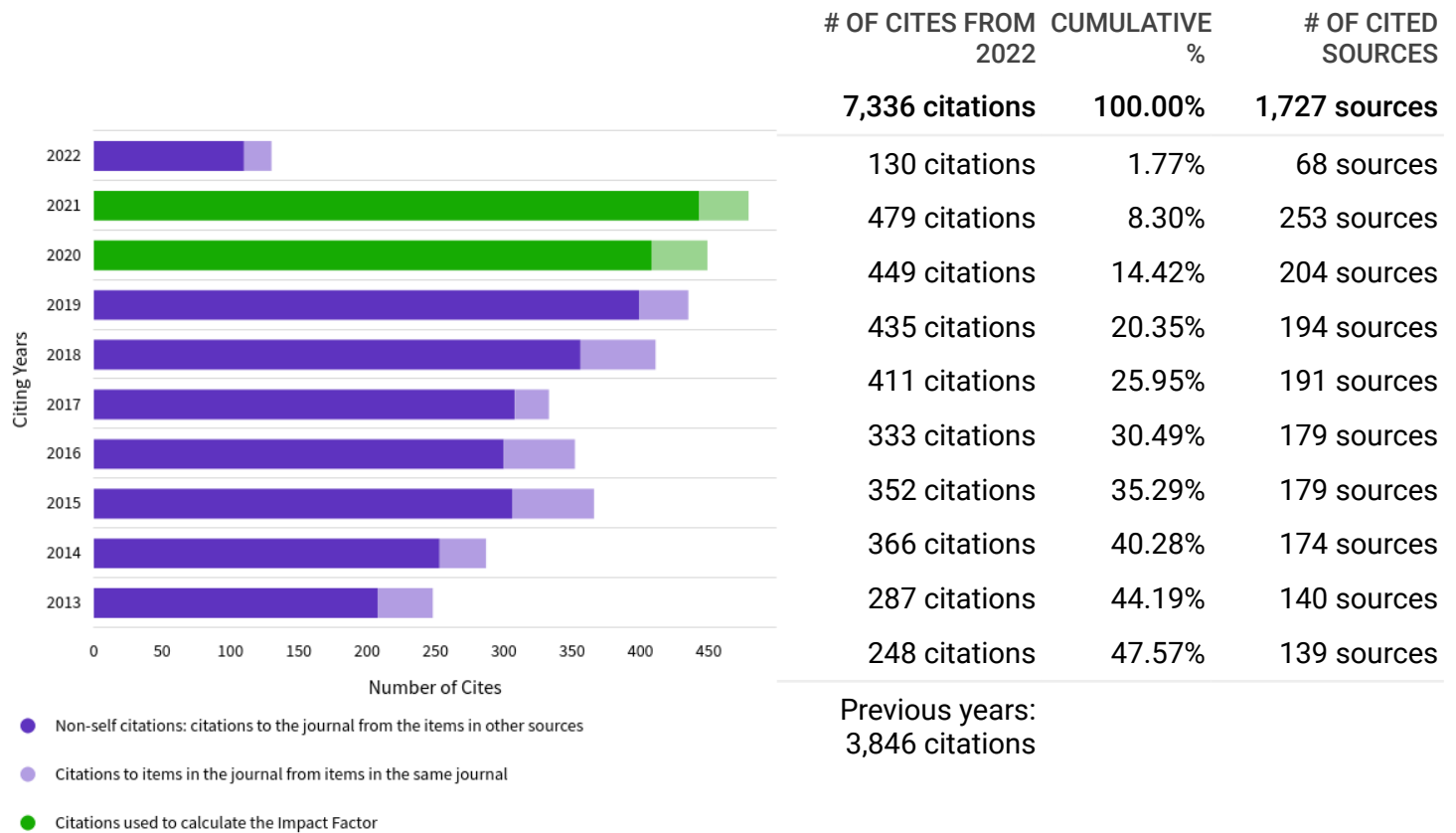
## 10.7 years

The Citing Half-Life is the median age of items in other publications cited by this journal in the JCR year.

TOTAL NUMBER OF CITES  
7,336

NON-SELF CITATIONS  
6,563

SELF CITATIONS  
773



## Cited titles in all years

### JOURNAL OF APPLIED CRYSTALLOGRAPHY

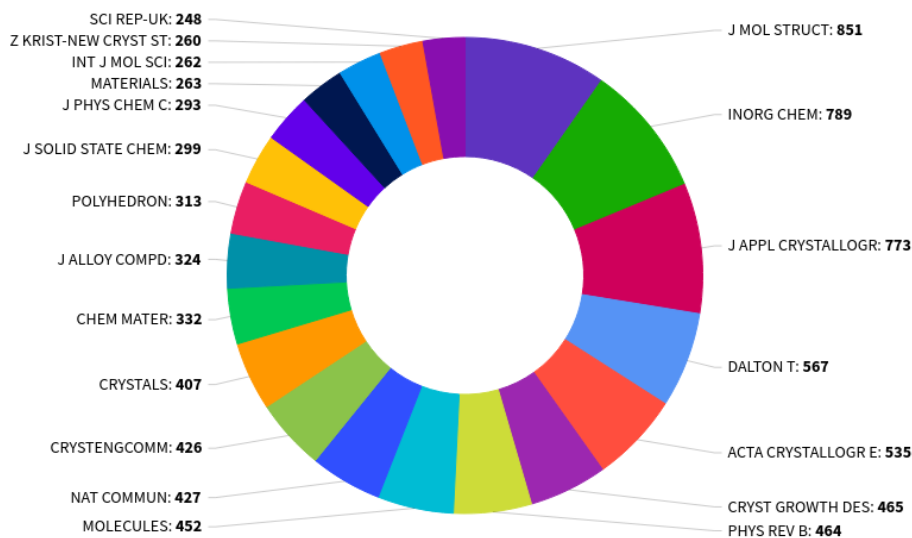
	SOURCE NAME	COUNT
	All Others	1,131
1	JOURNAL OF APPLIED CRYSTALLOGRAPHY	773
2	PHYSICAL REVIEW B	278
3	Acta Crystallographica A-Foundation and Advances	147
4	PHYSICAL REVIEW LETTERS	130
5	JOURNAL OF SYNCHROTRON RADIATION	106
6	Acta Crystallographica Section D-Structural Biology	100
7	NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION A-ACCELERATORS SPECTROMETERS DETECTORS AND ASSOCIATED EQUIPMENT	91
8	NATURE	88
9	Scientific Reports	87
10	REVIEW OF SCIENTIFIC INSTRUMENTS	79
11	JOURNAL OF APPLIED PHYSICS	76
12	ACTA MATERIALIA	74
13	IUCrJ	73
14	Nature Communications	70
15	PHYSICA B-CONDENSED MATTER	69
16	JOURNAL OF CHEMICAL EDUCATION	61
17	JOURNAL OF PHYSICS-CONDENSED MATTER	60
18	SCIENCE	59
19	APPLIED PHYSICS LETTERS	58
20	ULTRAMICROSCOPY	55

Showing 1 - 20 rows of 424 total (use export in the relevant section to download the full table)

# Journal Citation Relationships

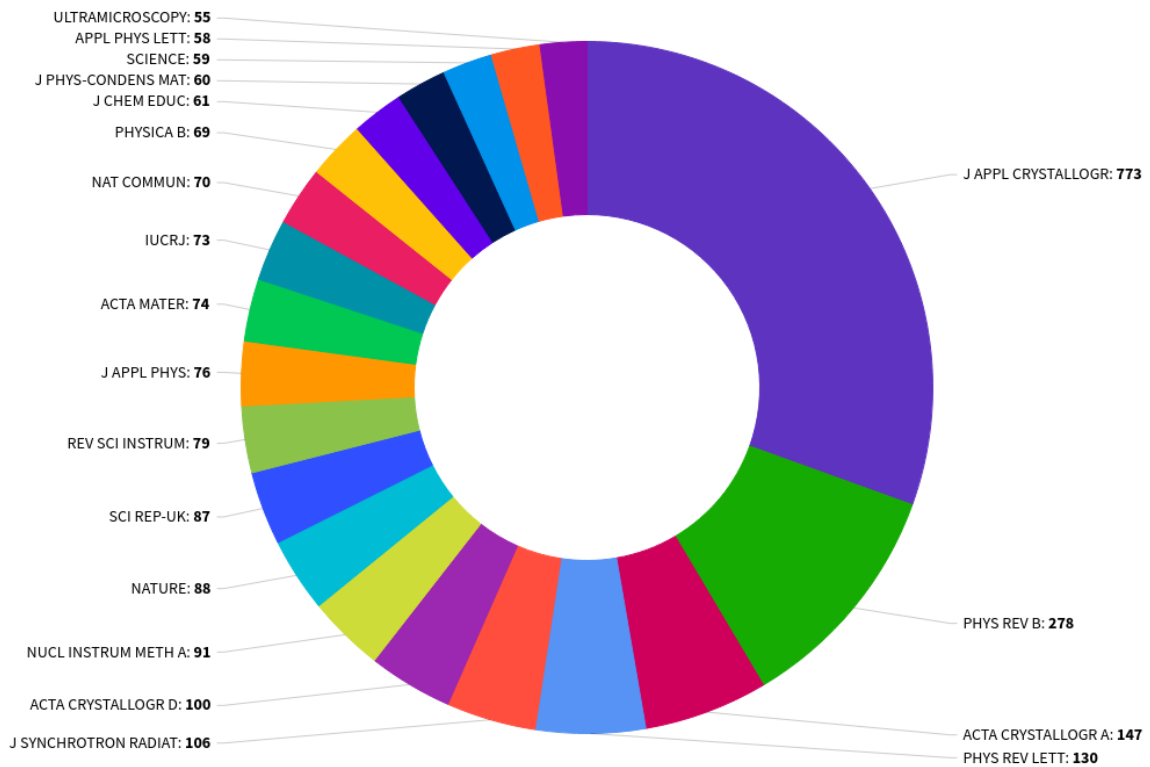
## Cited Data

Top 20 journals citing J APPL CRYSTALLOGR by number of citations



# Citing Data

Top 20 journals cited by J APPL CRYSTALLOGR by number of citations



# Content metrics

## Source data

This tile shows the breakdown of document types published by the journal. Citable Items are Articles and Reviews. For the purposes of calculating JIF, a JCR year considers the publications of that journal in the two prior years. [Learn more](#)

### 169 total citable items

	ARTICLES	REVIEWS	COMBINED (C)	OTHER DOCUMENT TYPES (O)	PERCENTAGE
NUMBER IN JCR YEAR 2022 (A)	169	0	169	6	97%
NUMBER OF REFERENCES (B)	7,300	0	7,300	36	100%
RATIO (B/A)	43.2	N/A	43.2	6.0	

## Average JIF Percentile

The Average Journal Impact Factor Percentile takes the sum of the JIF Percentile rank for each category under consideration, then calculates the average of those values. [Learn more](#)

ALL CATEGORIES AVERAGE

**86.3**

EDITION

Science Citation Index Expanded

CRYSTALLOGRAPHY









**98.1**

CHEMISTRY, MULTIDISCIPLINARY

**74.4**

## Contributions by Organizations









Organizations that have contributed the most papers to the journal in the most recent three-year period. [Learn more](#)

RANK	ORGANIZATION	COUNT	
1	UNITED STATES DEPARTMENT OF ENERGY (DOE)	81	
2	HELMHOLTZ ASSOCIATION	50	
3	CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE (CNRS)	45	
4	UDICE-FRENCH RESEARCH UNIVERSITIES	36	
5	EUROPEAN SYNCHROTRON RADIATION FACILITY (ESRF)	27	
6	RUSSIAN ACADEMY OF SCIENCES	25	
7	SWISS FEDERAL INSTITUTES OF TECHNOLOGY DOMAIN	22	
8	UK RESEARCH & INNOVATION (UKRI)	20	

Showing 1 - 8 rows of 572 total (use export in the relevant section to download the full table)

## Contributions by country/region

Countries or Regions that have contributed the most papers to the journal in the most recent three-year period. [Learn more](#)

RANK	COUNTRY/REGION	COUNT	
1	USA	142	
2	GERMANY (FED REP GER)	128	
3	France	89	
4	England	65	
5	Japan	49	
6	CHINA MAINLAND	43	
7	Australia	42	
8	Sweden	33	

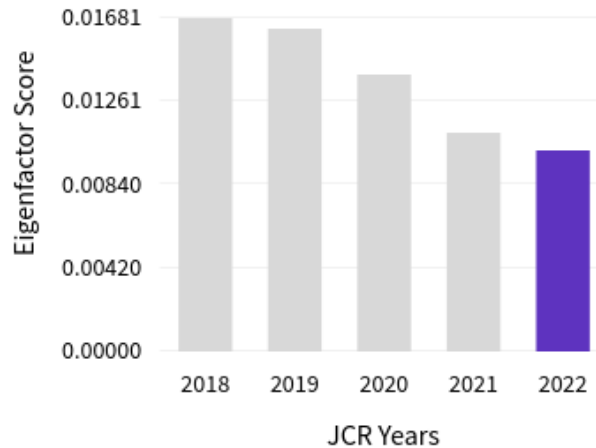
Showing 1 - 8 rows of 54 total (use export in the relevant section to download the full table)

# Additional metrics

## Eigenfactor score

**0.01013**

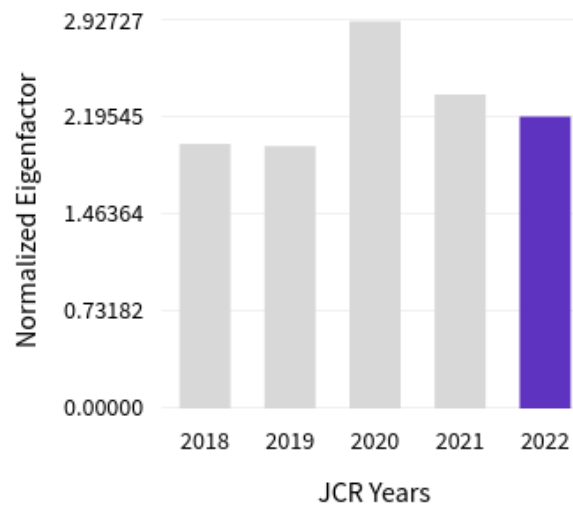
The Eigenfactor Score is a reflection of the density of the network of citations around the journal using 5 years of cited content as cited by the Current Year. It considers both the number of citations and the source of those citations, so that highly cited sources will influence the network more than less cited sources. The Eigenfactor calculation does not include journal self-citations. [Learn more](#)



## Normalized Eigenfactor

**2.20664**

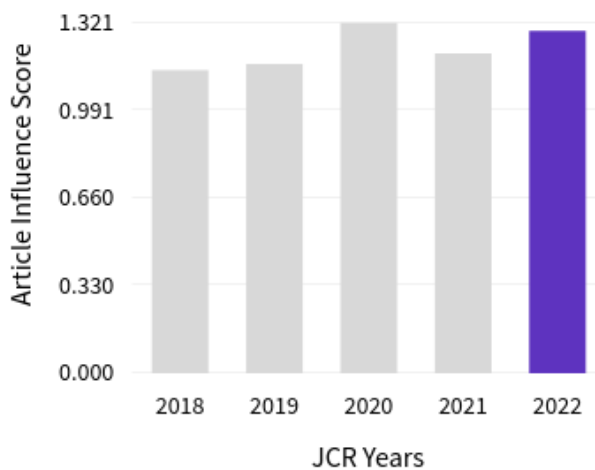
The Normalized Eigenfactor Score is the Eigenfactor score normalized, by rescaling the total number of journals in the JCR each year, so that the average journal has a score of 1. Journals can then be compared and influence measured by their score relative to 1. [Learn more](#)



## Article influence score

**1.291**

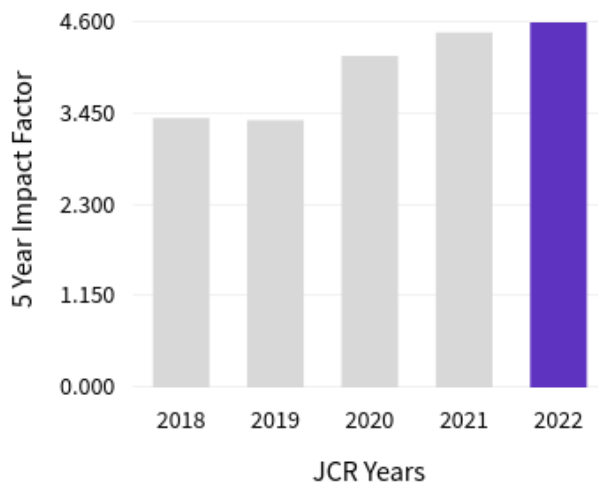
The Article Influence Score normalizes the Eigenfactor Score according to the cumulative size of the cited journal across the prior five years. The mean Article Influence Score for each article is 1.00. A score greater than 1.00 indicates that each article in the journal has above-average influence. [Learn more](#)



# 5 year Impact Factor

## 4.6

The 5-year Impact Factor is the average number of times articles from the journal published in the past five years have been cited in the JCR year. It is calculated by dividing the number of citations in the JCR year by the total number of articles published in the five previous years.



5 year Impact Factor calculation

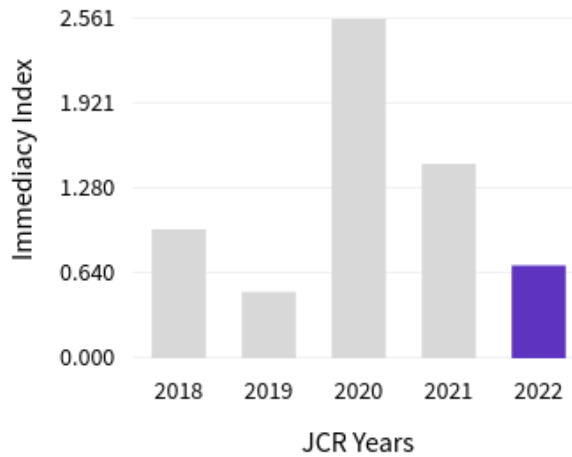
Citations in 2022 to items published in [2017-2021] (4,149)				
<hr/>				
Number of citable items in [2017-2021] (894)	=	$\frac{4,149}{894}$	=	4.6

# Immediacy Index

0.7

The Immediacy Index is the count of citations in the current year to the journal that reference content in this same year. Journals that have a consistently high Immediacy Index attract citations rapidly.

[Learn more](#)



Immediacy Index calculation

Cites in 2022 to items published in 2022	125	
<hr/>		125 / 169 = 0.7
Number of items published in 2022	169	