2022 Journal Performance Data for: JOURNAL OF SYNCHROTRON RADIATION

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0909-0495

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JCR ABBREVIATION
J SYNCHROTRON RADIAT

ISO ABBREVIATION
J. Synchrot. Radiat.

Journal Information

EDITION
Science Citation Index Expanded (SCIE)

CATEGORY
PHYSICS, APPLIED - SCIE
OPTICS - SCIE
INSTRUMENTS & INSTRUMENTATION - 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

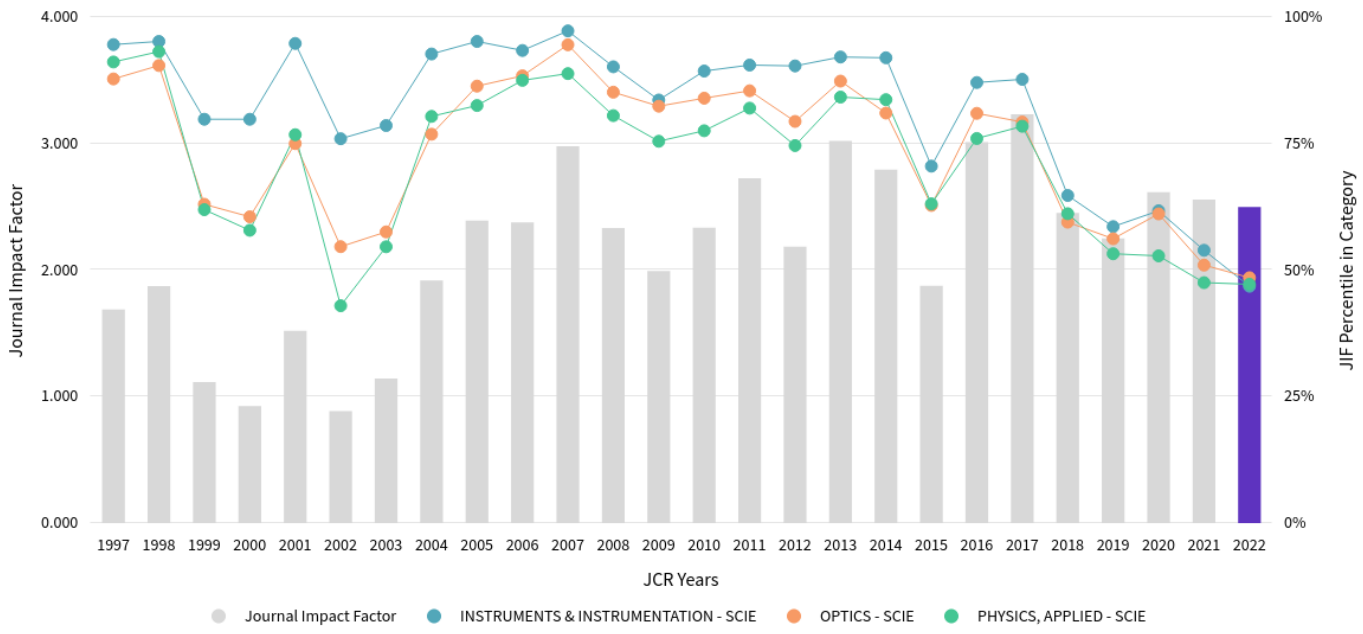
Journal's Performance

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	2022 JOURNAL IMPACT FACTOR WITHOUT SELF CITATIONS
2.5	2.2

Journal Impact Factor Trend 2022



Journal Impact Factor is calculated using the following metrics

$$\frac{\text{Citations in 2022 to items published in 2020 (541) - 2021 (459)}}{\text{Number of citable items in 2020 (201) + 2021 (207)}} = \frac{1{,}000}{408} = 2.5$$

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

$$\frac{\text{Citations in 2022 to items published in 2020 (541) + 2021 (459) - Self Citations in 2022 to items published in 2020 (49) + 2021 (66)}}{\text{Number of citable items in 2020 (201) + 2021 (207)}} = \frac{1{,}000 - 115}{408} = 2.2$$

Journal Impact Factor Contributing Items

Citable Items (408)

TITLE	CITATION COUNT
New tools for calibrating diffraction setups Authors: Kieffer, J.;Valls, V.;Blanc, N.;Hennig, C. Volume: 27 Accession number: WOS:000519725000036 Document Type: Article	24
The XFM beamline at the Australian Synchrotron Authors: Howard, Daryl L.;Divitcos, Jim;Basten, Noel;Adamson, Luke;Fiala, Tom;Sammut, Letizia;Paterson, David J.;de Jonge, Martin D.;Afshar, Nader;Ryan, Chris G.; et al. Volume: 27 Accession number: WOS:000562741000039 Document Type: Article	22
Beamline B21: high-throughput small-angle X-ray scattering at Diamond Light Source Authors: Cowieson, Nathan P.;Sutter, John P.;Tully, Mark D.;Terrill, Nick J.;Rambo, Robert P.;Edwards-Gayle, Charlotte J. C.;Inoue, Katsuaki;Khunti, Nikul S.;Doutch, James;Williams, Eugene; et al. Volume: 27 Accession number: WOS:000562741000038 Document Type: Article	21
ID15A at the ESRF - a beamline for high speed operando X-ray diffraction, diffraction tomography and total scattering Authors: Vaughan, Gavin B. M.;Kieffer, Jerome;Kimber, Simon A. J.;Martel, Keith;Morawe, Christian;Mottin, Denis;Papillon, Emanuel;Petitdemange, Sebastien;Vamvakeros, Antonios;Vieux, Jean-Phillipe; et al. Volume: 27 Accession number: WOS:000519725000031 Document Type: Article	20
HIPPIE: a new platform for ambient-pressure X-ray photoelectron spectroscopy at the MAX IV Laboratory Authors: Zhu, Suyun;Tissot, Heloise;Weissenrieder, Jonas;Hagman, Benjamin;Gustafson, Johan;Kaya, Sarp;Lindgren, Fredrik;Kallquist, Ida;Maibach, Julia;Hahlin, Maria; et al. Volume: 28 Accession number: WOS:000626355600029 Document Type: Article	19

Showing 1-5 rows of 408 total (use export in the relevant section to download the full table)

Journal Impact Factor Contributing Items

Citing Sources (349)

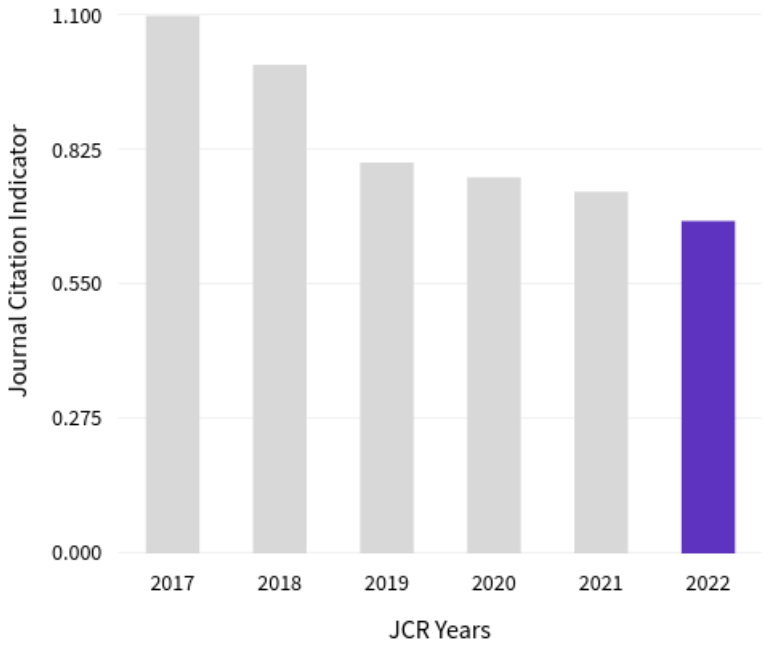
SOURCE NAME	COUNT
JOURNAL OF SYNCHROTRON RADIATION	115
OPTICS EXPRESS	31
JOURNAL OF APPLIED CRYSTALLOGRAPHY	21
NATURE COMMUNICATIONS	21
REVIEW OF SCIENTIFIC INSTRUMENTS	21
PHYSICAL REVIEW B	19
NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION A-ACCELERATORS SPECTROMETERS DETECTORS AND ASSOCIATED EQUIPMENT	15
JOURNAL OF INSTRUMENTATION	14
JOURNAL OF PHYSICAL CHEMISTRY C	11
NANOMATERIALS	11
PHYSICAL CHEMISTRY CHEMICAL PHYSICS	11
PHYSICAL REVIEW RESEARCH	11
PHYSICS REPORTS-REVIEW SECTION OF PHYSICS LETTERS	11
SCIENTIFIC REPORTS	11
ACS CATALYSIS	10
ACTA OPTICA SINICA	10
DEVELOPMENTS IN X-RAY TOMOGRAPHY XIV	10
IUCRJ	10
SENSORS	10
ACTA CRYSTALLOGRAPHICA SECTION D-STRUCTURAL BIOLOGY	9

Showing 1-20 rows of 349 total (use export in the relevant section to download the full table)

Journal Citation Indicator (JCI)

0.68

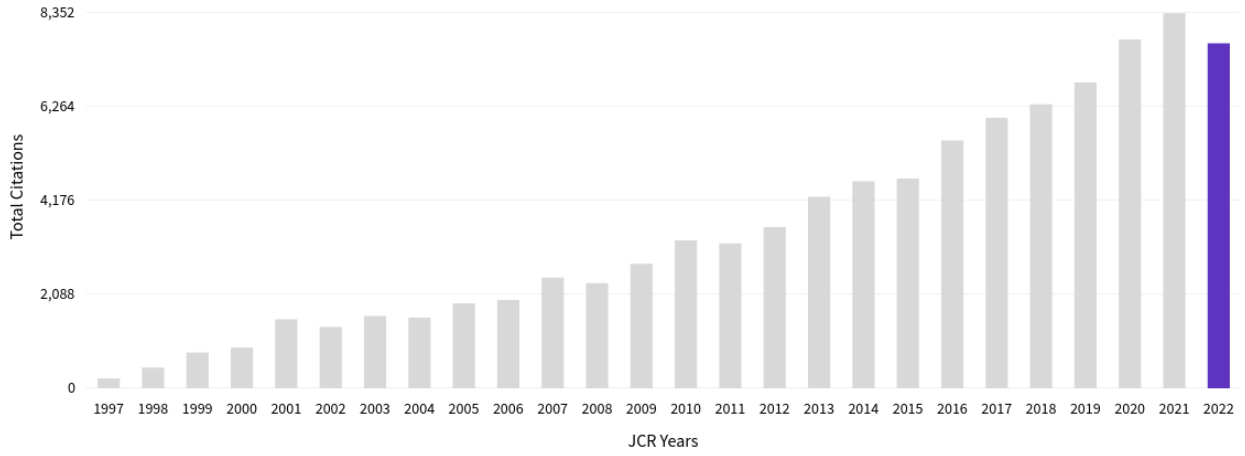
The Journal Citation Indicator (JCI) is the average Category Normalized Citation Impact (CNCI) of citable items (articles & reviews) published by a journal over a recent three year period. The average JCI in a category is 1. Journals with a JCI of 1.5 have 50% more citation impact than the average in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



Total Citations

7,684

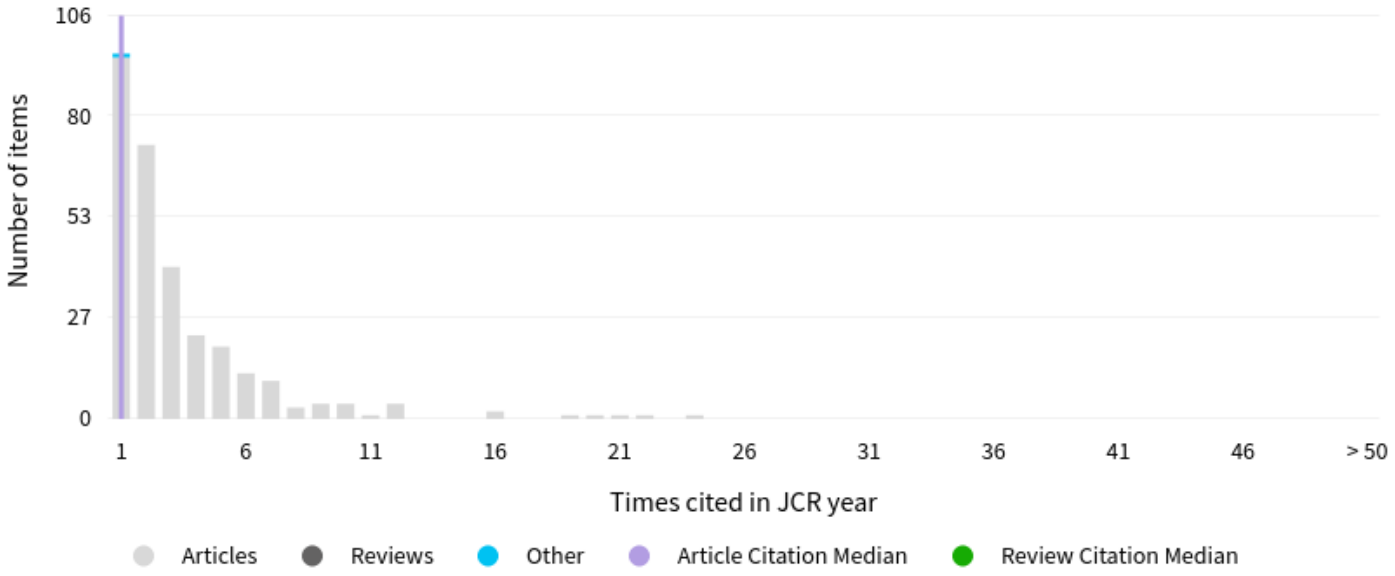
The total number of times that a journal has been cited by all journals included in the database in the JCR year. Citations to journals listed in JCR are compiled annually from the JCR years combined database, regardless of which JCR edition lists the journal.



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	REVIEW CITATION MEDIAN	UNLINKED CITATIONS
1	N/A	18



0 times cited

ARTICLES	REVIEWS	OTHER
115	0	11

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
569

% OF CITABLE OA
61.86%

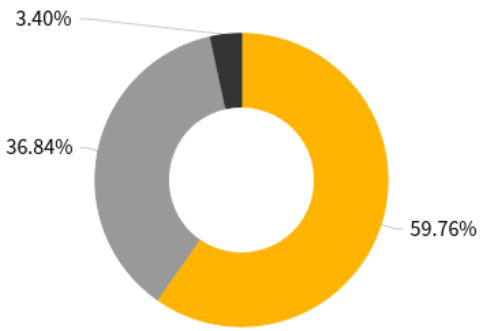
CITABLE

GOLD OPEN ACCESS
352 / 59.76%

SUBSCRIPTION OR BRONZE
217 / 36.84%

NON-CITABLE

OTHER (NON-CITABLE ITEMS)
20 / 3.40%



Citations*

TOTAL CITABLE
1,120

% OF CITABLE OA
67.41%

CITABLE

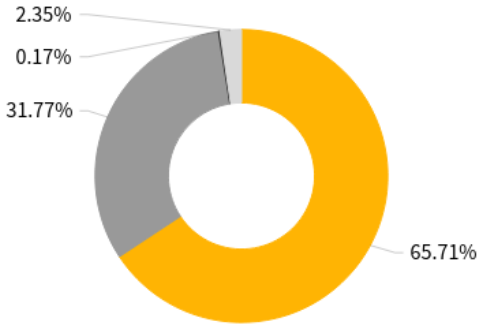
GOLD OPEN ACCESS
755 / 65.71%

SUBSCRIPTION OR BRONZE
365 / 31.77%

NON-CITABLE

OTHER (NON-CITABLE ITEMS)
2 / 0.17%

UNLINKED CITATIONS
27 / 2.35%



* 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

INSTRUMENTS & INSTRUMENTATION

34/63

JCR YEAR	JIF RANK	QUARTILE	JIF PERCENTILE
2022	34/63	Q3	46.8
2021	30/64	Q2	53.91
2020	25/64	Q2	61.72
2019	27/64	Q2	58.59
2018	22/61	Q2	64.75
2017	8/61	Q1	87.70
2016	8/58	Q1	87.07
2015	17/56	Q2	70.54
2014	5/56	Q1	91.96
2013	5/57	Q1	92.11
2012	6/57	Q1	90.35
2011	6/58	Q1	90.52
2010	7/61	Q1	89.34
2009	10/58	Q1	83.62
2008	6/56	Q1	90.18
2007	2/55	Q1	97.27
2006	4/53	Q1	93.40
2005	3/52	Q1	95.19
2004	4/48	Q1	92.71
2003	11/49	Q1	78.57
2002	13/52	Q1	75.96
2001	3/48	Q1	94.79
2000	11/52	Q1	79.81
1999	11/52	Q1	79.81
1998	3/52	Q1	95.19
1997	3/46	Q1	94.57

EDITION

Science Citation Index Expanded (SCIE)

CATEGORY

OPTICS

52/100

JCR YEAR	JIF RANK	QUARTILE	JIF PERCENTILE
2022	52/100	Q3	48.5
2021	50/101	Q2	50.99
2020	39/99	Q2	61.11
2019	43/97	Q2	56.19
2018	39/95	Q2	59.47
2017	20/94	Q1	79.26
2016	18/92	Q1	80.98
2015	34/90	Q2	62.78
2014	17/87	Q1	81.03
2013	11/83	Q1	87.35
2012	17/80	Q1	79.38
2011	12/79	Q1	85.44
2010	13/78	Q1	83.97
2009	13/71	Q1	82.39
2008	10/64	Q1	85.16
2007	4/64	Q1	94.53
2006	7/56	Q1	88.39
2005	8/55	Q1	86.36
2004	13/54	Q1	76.85
2003	23/53	Q2	57.55
2002	25/54	Q2	54.63
2001	14/54	Q2	75.00
2000	23/57	Q2	60.53
1999	19/50	Q2	63.00
1998	5/47	Q1	90.43
1997	6/45	Q1	87.78

EDITION

Science Citation Index Expanded (SCIE)

CATEGORY

PHYSICS, APPLIED

85/160

JCR YEAR	JIF RANK	QUARTILE	JIF PERCENTILE
2022	85/160	Q3	47.2
2021	85/161	Q3	47.52
2020	76/160	Q2	52.81
2019	73/155	Q2	53.23
2018	58/148	Q2	61.15
2017	32/146	Q1	78.42
2016	36/148	Q1	76.01
2015	54/145	Q2	63.10
2014	24/144	Q1	83.68
2013	22/136	Q1	84.19
2012	33/128	Q2	74.61
2011	23/125	Q1	82.00
2010	27/118	Q1	77.54
2009	27/108	Q1	75.46
2008	19/95	Q1	80.53
2007	11/94	Q1	88.83
2006	11/84	Q1	87.50
2005	15/83	Q1	82.53
2004	16/79	Q1	80.38
2003	35/76	Q2	54.61
2002	41/71	Q3	42.96
2001	17/71	Q1	76.76
2000	30/70	Q2	57.86
1999	26/67	Q2	61.94
1998	5/66	Q1	93.18
1997	6/62	Q1	91.13

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

INSTRUMENTS & INSTRUMENTATION

28/76

JCR YEAR	JCI RANK	QUARTILE	JCI PERCENTILE
2022	28/76	Q2	63.82
2021	23/76	Q2	70.39
2020	23/72	Q2	68.75
2019	22/72	Q2	70.14
2018	16/70	Q1	77.86
2017	11/69	Q1	84.78

CATEGORY

OPTICS

49/119

JCR YEAR	JCI RANK	QUARTILE	JCI PERCENTILE
2022	49/119	Q2	59.24
2021	45/118	Q2	62.29
2020	42/115	Q2	63.91
2019	38/114	Q2	67.11
2018	24/108	Q1	78.24
2017	23/106	Q1	78.77

CATEGORY

PHYSICS, APPLIED

60/178

JCR YEAR	JCI RANK	QUARTILE	JCI PERCENTILE
2022	60/178	Q2	66.57
2021	52/178	Q2	71.07
2020	45/171	Q2	73.98
2019	41/170	Q1	76.18
2018	31/169	Q1	81.95
2017	27/165	Q1	83.94

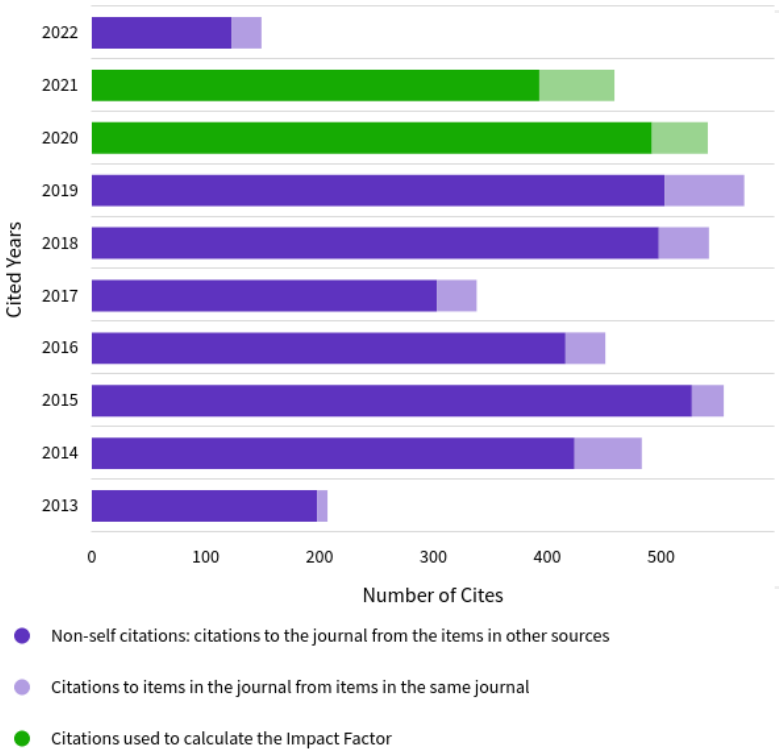
Citation network

Cited Half-life

8.5 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	NON-SELF CITATIONS	SELF CITATIONS
7,684	7,120	564



# OF CITES FROM 2022	CUMULATIVE %	# OF CITING SOURCES
7,684 citations	**100.00%**	**1,012 sources**
149 citations	1.94%	84 sources
459 citations	7.91%	205 sources
541 citations	14.95%	234 sources
573 citations	22.41%	231 sources
542 citations	29.46%	241 sources
338 citations	33.86%	176 sources
451 citations	39.73%	246 sources
555 citations	46.95%	241 sources
483 citations	53.24%	220 sources
207 citations	55.93%	145 sources
Previous years: 3,386 citations		

Citing titles in all years

JOURNAL OF SYNCHROTRON RADIATION

	SOURCE NAME	COUNT
	All Others	366
1	JOURNAL OF SYNCHROTRON RADIATION	564
2	Nature Communications	165
3	PHYSICAL REVIEW B	140
4	REVIEW OF SCIENTIFIC INSTRUMENTS	134
5	Scientific Reports	118
6	OPTICS EXPRESS	109
7	JOURNAL OF APPLIED CRYSTALLOGRAPHY	106
8	Journal of Physical Chemistry C	102
9	Acta Crystallographica Section D-Structural Biology	93
10	PHYSICAL CHEMISTRY CHEMICAL PHYSICS	93
11	ACS Catalysis	89
12	NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION A-ACCELERATORS SPECTROMETERS DETECTORS AND ASSOCIATED EQUIPMENT	78
13	INORGANIC CHEMISTRY	67
14	Journal of Instrumentation	66
15	Applied Sciences-Basel	61
16	COMPTES RENDUS CHIMIE	61
17	ACTA OPTICA SINICA	60
18	CHEMISTRY OF MATERIALS	60
19	Nanomaterials	53
20	PHYSICS REPORTS-REVIEW SECTION OF PHYSICS LETTERS	51

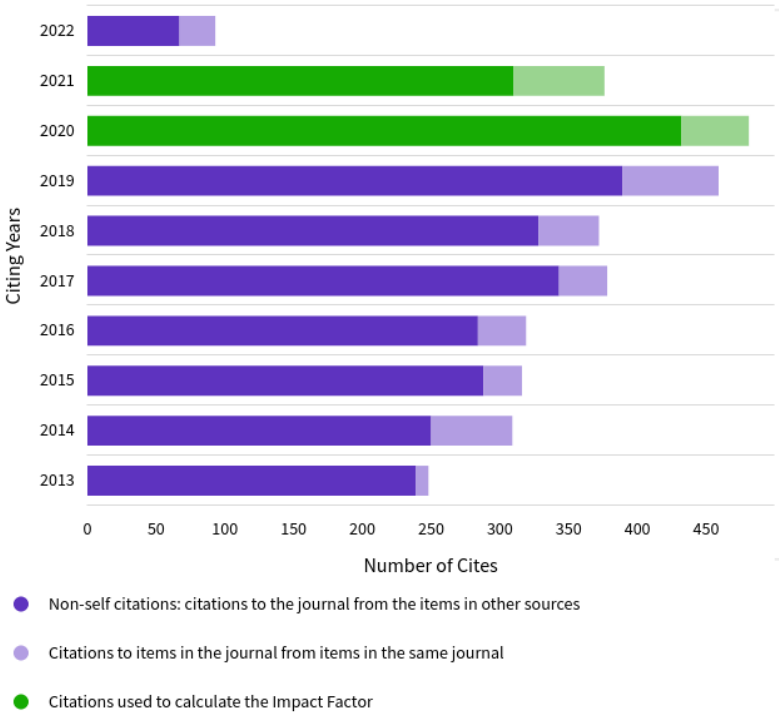
Showing 1 - 20 rows of 631 total (use export in the relevant section to download the full table)

Citing Half-life

8.9 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	NON-SELF CITATIONS	SELF CITATIONS
6,160	5,596	564



# OF CITES FROM 2022	CUMULATIVE %	# OF CITED SOURCES
6,160 citations	**100.00%**	**1,573 sources**
93 citations	1.51%	52 sources
376 citations	7.61%	208 sources
481 citations	15.42%	226 sources
459 citations	22.87%	223 sources
372 citations	28.91%	186 sources
378 citations	35.05%	181 sources
319 citations	40.23%	157 sources
316 citations	45.36%	159 sources
309 citations	50.37%	142 sources
248 citations	54.40%	129 sources
Previous years: 2,809 citations		

Cited titles in all years

JOURNAL OF SYNCHROTRON RADIATION

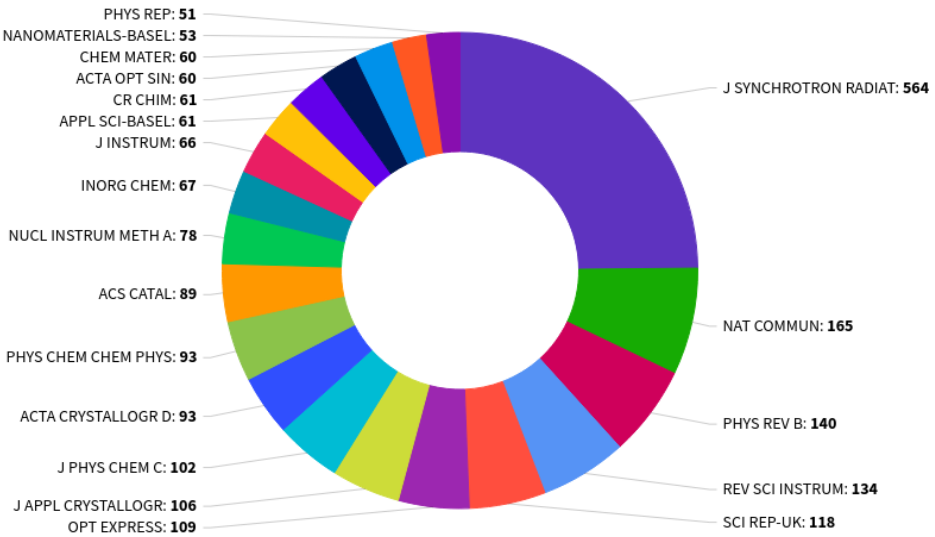
	SOURCE NAME	COUNT
	All Others	1,038
1	JOURNAL OF SYNCHROTRON RADIATION	564
2	REVIEW OF SCIENTIFIC INSTRUMENTS	188
3	JOURNAL OF APPLIED CRYSTALLOGRAPHY	138
4	PHYSICAL REVIEW B	136
5	PHYSICAL REVIEW LETTERS	135
6	NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION A-ACCELERATORS SPECTROMETERS DETECTORS AND ASSOCIATED EQUIPMENT	115
7	OPTICS EXPRESS	94
8	Scientific Reports	94
9	Nature Communications	93
10	NATURE	87
11	INORGANIC CHEMISTRY	86
12	Acta Crystallographica Section D-Structural Biology	81
13	Nature Photonics	64
14	Journal of the American Chemical Society	55
15	SCIENCE	53
16	APPLIED PHYSICS LETTERS	52
17	IUCrJ	42
18	PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA	42
19	Journal of Nuclear Materials	36
20	JOURNAL OF ELECTRON SPECTROSCOPY AND RELATED PHENOMENA	34

Showing 1 - 20 rows of 419 total (use export in the relevant section to download the full table)

Journal Citation Relationships

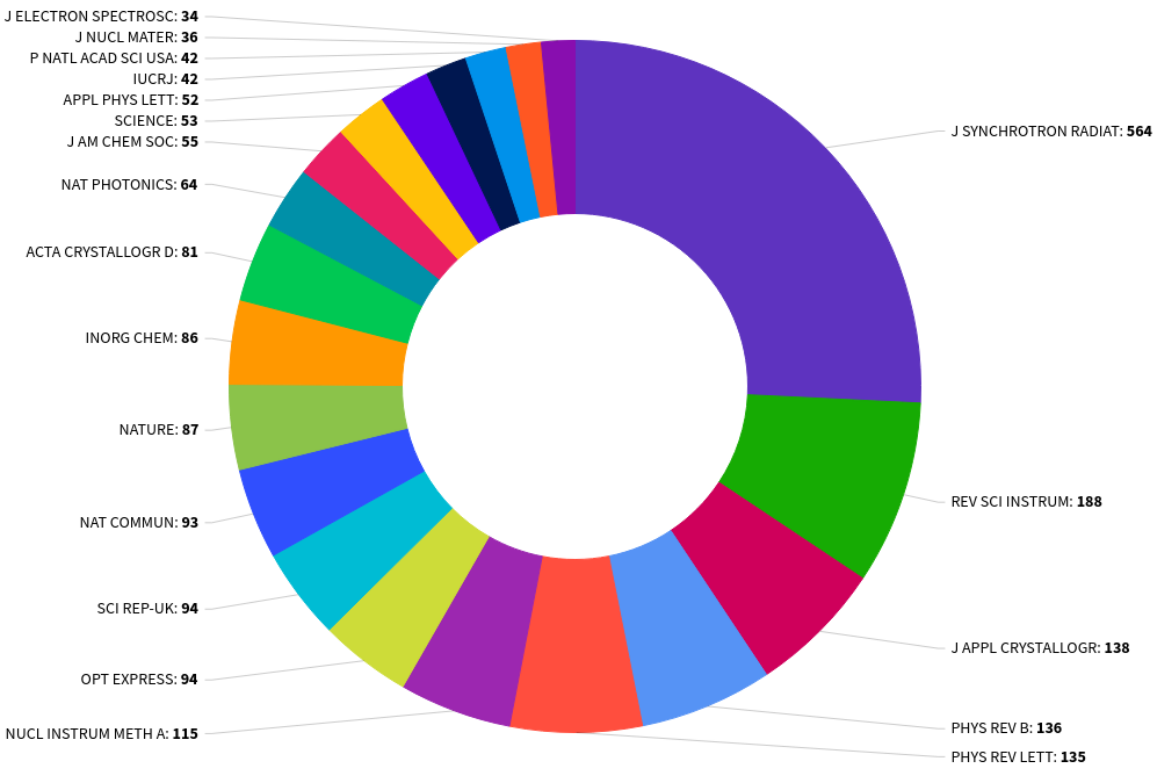
Cited Data

Top 20 journals citing J SYNCHROTRON RADIAT by number of citations



Citing Data

Top 20 journals cited by J SYNCHROTRON RADIAT 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

161 total citable items

	ARTICLES	REVIEWS	COMBINED (C)	OTHER DOCUMENT TYPES (O)	PERCENTAGE
NUMBER IN JCR YEAR 2022 (A)	161	0	161	8	95%
NUMBER OF REFERENCES (B)	6,132	0	6,132	28	100%
RATIO (B/A)	38.1	N/A	38.1	3.5	

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

47.5

EDITION

Science Citation Index Expanded

PHYSICS, APPLIED

47.2

INSTRUMENTS & INSTRUMENTATION

46.8

OPTICS

48.5

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)	128
2	HELMHOLTZ ASSOCIATION	87
3	EUROPEAN SYNCHROTRON RADIATION FACILITY (ESRF)	54
4	CHINESE ACADEMY OF SCIENCES	50
5	STANFORD UNIVERSITY	49
6	DIAMOND LIGHT SOURCE	42
-	UDICE-FRENCH RESEARCH UNIVERSITIES	42
8	CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE (CNRS)	38

Showing 1 - 8 rows of 613 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	160
2	GERMANY (FED REP GER)	133
3	France	103
4	Japan	78
5	England	69
6	CHINA MAINLAND	65
7	Sweden	50
8	Russia	38

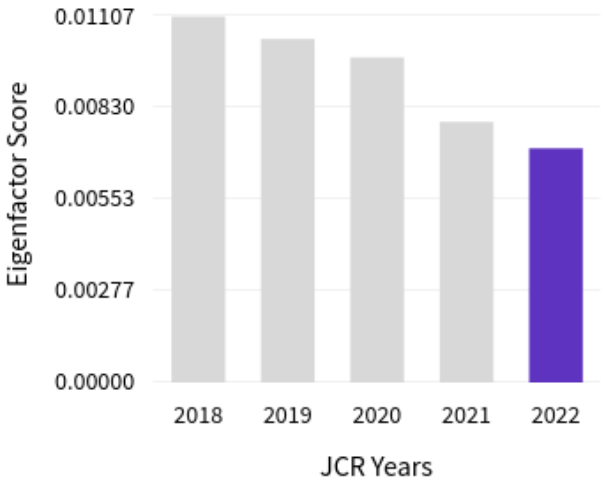
Showing 1 - 8 rows of 54 total (use export in the relevant section to download the full table)

Additional metrics

Eigenfactor score

0.00708

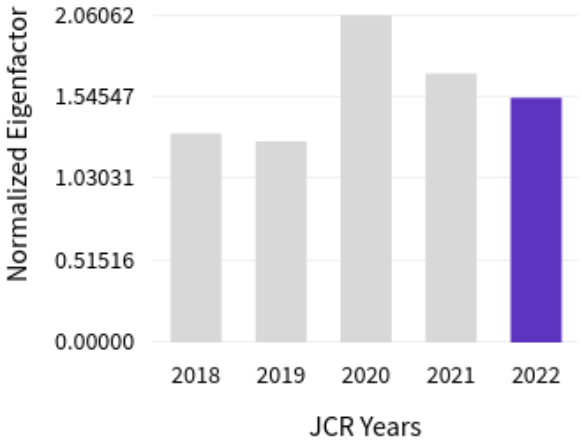
The Eigenfactor Score is a reflection of the density of the network of citations around the journal using 5 years of cited content as cited by the Current Year. It considers both the number of citations and the source of those citations, so that highly cited sources will influence the network more than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



Normalized Eigenfactor

1.54134

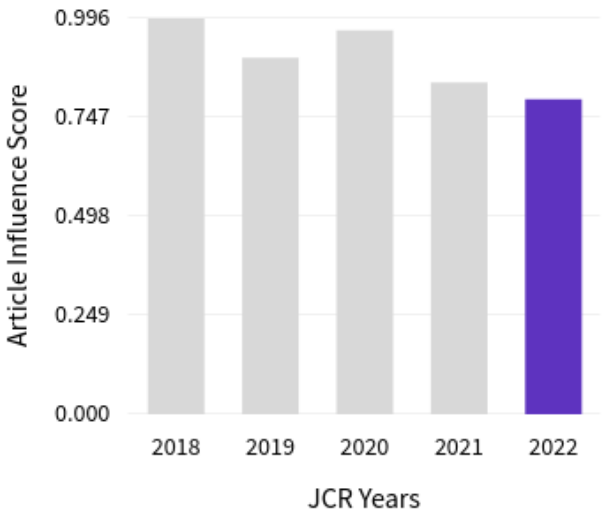
The Normalized Eigenfactor Score is the Eigenfactor score normalized, by rescaling the total number of journals in the JCR each year, so that the average journal has a score of 1. Journals can then be compared and influence measured by their score relative to 1. Learn more



Article influence score

0.792

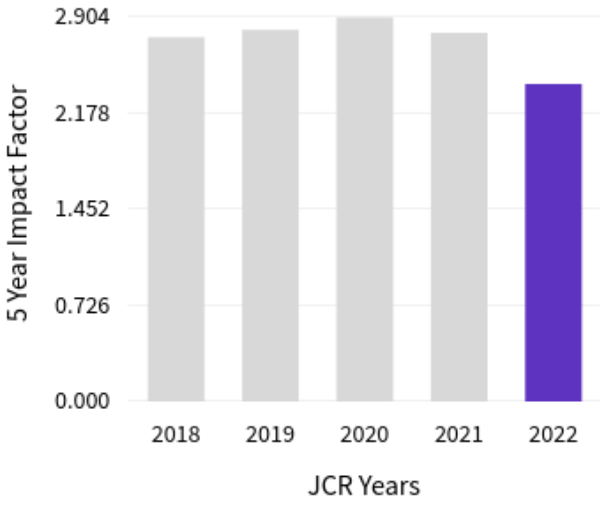
The Article Influence Score normalizes the Eigenfactor Score according to the cumulative size of the cited journal across the prior five years. The mean Article Influence Score for each article is 1.00. A score greater than 1.00 indicates that each article in the journal has above-average influence.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



5 year Impact Factor

2.4

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.



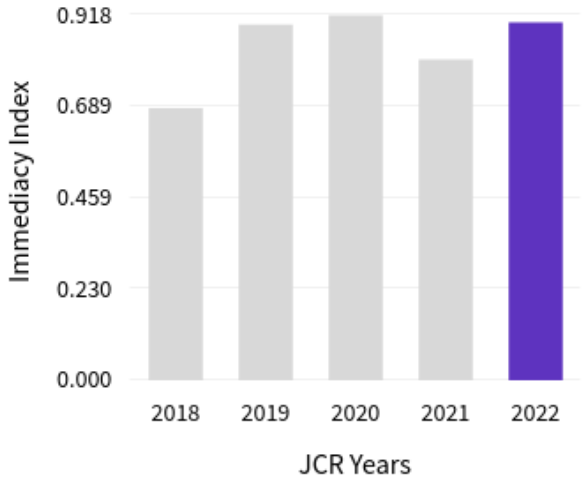
5 year Impact Factor calculation

$$\frac{\text{Citations in 2022 to items published in [2017-2021] (2,453)}}{\text{Number of citable items in [2017-2021] (1,017)}} = \frac{2{,}453}{1{,}017} = 2.4$$

Immediacy Index

0.9

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	149	149 / 161 = 0.9
Number of items published in 2022	161	

