Journal Citation Reports
Your gateway to find the most relevant and impactful journals

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Agenda

• Introduction to Journal Citation Reports (JCR)
• Different User Persona
• Journal Evaluation using JCR
  - Impact Factor
  - Additional Evaluation Metrics
• Understanding Citation Patterns
• Using JCR-Best Practices
  - Informed Library Purchase Decisions
  - Selecting Right Journal for Publications
• The JCR Journal Selection Process
• Conclusion
Introduction to Journal Citation Reports (JCR)
What is the JCR?
The JCR is an annual report that distills citation trend data from the Web of Science Core Collection to help you understand journal performance.

- View Journal Impact Factor and other metrics.
- All journals in JCR are sourced from two indexes:
  - *Science Citation Index Expanded*
  - *Social Sciences Citation Index*
  - Data goes back to 1997
- Citations are sourced from all indexes in the Core Collection
- Data represents a snapshot in time—Metrics in 2018 are sourced from data published in 2017
2018 JCR

11,655 journals
234 categories
80 countries
2,206 journal imprints
276 new journals added to the JCR this year
20 journals suppressed
5 Editorial Expression of Concern on 5 additional titles
10% average increase in JIF

Journal Intelligence
The JCR is more than just the Impact Factor. New descriptive and contextual information helps you gain a comprehensive picture of a journal’s role in the network of scholarly communication.

Transparency
- With new article-level data, you have a clearer understanding of the quality of the articles included in the journal as well as the relationship between the article and the journal.
- You can see through the data to a more nuanced consideration of journal value.
Evolution of JCR

1975
JCR is launched with SCI

1978
SSCI edition added to JCR

1979
A&H citations added

2008
Proceedings indices citations added

2016
ESCI citations added

2018
BKCI citations added
The JCR Story

Journal Intelligence

• Journal metrics and indicators (Journal Impact Factor) with descriptive and contextual information.

Transparency

• See through the data to a more nuanced consideration of journal value.
• Granular article-level data that explains quality of the articles included in the journal

Exhibits Journal value

• See the reciprocal relationship between the quality of a journal and the quality of its content. Good articles make for a good journal, and a good journal enhances a good article.

Clarivate Analytics is publisher-neutral- No conflict of Interest
Different User Persona
JCR and its role in Scientific Research

Publishers/Editors
- Compare your journals directly against peers and competitors.
- Understand the citation profile of the documents in your journals.
- Track your publications’ performance by building a custom journal list.

Librarians
- Find quantitative data to justify your collection development decisions.
- Evaluate your collections with custom journal lists.
- Track your faculty/institution’s contributions to journal performance.

Data Scientists
- Dive deeper into the JCR data with our downloadable cited and citing data tables, as well as the full data and metrics files, to understand how disciplines interconnect in the citation network.

Researchers
- Evaluate journals for your submissions.
- Focus on publishing trends like Open Access
- Determine your articles’ contributions to journal performance.
JCR Metadata Structure
Welcome to Journal Citation Reports

Search a journal title or select an option to get started

Enter a journal name

Browse by Journal

Browse by Category

Custom Reports

Landing Page
Journal Evaluation using JCR
Journal Impact Factor reflects a JOURNAL’s overall performance


Cites in 2017 to items published in: 2016 =879  Number of items published in: 2016 =214
2015 =1054  2015 =218
Sum: 1933  Sum: 432

Calculation=
\[
\frac{\text{Cites to recent items}}{\text{Number of recent items}} = \frac{1933}{432} = 4.475
\]
Using Journal Impact Factor scores as a measure (or proxy) of performance for individual papers or authors represents **IMPROPER USE** of the metric in research evaluation.
Impact Factor Transparency

See a three-dimensional view of a journal by drilling down into the underlying data behind an Impact Factor.
Viewing a journal’s Impact Factor for the current year in the context of its performance over time helps you understand whether a journal’s influence in the literature is growing or declining.

The example at left, for *Energy & Environmental Science*, shows that this journal has been steadily growing in influence over the past 5 years.
Impact factor vs Rank in Category

• The impact factor is just an absolute number calculated using a simple mathematical formula based on the ratio of the number of citations of the journal’s articles on the number of total citable articles published by that journal.
• One particular limitation is that certain fields are very specialized and may not receive that many citations. Thus, an absolute number may not be the best metric to gauge the importance of that journal in a particular field.
• On the other hand, JCR rankings in a category tell researchers the impact of the journal in that research category.
• Each journal can have different ranks in different categories. Based on the target audience and focus of the paper, researchers can decide in which journal to publish.
JCR Metrics—Much more than Impact Factor

How quickly articles in a journal are cited???
Measure of “cutting-edge”-ness

How influential is the journal?
More higher impact journals cite its articles, more is the Eigenfactor
Insights into JIF Contributions
### Citable Items in 2015 and 2016

**Journal Impact Factor contributing items**

**Citable Items in 2016 and 2015 (642)** Citations in 2017 (19,303)

#### Showing 642 citable items in 2016 and 2015

<table>
<thead>
<tr>
<th>Title</th>
<th>Citations Counted Towards JIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cesium-containing triple cation perovskite solar cells: improved stability, reproducibility and high efficiency</td>
<td>471</td>
</tr>
<tr>
<td>Supercapacitor electrode materials: nanostructures from 0 to 3 dimensions</td>
<td>259</td>
</tr>
<tr>
<td>Hysteresis-less inverted CH3NH3PbI3 planar perovskite hybrid solar cells with 18.1% power conversion efficiency</td>
<td>204</td>
</tr>
<tr>
<td>Niz2p as a Janus catalyst for water splitting: the oxygen evolution activity of Niz2P nanoparticles</td>
<td>203</td>
</tr>
<tr>
<td>Visible-light driven heterojunction photocatalysts for water splitting - a critical review</td>
<td>188</td>
</tr>
</tbody>
</table>

When you click out to view papers in the Web of Science, citation counts will be higher, reflecting current counts of citations from all years.

Citation counts for citable items reflect the number of times each item was cited by papers published in 2017 at the time of JCR data extraction.

View a complete list of all citable items in the Impact Factor denominator.
Citations in 2017

View a complete list of all 2017 papers that have cited this journal, contributing to the Impact Factor numerator.

Use the + and – signs to navigate.

For each citing paper, you can examine the cited references. Each cited reference counts as 1 in the JCR numerator.

What is “Document Type: Unknown”?

A small number of citations can be attributed to the journal, but contain incomplete or incorrect bibliographic data—the exact article being cited is ambiguous.

Such citations are designated “unknown”: unlinked to a specific article in the Core Collection.
Histogram: Overview

Each bar on the graph represents the number of citable items in the journal that have accrued a particular number of citations in 2017. All graphs display 1-50 citations, plus one bar for papers with more than 50 citations.

Hover over each bar to see the distribution of items by type cited a particular number of times.

- 19 articles were cited 6 times
- 1 review was cited 6 times
- 1 non-scholarly paper was cited 6 times

What is “Other”?

Other includes non-scholarly materials in the journal, including such things as editorials, news items, correspondence, and corrections. The items are not counted in the Impact Factor denominator, but citations to the items are counted in the numerator. Why?
Contributions by Country & Region

These data summarize the characteristics of the journal’s published content for the most recent three years, that is, 2017 and the two prior years, combined. This information is based on all listed authors and addresses. It is meant to be descriptive rather than comparative.

### Contributions by country/region

<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>COUNT</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA</td>
<td>366</td>
</tr>
<tr>
<td>China Mainland</td>
<td>292</td>
</tr>
<tr>
<td>South Korea</td>
<td>101</td>
</tr>
<tr>
<td>Germany (Fed Rep Ger)</td>
<td>99</td>
</tr>
<tr>
<td>England</td>
<td>88</td>
</tr>
<tr>
<td>Switzerland</td>
<td>64</td>
</tr>
<tr>
<td>Japan</td>
<td>49</td>
</tr>
<tr>
<td>Singapore</td>
<td>45</td>
</tr>
<tr>
<td>Spain</td>
<td>40</td>
</tr>
<tr>
<td>Australia</td>
<td>39</td>
</tr>
</tbody>
</table>

### Contributions by organizations

<table>
<thead>
<tr>
<th>ORGANIZATION</th>
<th>COUNT</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States Department of Energy (DOE)</td>
<td>107</td>
</tr>
<tr>
<td>Chinese Academy of Sciences</td>
<td>90</td>
</tr>
<tr>
<td>Massachusetts Institute of Technology (MIT)</td>
<td>59</td>
</tr>
<tr>
<td>University of California System</td>
<td>45</td>
</tr>
<tr>
<td>Ecole Polytechnique Federale de Lausanne</td>
<td>41</td>
</tr>
<tr>
<td>California Institute of Technology</td>
<td>32</td>
</tr>
<tr>
<td>Nanyang Technological University &amp; National Institute of Education (NIE), Singapore</td>
<td>28</td>
</tr>
<tr>
<td>Northwestern University</td>
<td>27</td>
</tr>
<tr>
<td>Helmholtz Association</td>
<td>26</td>
</tr>
<tr>
<td>Tsinghua University</td>
<td>24</td>
</tr>
</tbody>
</table>

Expand each list to see the top 50 countries or institutions contributing to this journal in the past 3 years.
User Challenges addressed by enhanced JCR
Informed Library Purchase Decisions

Librarian Challenge: I need to understand what journals are the most important to our researchers’ success.

• See detailed data on the content, regions, and institutions that create that impact, including your articles, your authors
• Understand citation half lives to decide number of years of backfiles needed

Librarian Challenge: Select the best collection of relevant journals given budget constraints

• Do an evidence based appraisal of journal titles using JCR metrics to decide best fit journals for your institution

Librarian Challenge: I need to help my researchers and my institution highlight their impact in the research community.

• JCR lets you see the impact your researchers had ON that journal.
**Journal Selection and Increasing Research Visibility**

**Researcher Challenge: I need to find the best fit journal for my manuscript.**

- See if your article’s content aligns with the content and audience of the journal
- **See most-cited articles**
- Understand *community of researchers* that build the impact of each journal
- *Contributions by country/region* gives you a view of the national or international range of the authors.

**Researcher Challenge: I need to show my contributions to my research field.**

- **See Top-cited articles in the JIF** (JIF denominator)
- Understand contribution of *Top-cited articles* through the *citation distribution graph*.
- Individual articles can be compared to the median to see if you are well-placed in the journal.
The JCR Journal Selection Process
Journal Selection Process and Editorial Board

**Journal Publishing Standards**
- Timeliness of publication
- Ethics

**Editorial Content**
- Is this subject already well covered?
- Will this journal enrich WoS with novel content?

**International Diversity**
- Does this journal target an international audience or specifically a regional audience?

**Citation Analysis**
- Total citations
- Recent citation activity

- Around 150 years of experience in their roles
- 12 master’s degrees
- Full time positions

16 Full Time Editors

Clarivate Analytics’ employees

12 main languages covered with fluency

No one of the editors publish

No one of the editors edit a journal

Bi-weekly meetings

No conflicts of interest
Web of Science: Quality Checks Galore

Web of Science Core Collection:

• Biweekly meetings (They discuss their findings and opinions about the journals they assessed)

• 10-12% Acceptance Rate

We pay particular attention to existing content and constantly monitor our indexed journals. This actually gets bigger and bigger. It is not uncommon that journals that were once promising and strong lose quality and timeliness, or even morph into predatory practices.

Example:
Added in 2007, monitored, then removed in 2011
Conclusion

- Streamline your library purchase and inventory by making evidence based decisions using JCR metrics
- Understand citation relationships between journals
- Educate researchers on appropriate journals for publishing
- Highlight research impact of your organization
- Avoid reputational risk of publishing in predatory journals
- Increase research visibility