# InCites
# Essential Science Indicators
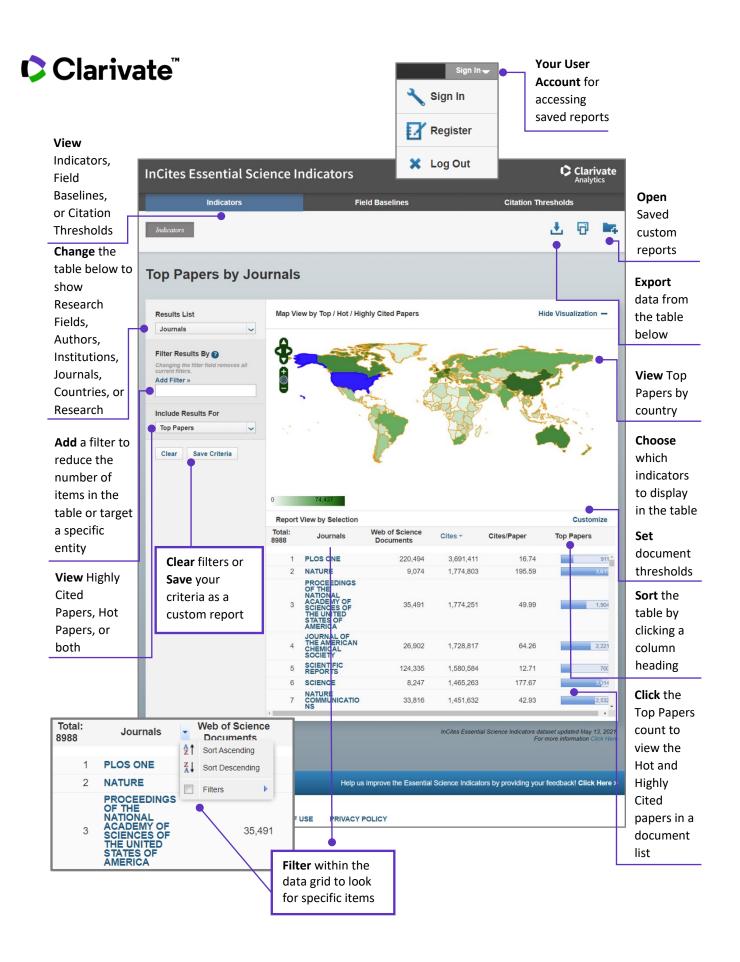
## Quick Reference Guide

### What is InCites Essential Science Indicators?

Essential Science Indicators is a compilation of science performance statistics and trends data derived from Web of Science Core Collection data.* This analytical tool surveys more than 12,000 journals from around the world for article publication and citation count performance indicators. It ranks authors, institutions, countries, and journals in 22 specific fields of research by the number of papers published, citations received, and citations per paper.

Data covers a rolling 10-year period and includes bimonthly updates to rankings and citation counts.

- Examine the research performance of top-ranking institutions, countries, journals, authors, and papers in each of the 22 research fields in ESI
- Compare the citation performance of a paper with that of its peers by both publication period and field.
- Identify trends and emerging areas of research in the sciences and social sciences.

*\* Data is limited to Clarivate indexed journals. Books, book chapters, or articles published in journals not indexed by Clarivate are not taken into account, either in terms of publication counts or citation counts*

![Clarivate™]

**Your User Account** for accessing saved reports

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Log Out

**View** Indicators, Field Baselines, or Citation Thresholds

**Change** the table below to show Research Fields, Authors, Institutions, Journals, Countries, or Research

**Add** a filter to reduce the number of items in the table or target a specific entity

**View** Highly Cited Papers, Hot Papers, or both

**Clear** filters or **Save** your criteria as a custom report

**Open** Saved custom reports

**Export** data from the table below

**View** Top Papers by country

**Choose** which indicators to display in the table

**Set** document thresholds

**Sort** the table by clicking a column heading

**Click** the Top Papers count to view the Hot and Highly Cited papers in a document list

**Filter** within the data grid to look for specific items

InCites Essential Science Indicators

Clarivate Analytics

Indicators | Field Baselines | Citation Thresholds

Indicators

**Top Papers by Journals**

Results List
Journals

Filter Results By
Changing the filter field removes all current filters.
Add Filter »

Include Results For
Top Papers

Clear | Save Criteria

Map View by Top / Hot / Highly Cited Papers    Hide Visualization —

0    74,437

Report View by Selection    Customize

| Total: 8988 | Journals | Web of Science Documents | Cites ▾ | Cites/Paper | Top Papers |
|---|---|---|---|---|---|
| 1 | PLOS ONE | 220,494 | 3,691,411 | 16.74 | 911 |
| 2 | NATURE | 9,074 | 1,774,803 | 195.59 | 3,615 |
| 3 | PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA | 35,491 | 1,774,251 | 49.99 | 1,904 |
| 4 | JOURNAL OF THE AMERICAN CHEMICAL SOCIETY | 26,902 | 1,728,817 | 64.26 | 2,221 |
| 5 | SCIENTIFIC REPORTS | 124,335 | 1,580,584 | 12.71 | 700 |
| 6 | SCIENCE | 8,247 | 1,465,263 | 177.67 | 3,014 |
| 7 | NATURE COMMUNICATIONS | 33,816 | 1,451,632 | 42.93 | 2,532 |

InCites Essential Science Indicators dataset updated May 13, 2021
For more information Click Here

Help us improve the Essential Science Indicators by providing your feedback! Click Here ›

OF USE    PRIVACY POLICY

| Total: 8988 | Journals | ▾ | Web of Science Documents | |
|---|---|---|---|---|
| | | A↑ Z | Sort Ascending | |
| | | Z↓ A | Sort Descending | |
| 1 | PLOS ONE | ☐ | Filters ▸ | |
| 2 | NATURE | | | |
| 3 | PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA | | | 35,491 |

**View**
Indicators, Field Baselines, or Citation Thresholds

**Export**
data from the table below

**Show**
additional fields for each item in the table

**Sort** the table by Citations, Publication Year, or Journal Title

**Track** research performance over time

**Click** the title of the paper to access the *Web of Science* full record page

**Identify** Hot papers and export graphs of citations

**Click** the Times Cited count of a paper to view a graph providing the number of citations across citing years

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**InCites Essential Science Indicators**    Clarivate Analytics

| Indicators | Field Baselines | Citation Thresholds |

*Indicators*  *Citation Trends*

## Papers by Research Field

Sort By [Publication Year]          Customize Documents          11 - 20 of 30,098

**Citation Trends**

**Documents**

**Filter Results By** ?
Add Filter »
[                    ]

**Include Results For**
[Top Papers          ]

[Clear]  [Save Criteria]

11  HEART DISEASE AND STROKE STATISTICS-2014 UPDATE A REPORT FROM THE AMERICAN HEART ASSOCIATION                    Times Cited: 11,386
By: GO, AS; MOZAFFARIAN, D; ROGER, VL; et.al
Source: CIRCULATION 129 (3): E28-E292 JAN 21 2014
Research Fields: CLINICAL MEDICINE

12  THE COCHRANE COLLABORATIONS TOOL FOR ASSESSING RISK OF BIAS IN RANDOMISED TRIALS                    Times Cited: 10,702
By: HIGGINS, JPT; ALTMAN, DG; GOTZSCHE, PC; et.al
Source: BMJ-BRITISH MEDICAL JOURNAL 343: - OCT 18 2011
Research Fields: CLINICAL MEDICINE

13  CLINICAL FEATURES OF PATIENTS INFECTED WITH 2019 NOVEL CORONAVIRUS IN WUHAN, CHINA                    Times Cited: 10,081
By: HUANG, CL; WANG, YM; LI, XW; et.al
Source: LANCET 395 (10223): 497-506 FEB 15 2020        🔥 ESI Hot
Research Fields: CLINICAL MEDICINE                     Research Front

14  CANCER STATISTICS, 2012                    Times Cited: 10,012
By: SIEGEL, R; NAISHADHAM, D; JEMAL, A;
Source: CA-A CANCER JOURNAL FOR CLINICIANS 62 (1): 10-29 JAN-FEB 2012
Research Fields: CLINICAL MEDICINE

15  CANCER STATISTICS, 2013                    Times Cited: 9,548
By: SIEGEL, R; NAISHADHAM, D; JEMAL, A;
Source: CA-A CANCER JOURNAL FOR CLINICIANS 63 (1): 11-30 JAN-FEB 2013
Research Fields: CLINICAL MEDICINE

16  CANCER STATISTICS IN CHINA, 2015                    Times Cited: 9,447
By: CHEN, WQ; ZHENG, RS; BAADE, PD; et.al
Source: CA-A CANCER JOURNAL FOR CLINICIANS 66 (2): 115-132 MAR-APR 2016
Research Fields: CLINICAL MEDICINE

Sort By [Publication Year]          11 - 20 of 30,098    Show [10 per page]

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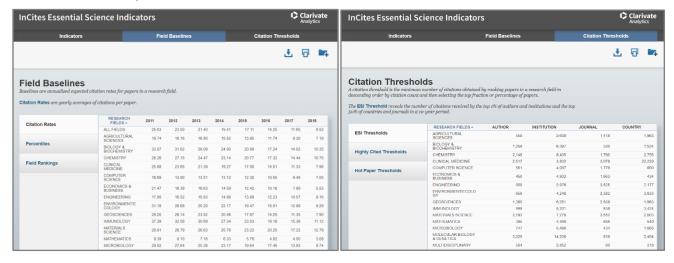© 2021 CLARIVATE ANALYTICS    TERMS OF USE    PRIVACY POLICY

**Field Baselines**

Baselines are annualized expected citation rates for papers in a research field. View baselines for Citation Rates, Percentiles, and Field Rankings (see the Glossary section for more info)

**Citation Thresholds**

View the minimum number of citations required to be ranked as a top author, institution, journal, country, or paper in each of the 22 research fields in ESI

InCites Essential Science Indicators | Clarivate Analytics

| Indicators | Field Baselines | Citation Thresholds |

**Field Baselines**
Baselines are annualized expected citation rates for papers in a research field.

Citation Rates are yearly averages of citations per paper.

| | RESEARCH FIELDS ▲ | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
|---|---|---|---|---|---|---|---|---|---|
| Citation Rates | ALL FIELDS | 25.63 | 23.50 | 21.40 | 19.41 | 17.11 | 14.25 | 11.65 | 8.52 |
| | AGRICULTURAL SCIENCES | 19.74 | 18.16 | 16.80 | 15.52 | 13.85 | 11.74 | 9.30 | 7.19 |
| Percentiles | BIOLOGY & BIOCHEMISTRY | 33.97 | 31.62 | 28.09 | 24.90 | 20.98 | 17.24 | 14.02 | 10.35 |
| | CHEMISTRY | 28.26 | 27.15 | 24.47 | 23.14 | 20.77 | 17.32 | 14.44 | 10.75 |
| Field Rankings | CLINICAL MEDICINE | 25.88 | 23.65 | 21.39 | 19.27 | 17.08 | 14.01 | 11.33 | 7.96 |
| | COMPUTER SCIENCE | 16.69 | 13.90 | 13.51 | 13.12 | 12.30 | 10.55 | 9.49 | 7.05 |
| | ECONOMICS & BUSINESS | 21.47 | 18.39 | 16.63 | 14.59 | 12.42 | 10.16 | 7.89 | 5.53 |
| | ENGINEERING | 17.85 | 16.52 | 15.93 | 14.88 | 13.88 | 12.23 | 10.57 | 8.16 |
| | ENVIRONMENT/ECOLOGY | 31.18 | 28.68 | 25.20 | 22.17 | 19.47 | 15.91 | 12.89 | 9.29 |
| | GEOSCIENCES | 29.20 | 26.14 | 23.52 | 20.46 | 17.67 | 14.25 | 11.35 | 7.90 |
| | IMMUNOLOGY | 37.28 | 32.58 | 30.69 | 27.34 | 23.03 | 19.16 | 15.36 | 11.12 |
| | MATERIALS SCIENCE | 29.91 | 28.79 | 26.63 | 25.76 | 23.22 | 20.25 | 17.22 | 12.79 |
| | MATHEMATICS | 9.39 | 8.10 | 7.16 | 6.33 | 5.76 | 4.82 | 4.00 | 3.08 |
| | MICROBIOLOGY | 29.92 | 27.64 | 25.38 | 23.17 | 19.64 | 17.45 | 13.93 | 9.74 |

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| Indicators | Field Baselines | Citation Thresholds |

**Citation Thresholds**
A citation threshold is the minimum number of citations obtained by ranking papers in a research field in descending order by citation count and then selecting the top fraction or percentage of papers.

The ESI Threshold reveals the number of citations received by the top 1% of authors and institutions and the top 50% of countries and journals in a 10-year period.

| | RESEARCH FIELDS ▲ | AUTHOR | INSTITUTION | JOURNAL | COUNTRY |
|---|---|---|---|---|---|
| ESI Thresholds | AGRICULTURAL SCIENCES | 559 | 2,609 | 1,418 | 1,963 |
| | BIOLOGY & BIOCHEMISTRY | 1,059 | 6,397 | 326 | 1,534 |
| Highly Cited Thresholds | CHEMISTRY | 2,148 | 8,435 | 1,766 | 2,755 |
| | CLINICAL MEDICINE | 2,517 | 3,802 | 3,078 | 22,229 |
| Hot Paper Thresholds | COMPUTER SCIENCE | 551 | 4,067 | 1,779 | 690 |
| | ECONOMICS & BUSINESS | 460 | 4,902 | 1,563 | 434 |
| | ENGINEERING | 868 | 2,976 | 3,525 | 2,177 |
| | ENVIRONMENT/ECOLOGY | 959 | 4,249 | 2,382 | 3,833 |
| | GEOSCIENCES | 1,389 | 6,251 | 2,508 | 1,965 |
| | IMMUNOLOGY | 999 | 5,201 | 538 | 3,424 |
| | MATERIALS SCIENCE | 2,193 | 7,279 | 3,552 | 2,003 |
| | MATHEMATICS | 385 | 4,499 | 888 | 540 |
| | MICROBIOLOGY | 747 | 5,499 | 434 | 1,565 |
| | MOLECULAR BIOLOGY & GENETICS | 3,029 | 14,208 | 516 | 2,404 |
| | MULTIDISCIPLINARY | 504 | 2,852 | 60 | 218 |

# Glossary

## Citation rates

Average citation rates are calculated for each year of the 10-year period, based on accumulated citations from the year of publication to the most current bimonthly update. Averages are calculated by adding the citation counts of individual papers and dividing by the number of papers. An average for the full 10-year period is also given in All Years.

## Field rankings

Field Rankings displays total papers, total citations received, citations per paper, and Hot and Highly Cited papers in each field.

## Percentiles

The term *percentile* designates a citation threshold at or above that at which a fixed fraction of the papers fall. This term is used to denote any fixed fraction of top papers ordered by citation count. The levels we have selected for listing by field and year are 0.01%, 0.1%, 1.0%, 10%, 20%, and 50%.

## Research fronts

A group of Highly Cited papers, referred to as "core papers," in a specialized topic defined by co-citation analysis. Since the assignment of papers to a Research Front is not based on the journal categories used in Essential Science Indicators, Research Fronts offer an alternative classification scheme for Highly Cited papers.

# Clarivate™

| Thresholds required for an entity or paper's inclusion in Essential Science Indicators | Citation percentile | Years of data examined |
|---|---|---|
| Scientists | 1% | 10 |
| Institutions | 1% | 10 |
| Countries | 50% | 10 |
| Journals | 50% | 10 |
| Highly Cited Papers | 1% | 10 |
| Hot Papers | .1% | 2 |

## Top papers

- **Highly Cited Papers**: The top-cited papers over the last 10 years in 22 scientific fields. Rankings are based on meeting a threshold of the top 1% by field and year based on total citations received.

- **Hot Papers**: Papers published in the past two years that receive enough citations during the most recent bimonthly update to place them in the top 0.1% when compared to peer papers.

## Getting help

Click the Help button on any page to get detailed help on features as well as detailed search tips and examples.

Learn more about Essential Science Indicators at:

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