

Web of Science Group presents the
***Research. Smarter.* webinar series.**
Essential resources, tips, and guidance
to help you power through each stage
of your research journey.

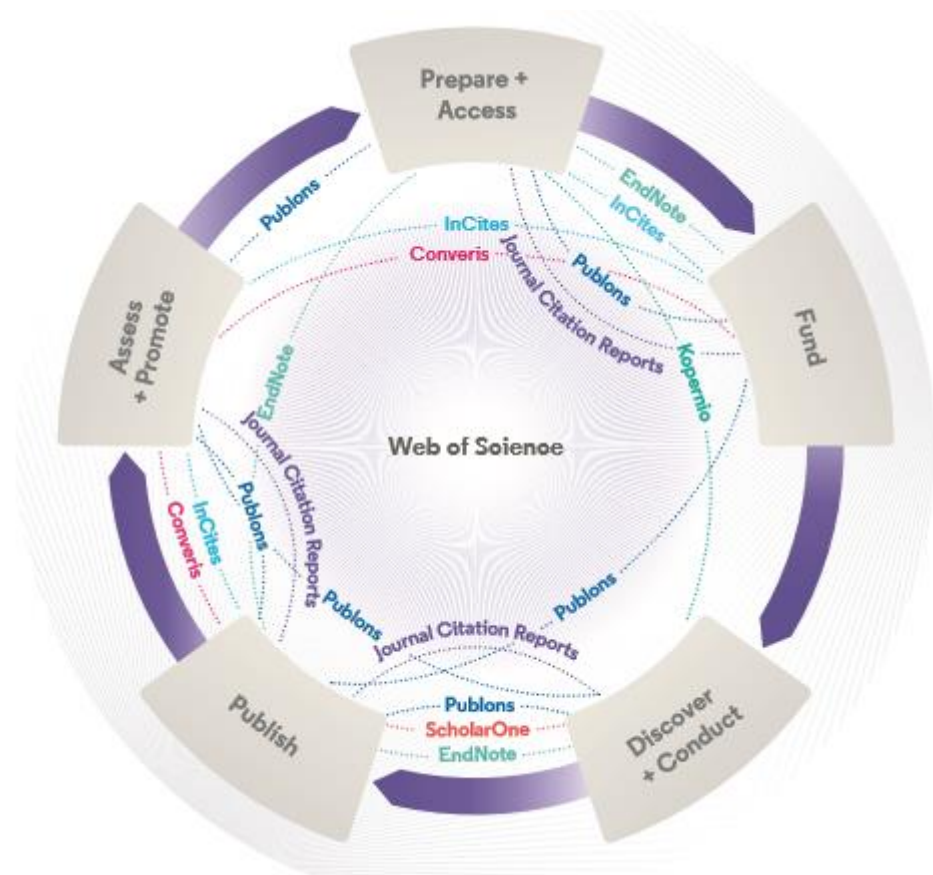
Essential Science Indicators (ESI)

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Martie 2020

The literature research workflow

The Web of Science Group supports the entire research workflow



Web of Science

The world's largest and highest quality publisher-neutral citation index.

InCites

Analyze institutional productivity and benchmark your output against peers worldwide.

Essential Science Indicators

Reveals emerging science trends as well as influential individuals, institutions, papers, journals, and countries across 22 categories of research.

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The world's most influential and trusted resource for evaluating peer-reviewed publications.

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Simplified submission workflows and peer review for scholarly publishers and societies.

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A smarter way to streamline references and write collaboratively.

Kopernio

Fast, one-click access to millions of high-quality research papers.

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Supporting researchers through documenting their peer-review and journal editing contributions, providing guidance and best practice for the peer-review process, as well as increasing the overall visibility of their research and its impact.

Converis

One flow to let institutions collect, manage, and report on all research activity, working seamlessly with an institutions existing systems.

Web of Science Author Connect

Reach leading researchers in the sciences, social sciences, and arts and humanities.

Essential Science Indicators (ESI)

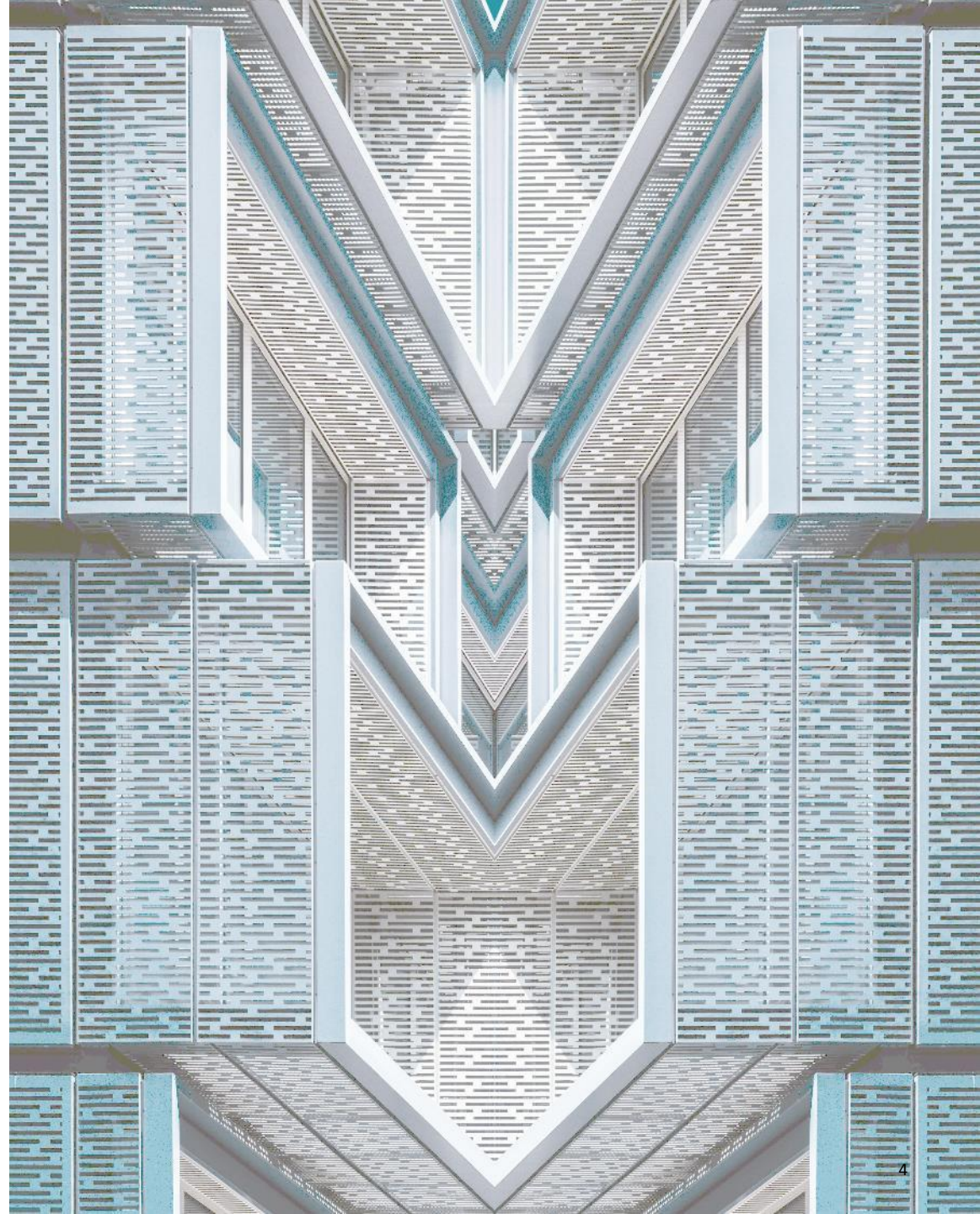
Essential Science Indicators (ESI) is an analytical tool that helps you **identify top-performing research** in Web of Science Core Collection.

ESI surveys more than 11,000 journals from around the world to **rank authors, institutions, countries, and journals** in 22 broad fields based on publication and citation performance.

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

Agricultural Sciences
Biology & Biochemistry
Chemistry
Clinical Medicine
Computer Science
Ecology/Environment
Economics & Business
Engineering
Geosciences
Immunology
Material Sciences

Mathematics
Microbiology
Molecular Biology & Genetics
Multidisciplinary
Neuroscience & Behavior
Pharmacology & Toxicology
Physics
Plant & Animal Science
Psychology/Psychiatry
Social Sciences, general
Space Science



Essential Science Indicators (ESI)

Essential Science Indicators is sourced from:

- Science Citation Index-Expanded (SCIE)
- Social Sciences Citation Index (SSCI)

Document Types

ESI analyzes articles and reviews from SCIE and SSCI journals to determine how well a paper, organization, etc. is performing.

Letters, editorial materials, corrections, etc. aren't regularly cited and, therefore, aren't included in ESI calculations.

Depth of Data

ESI data consists of a 10-year rolling file, which increases with each bimonthly update, accumulating up to 11 years.

After 11 full years of data are added, the first year is then dropped, setting the file back to a 10-year period.

Fields

ESI uses 22 broad disciplines to rank entities and identify top-performing papers. Each journal is assigned to only one field, and the research published in that journal will take on that field assignment.

For Multidisciplinary journals, reclassification is done at the paper level, based on an analysis of the cited references.

Citation Counts

Only citations from indexed journals in the Science Citation Index Expanded, Social Science Citation Index and Arts & Humanities Citation Index, are taken into account for ESI purposes.

Citations coming from books, conference proceedings, or journals indexed in the Emerging Sources Citation Index will not be included in the citation counts for papers or groups of papers.

Essential Science Indicators (ESI)

Use cases

- Analiza performanței cercetării pentru companii, instituții, țări și reviste
- Identificarea tendințelor în științe și științe sociale
- Rangul pentru țări, reviste, cercetători, lucrări și instituții într-un domeniu de cercetare
- Determinarea rezultatelor cercetării și impactului într-un anumit domeniu de cercetare
- Cine publică cercetarea cu cel mai mare impact într-un domeniu de cercetare ?

Baselines: *ajută la adăugarea unui context*

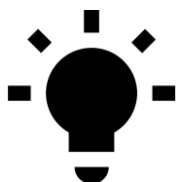
Research Fronts: *crearea de grupuri de articole extrem de citate, util pentru identificarea descoperirilor inovatoare*

Essential Science Indicators (ESI)

Citation Thresholds

Inclusion in ESI is dependent upon meeting certain citation thresholds. Only the most highly cited individuals, institutions, journals, countries and papers are included in ESI.

Entity	Percentile	Data Years
Researchers	1%	10
Institutions	1%	10
Countries	50%	10
Journals	50%	10
Highly Cited Papers	1%	10
Hot Papers	0.1%	2



How to Read This Table: This table shows the citation performance threshold that an entity's research needs to meet in order for it to qualify as Highly Cited in a field. Data Years refers to the years examined - 10 means that the full ESI data file is considered. Percentiles are inverted, so 1% means that an entity is performing in the top 1% when compared to peers.

Example: To be included as a Highly Cited Researcher in Chemistry, the total number of citations to a person's Chemistry output must be in the top 1% when compared to all other researchers, who have published Chemistry papers in the last 10 years. Each author listed on a paper is counted equally.

Essential Science Indicators (ESI)

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	528	2,495	1,347	1,472
Highly Cited Thresholds	BIOLOGY & BIOCHEMISTRY	1,054	6,823	305	1,228
	CHEMISTRY	2,148	8,502	1,434	2,297
Hot Paper Thresholds	CLINICAL MEDICINE	2,419	3,380	2,905	16,012
	COMPUTER SCIENCE	465	3,906	1,590	525
	ECONOMICS & BUSINESS	463	4,891	1,429	321
	ENGINEERING	745	2,843	3,026	1,863
	ENVIRONMENT/ECOLOGY	930	4,544	2,214	2,940
	GEOSCIENCES	1,386	6,695	2,390	1,765
	IMMUNOLOGY	1,034	5,419	432	2,800
	MATERIALS SCIENCE	1,989	6,965	3,326	1,557
	MATHEMATICS	372	4,888	850	494
	MICROBIOLOGY	762	5,774	324	1,585
	MOLECULAR BIOLOGY & GENETICS	2,784	14,681	350	2,566
	MULTIDISCIPLINARY	556	2,903	34	219
	NEUROSCIENCE & BEHAVIOR	1,412	6,795	1,420	904
	PHARMACOLOGY & TOXICOLOGY	610	3,666	5,026	1,229
	PHYSICS	13,581	21,325	1,999	3,573
	PLANT & ANIMAL SCIENCE	711	3,051	2,053	2,192
	PSYCHIATRY/PSYCHOLOGY	850	4,398	1,781	469
	SOCIAL SCIENCES, GENERAL	438	1,610	1,056	1,741
	SPACE SCIENCE	6,338	41,738	1,670	951

Essential Science Indicators (ESI)

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 Highly Cited Threshold reveals the minimum number of citations received by the top 1% of papers from each of 10 database years.

ESI Thresholds	RESEARCH FIELDS ^	2009	2010	2011	2012	2013	2014	2015	2016	2017
Highly Cited Thresholds	AGRICULTURAL SCIENCES	136	141	114	101	90	76	64	49	
	BIOLOGY & BIOCHEMISTRY	279	255	217	197	170	140	112	83	
Hot Paper Thresholds	CHEMISTRY	228	222	220	198	172	154	130	96	
	CLINICAL MEDICINE	228	211	183	161	140	118	101	76	
	COMPUTER SCIENCE	134	129	121	101	101	94	75	63	
	ECONOMICS & BUSINESS	193	187	154	126	101	84	63	45	
	ENGINEERING	144	136	121	106	96	85	74	59	
	ENVIRONMENT/ECOLOGY	260	238	206	185	152	129	102	72	
	GEOSCIENCES	221	188	177	158	137	109	86	63	
	IMMUNOLOGY	343	302	257	222	203	180	134	99	
	MATERIALS SCIENCE	265	282	245	237	206	188	153	122	
	MATHEMATICS	83	81	67	57	47	40	35	27	
	MICROBIOLOGY	247	230	184	180	154	127	100	89	
	MOLECULAR BIOLOGY & GENETICS	501	454	408	339	283	235	178	131	
	MULTIDISCIPLINARY	493	555	431	296	325	185	193	141	
	NEUROSCIENCE & BEHAVIOR	298	276	226	201	169	140	108	82	
	PHARMACOLOGY & TOXICOLOGY	202	182	154	138	121	101	80	60	
	PHYSICS	182	175	154	145	129	114	95	74	
	PLANT & ANIMAL SCIENCE	159	149	126	109	95	79	64	46	
	PSYCHIATRY/PSYCHOLOGY	242	222	187	151	123	104	78	55	
SOCIAL SCIENCES, GENERAL	138	128	109	94	80	69	52	38		
SPACE SCIENCE	268	244	225	199	195	146	124	93		

Essential Science Indicators (ESI)

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 Hot Papers Threshold reveals the minimum number of citations received during the most recent two-month period by the top 0.1% of papers from the past two years.

ESI Thresholds	RESEARCH FIELDS ▲	2018-1	2018-2	2018-3	2018-4	2018-5	2018-6	20
	AGRICULTURAL SCIENCES	9	8	9	8	7	7	
Highly Cited Thresholds	BIOLOGY & BIOCHEMISTRY	16	17	12	16	14	11	
	CHEMISTRY	17	19	18	17	15	14	
Hot Paper Thresholds	CLINICAL MEDICINE	15	16	16	13	14	13	
	COMPUTER SCIENCE	11	12	10	12	9	10	
	ECONOMICS & BUSINESS	9	14	8	10	7	7	
	ENGINEERING	13	13	12	13	11	11	
	ENVIRONMENT/ECOLOGY	12	16	15	14	12	9	
	GEOSCIENCES	11	11	10	10	8	9	
	IMMUNOLOGY	18	25	14	14	9	11	
	MATERIALS SCIENCE	20	25	21	19	18	15	
	MATHEMATICS	6	7	8	6	9	7	
	MICROBIOLOGY	14	12	19	13	13	10	
	MOLECULAR BIOLOGY & GENETICS	21	30	27	28	22	17	
	MULTIDISCIPLINARY	30	18	21	11	9	27	
	NEUROSCIENCE & BEHAVIOR	11	13	11	10	12	9	
	PHARMACOLOGY & TOXICOLOGY	10	10	11	10	9	8	
	PHYSICS	13	15	13	11	12	10	
	PLANT & ANIMAL SCIENCE	8	7	8	7	6	7	
	PSYCHIATRY/PSYCHOLOGY	13	9	8	7	9	8	
	SOCIAL SCIENCES, GENERAL	8	6	7	8	7	6	
	SPACE SCIENCE	22	18	12	45	15	13	

Essential Science Indicators (ESI)

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 ▲	2009	2010	2011	2012	2013	2014	2015	2016
ALL FIELDS	26.42	24.92	22.36	20.10	17.76	15.50	12.86	9.79
AGRICULTURAL SCIENCES	19.44	18.63	16.65	15.00	13.45	11.89	9.94	7.66
BIOLOGY & BIOCHEMISTRY	37.24	33.85	29.73	26.93	23.17	19.73	15.70	11.75
CHEMISTRY	27.61	26.74	25.20	23.78	20.91	19.08	16.22	12.48
CLINICAL MEDICINE	27.72	25.56	22.71	20.43	17.90	15.43	12.84	9.58
COMPUTER SCIENCE	14.79	14.06	14.07	11.64	11.10	10.22	8.94	7.05
ECONOMICS & BUSINESS	21.51	19.78	17.37	14.49	12.65	10.53	8.31	6.06
ENGINEERING	17.23	16.57	15.24	13.80	12.94	11.63	10.19	8.25
ENVIRONMENT/COLOGY	31.92	30.24	26.66	24.06	20.69	17.34	14.20	10.58
GEOSCIENCES	29.89	26.92	25.03	21.85	19.12	15.98	13.03	9.62
IMMUNOLOGY	41.00	37.46	33.07	28.26	25.72	22.05	17.51	13.31
MATERIALS SCIENCE	27.11	28.73	26.21	24.73	22.27	20.81	17.74	14.20
MATHEMATICS	9.98	9.34	8.05	6.84	5.84	4.98	4.27	3.27
MICROBIOLOGY	33.42	31.57	26.21	23.52	21.11	18.43	14.72	11.80
MOLECULAR BIOLOGY & GENETICS	54.77	50.43	45.11	37.13	32.37	27.18	21.43	15.46
MULTIDISCIPLINARY	40.73	39.92	32.66	29.65	30.32	17.92	16.17	12.65
NEUROSCIENCE & BEHAVIOR	39.60	36.58	32.29	28.20	24.37	20.43	16.32	12.28
PHARMACOLOGY & TOXICOLOGY	27.26	25.62	22.26	20.00	17.97	15.37	12.50	9.42
PHYSICS	20.84	19.69	17.74	17.05	14.93	13.35	11.46	9.07
PLANT & ANIMAL SCIENCE	20.53	19.39	16.97	14.80	13.19	11.27	9.05	6.78
PSYCHIATRY/PSYCHOLOGY	30.24	28.08	24.35	20.52	17.43	14.59	11.33	8.01
SOCIAL SCIENCES, GENERAL	16.61	15.51	13.63	11.80	10.52	8.99	7.11	5.19
SPACE SCIENCE	35.01	33.75	30.38	27.97	25.73	21.28	17.56	13.67

Essential Science Indicators (ESI)

Field Baselines

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

Percentiles define levels of citation activity. The larger the minimum number of citations, the smaller the peer group.

Citation Rates	RESEARCH FIELDS	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
	ALL FIELDS										
	0.01%	2,447	2,162	1,791	1,747	1,343	1,124	889	659	429	
	0.10%	736	705	619	542	459	400	314	239	160	
	1.00%	223	211	185	164	142	122	100	76	54	
	10.00%	59	55	50	44	39	34	29	22	16	
	20.00%	35	33	30	27	24	21	18	14	10	
	50.00%	12	12	11	10	9	8	7	6	4	
	AGRICULTURAL SCIENCES										
	0.01%	814	807	586	521	529	317	342	230	145	
	0.10%	395	361	315	242	220	174	139	101	74	
	1.00%	136	141	114	101	90	76	64	49	33	
	10.00%	47	44	40	36	32	28	24	19	13	
	20.00%	29	28	25	23	21	19	16	12	9	
	50.00%	10	10	9	9	8	7	6	5	3	
	BIOLOGY & BIOCHEMISTRY										
	0.01%	4,796	4,121	2,437	4,105	2,436	2,117	1,720	1,016	656	
	0.10%	970	902	760	668	610	477	394	291	184	
	1.00%	279	255	217	197	170	140	112	83	57	
	10.00%	76	71	62	56	48	41	33	25	18	
	20.00%	48	45	39	35	31	26	21	16	12	
	50.00%	20	18	17	15	13	11	9	7	5	
	CHEMISTRY										
	0.01%	2,915	2,299	2,063	2,183	1,514	1,446	1,080	715	469	
	0.10%	788	789	755	701	547	541	444	302	201	
	1.00%	228	222	220	198	172	154	130	96	70	
	10.00%	60	58	54	51	46	41	34	27	20	
	20.00%	37	35	33	31	28	25	22	17	13	
	50.00%	13	13	12	12	11	10	9	7	5	
	CLINICAL MEDICINE										
	0.01%	2,599	2,390	1,962	1,995	1,527	1,284	1,399	976	697	
	0.10%	788	687	578	571	468	415	347	272	187	
	1.00%	228	211	183	161	140	118	101	76	52	
	10.00%	61	56	50	44	39	33	27	21	15	
	20.00%	37	34	31	27	24	21	17	13	9	
	50.00%	13	12	11	10	9	8	7	6	4	

Essential Science Indicators (ESI)

Field Baselines

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

Field Rankings provide 10-year citation rates and aggregate counts of highly cited papers.

Citation Rates	RESEARCH FIELDS ▲	No. OF PAPERS	No. OF CITATIONS	CITATIONS PER PAPER	HIGHLY
	AGRICULTURAL SCIENCES	465,442	4,693,502	10.08	
	BIOLOGY & BIOCHEMISTRY	788,370	14,336,885	18.19	
Percentiles	CHEMISTRY	1,855,706	29,846,797	16.08	
	CLINICAL MEDICINE	2,981,218	41,202,227	13.82	
	COMPUTER SCIENCE	404,970	3,321,248	8.20	
Field Rankings	ECONOMICS & BUSINESS	303,789	2,965,772	9.76	
	ENGINEERING	1,464,226	13,539,081	9.25	
	ENVIRONMENT/ECOLOGY	565,133	7,932,512	14.04	
	GEOSCIENCES	504,088	7,042,095	13.97	
	IMMUNOLOGY	277,837	5,558,665	20.01	
	MATERIALS SCIENCE	973,064	15,431,560	15.86	
	MATHEMATICS	464,392	2,261,269	4.87	
	MICROBIOLOGY	224,130	3,715,071	16.58	
	MOLECULAR BIOLOGY & GENETICS	508,365	12,756,242	25.09	
	MULTIDISCIPLINARY	23,450	429,033	18.30	
	NEUROSCIENCE & BEHAVIOR	552,176	10,678,990	19.34	
	PHARMACOLOGY & TOXICOLOGY	439,396	5,958,241	13.56	
	PHYSICS	1,155,687	13,995,823	12.11	
	PLANT & ANIMAL SCIENCE	793,973	8,155,531	10.27	
	PSYCHIATRY/PSYCHOLOGY	451,371	6,000,267	13.29	
	SOCIAL SCIENCES, GENERAL	1,027,184	8,107,935	7.89	
	SPACE SCIENCE	158,459	3,078,072	19.43	

How to measure the performance of a paper

The screenshot shows a Web of Science article page. The article title is "Soft-template synthesis of mesoporous non-precious metal catalyst with Fe-N-X/C active sites for oxygen reduction reaction in fuel cells". The authors listed are Mun, Y; Kim, MJ; Park, SA; Lee, E; Ye, Y; Lee, S; Seonggyu; Kim, YT; Kim, S; Kim, OH; and Cho, YH. The journal is "APPLIED CATALYSIS B-ENVIRONMENTAL", Volume 222, Pages 191-199, published in March 2018. On the right side, a "Citation Network" box displays "46 Times Cited" in a red-bordered box, with a red arrow pointing to it from a text box below. Below the citation count, there is a "Create Citation Alert" button and a section for "All Times Cited Counts" showing "46 in All Databases".

Web of Science

Clarivate Analytics

Search Search Results Tools Searches and alerts Search History Marked List

SFX Look Up Full Text Full Text from Publisher Export... Add to Marked List

10 of 13,398

Soft-template synthesis of mesoporous non-precious metal catalyst with Fe-N-X/C active sites for oxygen reduction reaction in fuel cells

By: Mun, Y (Mun, Yeongdong)^[1]; Kim, MJ (Kim, Min Jeong)^[2]; Park, SA (Park, Shin-Ae)^[3]; Lee, E (Lee, Eunsung)^[4]; Ye, Y (Ye, Youngjin)^[1]; Lee, S (Lee, Seonggyu)^[1]; Kim, YT (Kim, Yong-Tae)^[3]; Kim, S (Kim, Sungjun)^[2]; Kim, OH (Kim, Ok-Hee)^[5]; Cho, YH (Cho, Yong-Hun)^[6]...More

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APPLIED CATALYSIS B-ENVIRONMENTAL
Volume: 222 Pages: 191-199
DOI: 10.1016/j.apcatb.2017.10.015
Published: MAR 2018
Document Type: Article
[View Journal Impact](#)

Abstract

We synthesized ordered mesoporous Fe/N/C with highly active Fe-N-X/C sites denoted as m-FePhen-C as a non precious metal catalyst (NPC) for oxygen reduction reaction in fuel cells. This was the first study that incorporated a catalyst precursor with Fe-N coordination directly in a simple but efficient assisted soft template method for the synthesis of mesoporous Fe/N/C. The synthesized catalyst (m-FePhen-C) showed a high catalytic activity comparable to that of PVC in half-cell tests, and a membrane electrode assembly (MEA) with an m-FePhen-C cathode exhibited 40% higher power density than that of a commercial MEA.

Citation Network

In Web of Science Core Collection

46
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46 in All Databases

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How can we measure the performance of this paper?

- WOS CC provides the Times Cited count of this article
- How does it compare to the field?
- Is this paper performing better than peer papers?

How to measure the performance of a paper



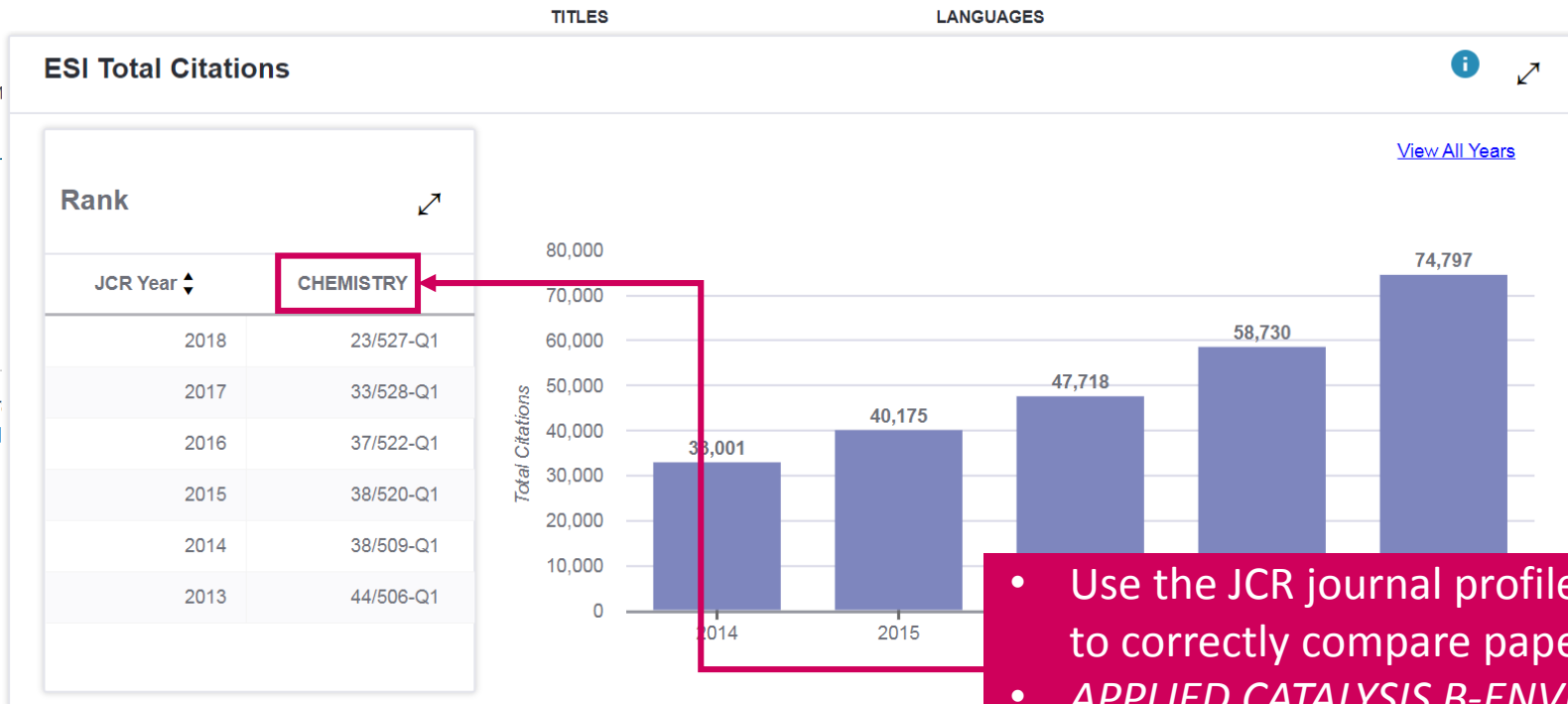
APPLIED CATALYSIS B-ENVIRONMENTAL

ISSN: 0926-3373
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ELSEVIER SCIENCE BV
PO BOX 211, 1000 AE AM
NETHERLANDS

[Go to Journal Table of Contents](#)

Current Year 2017

The data in the two groups covers two years. They detail the performance of the journal in two years for this journal.



- Use the JCR journal profile to identify the ESI category to correctly compare papers in the same field
- *APPLIED CATALYSIS B-ENVIRONMENTAL* is classified in the *Chemistry* ESI category

How to measure the performance of a paper

	RESEARCH FIELDS ▲	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	All Years
Citation Rates	ALL FIELDS	26.42	24.92	22.36	20.10	17.76	15.50	12.86	9.79	6.86	3.63	0.82	13.49
Percentiles	AGRICULTURAL SCIENCES	19.44	18.63	16.65	15.00	13.45	11.89	9.94	7.66	5.15	2.87	0.66	10.08
	BIOLOGY & BIOCHEMISTRY	37.24	33.85	29.73	26.93	23.17	19.73	15.70	11.75	8.19	4.36	0.98	18.19
Field Rankings	CHEMISTRY	27.61	26.74	25.20	23.78	20.91	19.08	16.22	12.48	9.05	4.94	1.11	16.08
	CLINICAL MEDICINE	27.72	25.56	22.71	20.43	17.90	15.43	12.84	9.58	6.52	3.24	0.73	13.82
	COMPUTER SCIENCE	14.79	14.06	14.07	11.64	11.10	10.22	8.94	7.05	5.43	2.86	0.72	8.20
	ECONOMICS & BUSINESS	21.51	19.78	17.37	14.49	12.65	10.53	8.31	6.06	3.98	2.02	0.51	9.76

- Field baselines = baselines are annualized expected citation rates for papers in a research field
- The average citation count for Chemistry papers published in 2018 is 4.94
- The article's citation performance is higher than the average for the field

How to measure the performance of a paper

Citation Rates	RESEARCH FIELDS ▲	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	All Years
ALL FIELDS													
Percentiles	0.01%	2,447	2,162	1,791	1,747	1,343	1,124	889	659	429	222	64	1,308
	0.10%	736	705	619	542	459	400	314	239	160	85	26	420
	1.00%	223	211	185	164	142	122	100	76	54	30	10	126
Field Rankings	10.00%	59	55	50	44	39	34	29	22	16	9	3	32
	20.00%	35	33	30	27	24	21	18	14	10	6	2	18
	50.00%	12	12	11	10	9	8	7	6	4	2	1	5
	AGRICULTURAL SCIENCES												
	0.01%	814	807	586	521	529	317	342	230	145	75	34	496
	0.10%	395	361	315	242	220	174	139	101	74	43	15	216
	1.00%	136	141	114	101	90	76	64	49	33	20	7	83
	10.00%	47	44	40	36	32	28	24	19	13	8	3	26
	20.00%	29	28	25	23	21	19	16	12	9	5	2	15
	50.00%	10	10	9	9	8	7	6	5	3	2	1	5
BIOLOGY & BIOCHEMISTRY													
	0.01%	4,796	4,121	2,437	4,105	2,436	2,117	1,720	1,016	656	371	106	2,031
	0.10%	970	902	760	668	610	477	394	291	184	85	28	530
	1.00%	279	255	217	197	170	140	112	83	57	32	10	155
	10.00%	76	71	62	56	48	41	33	25	18	10	3	41
	20.00%	48	45	39	35	31	26	21	16	12	7	2	24
	50.00%	20	18	17	15	13	11	9	7	5	3	1	8
CHEMISTRY													
	0.01%	2,915	2,299	2,063	2,183	1,514	1,446	1,080	715	469	221	80	1,564
	0.10%	788	789	755	701	547	541	444	302	201	107	35	510
	1.00%	228	222	220	198	172	154	130	96	70	39	12	147
	10.00%	60	58	54	51	46	41	34	27	20	12	4	37
	20.00%	37	35	33	31	28	25	22	17	13	7	2	21
	50.00%	13	13	12	12	11	10	9	7	5	3	1	7

- Measure the performance of a paper using the percentiles.
- A *Chemistry* Highly Cited Paper published in 2018 must receive over 39 cites.
- Our paper currently has 46 citations.

Web of Science integration with Essential Science Indicators

Web of Science

Clarivate Analytics

Search

Tools ▾ Searches and alerts ▾ Search History Marked List

Results: 57
(from Web of Science Core Collection)

You searched for: TOPIC: (pvc or "Polyvinyl chloride") ...More

Create an alert

Sort by: Date ▾ Times Cited Usage Count Relevance More ▾

1 of 6

Select Page Export... Add to Marked List

1. **Microplastics in freshwaters and drinking water: Critical review and...**
By: Koelmans, Albert A.; Nor, Nur Hazimah Mohamed; Hermesen, Enya; et al.
WATER RESEARCH Volume: 155 Pages: 410-422 Published: MAY 15 2019
S-F-X Free Full Text from Publisher View Abstract ▾

2. **Microplastics occurrence in the Tyrrhenian waters and in the gastrointest... species of seabreams**
By: Savoca, S.; Capillo, G.; Mancuso, M.; et al.
ENVIRONMENTAL TOXICOLOGY AND PHARMACOLOGY Volume: 67 Pages: 35-41 Published: APR 2019
S-F-X Full Text from Publisher View Abstract ▾

Refine Results

Search within results for...

Filter results by:

- Highly Cited in Field (57)
- Hot Papers in Field (5)
- Open Access (8)

Hot Paper

Highly Cited Paper

Highly Cited Papers

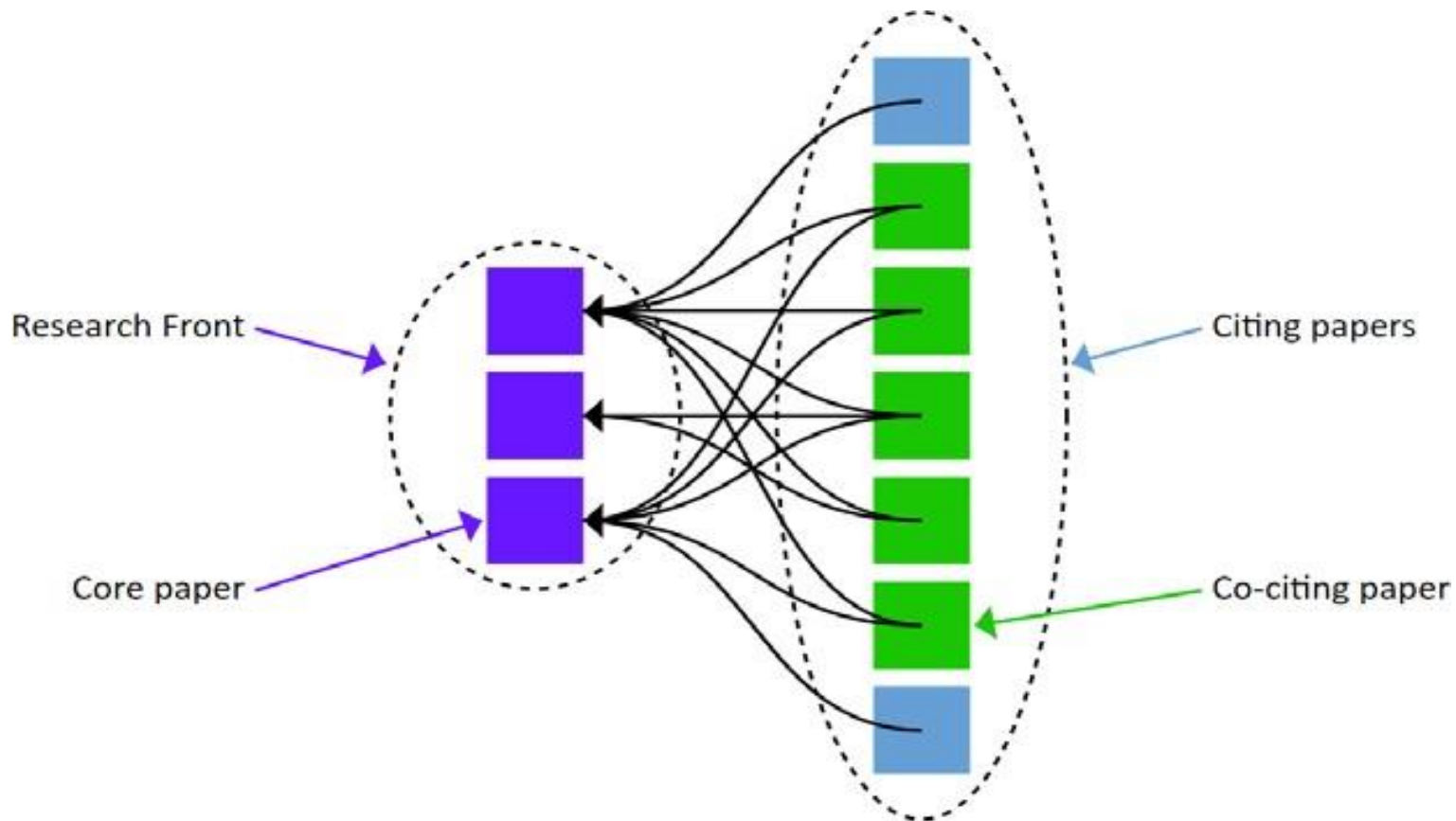
Papers from the most recent ten years, which have reached the top 1% citation threshold for their designated publication year and subject category.

Hot Papers

Papers from the most recent two years, which have reached the top .1% citation threshold for their category. This indicates an unusually high number of citations soon after publication.

Essential Science Indicators

Research Fronts



A research front is a **cluster of highly cited papers over a five-year period** - referred to as "core papers" - in a specialized topic defined by a cluster analysis.

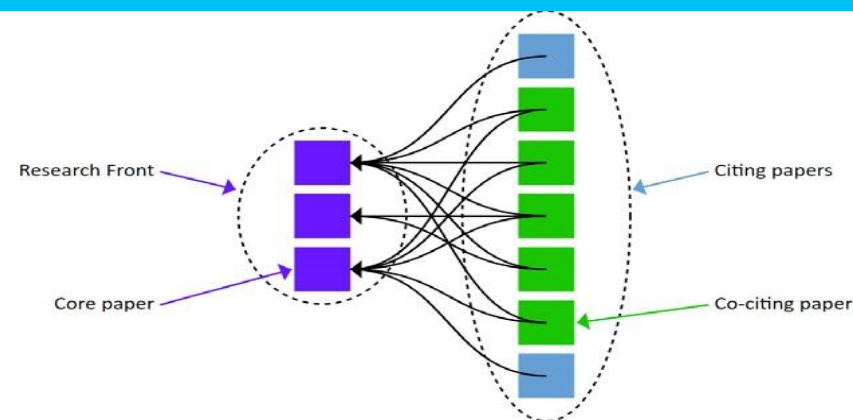
Identifying research fronts involves manipulating the co-cited papers in order to group together those that are strongly related.

Essential Science Indicators

Research Fronts

- Research front analysis will not identify all research areas or all the papers in an area. However, it can assist in **identifying areas where important work is being done and where the scientific community is focusing its attention.**
- A measure of association between highly cited papers is used to form the clusters. That measure is the number of times pairs of papers have been co-cited, that is, the number of later papers that have cited both of them. Clusters are formed by selecting all papers that can be linked together by a specified co-citation threshold.
- The clusters are named using a semi-automatic process based on frequently occurring title words and phrases.

- **Field Classification:** Research fronts are assigned to the 22 broad fields based on the field of the most frequently occurring journal in the front.
- **Inclusion Criteria:** Only those fronts meeting a minimum size threshold and high average currency are included in Essential Science Indicators. Currency is determined by calculating the mean of the years of publications of the highly cited papers.



ESI Live Demo

Search for Highly Cited Institutions by discipline (Top 1%)

Top Papers by Institutions

Results List: Institutions

Map View by Top / Hot / Highly Cited Papers [Show Visualization +](#)

Report View by Selection [Customize](#)

Filter Results By: Changing the filter will remove current filters. [Add Filter »](#)

Include Results: Top Papers [Clear](#) [Save](#)

[Back](#) Search Fields

- + Agricultural Sciences
- + Biology & Biochemistry
- + Chemistry
- + Clinical Medicine
- + Computer Science
- + Economics & Business
- + Engineering
- + Environment/Ecology
- + Geosciences
- + Immunology
- + Materials Science
- + Mathematics
- + Microbiology

Web of Science Documents	Cites	Cites/Paper
418,428	11,760,134	28.11
231,756	7,881,529	34.01
413,462	7,031,708	17.01
360,621	6,730,000	
153,982	5,242,000	
216,765	5,175,000	
181,370	4,608,343	25.41

- Results List - Select 'Institutions'
- Add Filter - Select 'Research Field'
- Select field of interest
- Include Top Papers (Highly Cited & Hot Papers), or just Highly Cited or Top Papers

Search for Highly Cited Countries by discipline (top 50%)

The screenshot displays the 'Top Papers by Territories' interface. On the left, the 'Results List' is set to 'Countries/Regions'. A 'Filter Results By' dropdown is open, showing a list of research fields with plus signs next to each: Agricultural Sciences, Biology & Biochemistry, Chemistry, Clinical Medicine, Computer Science, Economics & Business, Engineering, Environment/Ecology, Geosciences, Immunology, Materials Science, Mathematics, and Microbiology. The main table shows data for the USA, with columns for 'Cites', 'Cites/Paper', and 'Top Papers'. A 'Back' button is visible above the search fields list.

Countries/Regions	Web of Science Documents	Cites	Cites/Paper	Top Papers
USA	4,297,801	84,304,594	19.62	78,271
	510	33,430,116	11.68	34,589
	776	21,824,175	20.22	24,071
	118	21,356,189	18.5	
	715	14,312,976	18.0	
	791	13,432,137	18.5	
	433	12,080,752	17.0	
	211	11,897,668	13.5	
	309	11,200,337	17.7	
	136	10,050,786	16.3	
	338	9,550,956	22.48	10,771
	582	7,435,259	23.49	8,741

- Results List - Select 'Countries'
- Add Filter - Select 'Research Field'
- Select field of interest
- Include Top Papers (both Highly Cited and Hot Papers), or just Highly Cited or Top Papers

Search for Highly Cited Countries by discipline (top 50%)

Top Papers by Territories

Results List: Countries/Regions

Filter Results By: **Physics**

Include Results For: Top Papers

Map View by Top / Hot / Highly Cited Papers [Show Visualization +](#)

Report View by Selection [Customize](#)

Total: 91	Countries/Regions	Web of Science Documents	Cites	Cites/Paper	Top Papers
1	USA	238,246	4,751,743	19.94	5,541
2	CHINA MAINLAND	267,727	2,719,324	10.16	2,771
3	GERMANY (FED REP GER)	118,710	2,218,422	18.69	2,301
4	FRANCE	82,321	1,395,059		
5	ENGLAND	65,734	1,325,249		
6	JAPAN	102,081	1,311,290		
7	ITALY	57,138	964,845		
8	SPAIN	42,242	823,214		
9	RUSSIA	91,879	788,381		
10	SWITZERLAND	30,853	742,716	24.07	1,081
11	CANADA	33,109	646,164	19.52	801
12	SOUTH KOREA	51,229	642,840	12.55	541

- Results List – Select ‘Countries’
- Add Filter- Select ‘Research Field’
- Select field of interest
- Include Top Papers (both Highly Cited and Hot Papers), or just Highly Cited or Top Papers

Search for Highly Cited Authors by discipline (top 1%)

Top Papers by Authors

Results List: Authors

Map View by Top / Hot / Highly Cited Papers [Show Visualization +](#)

Report View by Selection [Customize](#)

Filter Results By: Authors

Changing the filter will change the current filters.

[Add Filter »](#)

Include Results: Top Papers

[Clear](#) [Save](#)

[Back](#) **Search Fields**

- + Agricultural Sciences
- + Biology & Biochemistry
- + Chemistry
- + Clinical Medicine
- + Computer Science
- + Economics & Business
- + Engineering
- + Environment/Ecology
- + Geosciences
- + Immunology
- + Materials Science
- + Mathematics
- + Microbiology

Cites	Cites/Paper	Top Papers
999,042	14.67	1,061
960,687	13.94	981
941,758	16.71	1,161
865,181	14.60	891
818,347		
781,575		
739,523		
721,214		
687,786		
599,792		
591,509	16.87	771
588,724	16.05	661

- Results List - Select 'Author'
- Add Filter - Select 'Research Field'
- Select field of interest
- Include Top Papers (both Highly Cited and Hot Papers), or just Highly Cited or Top Papers

Identify areas of excellence for individual institutions

Top Papers by Institutions

Results List
Institutions

Filter Results By ?
Changing the filter field removes all current filters.
Add Filter »
× POLYTECHNIC UNIVERSITY OF BUCHAREST

Include Results For
Top Papers

Clear Save Criteria

Map View by Top / Hot / Highly Cited Papers [Show Visualization +](#)

Report View by Selection [Customize](#)

Total:	Institutions	Countries/Regions	Web of Science Documents	Cites	Cites/Paper
1	POLYTECHNIC UNIVERSITY OF BUCHAREST	ROMANIA	8,897	85,305	9.59

- Results List - Select 'Research Field'
- Add Filter - Select 'Institutions'
- Enter university name
- Include Top Papers (both Highly Cited and Hot Papers), or just Highly Cited or Top Papers

View Ranking for individual institutions in ESI DISCIPLINE

Top Papers by Institutions

Results List: Institutions

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

Include Results For: Top Papers

Clear Save Criteria

Map View by Top / Hot / Highly Cited Papers [Show Visualization +](#)

Report View by Selection [Customize](#)

Total: 752	Institutions	Countries/Regions	Web of Science Documents	Cites	Cites/Paper
501	POLYTECHNIC UNIVERSITY OF BUCHAREST	<input type="checkbox"/> Sort Ascending <input type="checkbox"/> Sort Descending <input checked="" type="checkbox"/> Filters	1,470	42,241	28.74
729	UNIVERSITY OF BUCHAREST			22,877	13.29

bucharest

- Results List - Select 'Institutions'
- Add Filter - Select 'Research Field'
- Enter 'Physics'
- Add filter to institutions list

Top Papers

Papers by Research Field

Sort By Citations Customize Documents 1 - 10 of 110

Citation Trends

Documents

Filter Results By ?
Add Filter »
POLYTECHNIC UNIVERSITY OF BUCHAREST

Include Results For
Top Papers

Clear Save Criteria

1	OBSERVATION OF A NEW PARTICLE IN THE SEARCH FOR THE STANDARD MODEL HIGGS BOSON WITH THE ATLAS DETECTOR AT THE LHC	Times Cited: 4,236
By: AAD, G; ABAJYAN, T; ABBOTT, B; et.al Source: PHYSICS LETTERS B 716 (1): 1-29 SEP 17 2012 Research Fields: PHYSICS		
2	THE ATLAS SIMULATION INFRASTRUCTURE	Times Cited: 812
By: AAD, G; ABBOTT, B; ABDALLAH, J; et.al Source: EUROPEAN PHYSICAL JOURNAL C 70 (3): 823-874 DEC 2010 Research Fields: PHYSICS		
3	MULTI-MESSENGER OBSERVATIONS OF A BINARY NEUTRON STAR MERGER	Times Cited: 791 Research Front
By: ABBOTT, BP; ABBOTT, R; ABBOTT, TD; et.al Source: ASTROPHYSICAL JOURNAL LETTERS 848 (2): - OCT 20 2017 Research Fields: SPACE SCIENCE		
4	COMBINED MEASUREMENT OF THE HIGGS BOSON MASS IN PP COLLISIONS AT ROOT S=7 AND 8 TEV WITH THE ATLAS AND CMS EXPERIMENTS	Times Cited: 710 Research Front
By: AAD, G; ABBOTT, B; ABDALLAH, J; et.al Source: PHYSICAL REVIEW LETTERS 114 (19): - MAY 14 2015 Research Fields: PHYSICS		
5	OBSERVATION OF A CENTRALITY-DEPENDENT HIGGS BOSON PRODUCTION CROSS SECTION IN PP COLLISIONS AT ROOT S(NN)=2.76 TEV	
By: AAD, G; ABBOTT, B; ABDALLAH, J; et.al Source: PHYSICAL REVIEW LETTERS 108 (12): - JUN 11 2012 Research Fields: PHYSICS		
6	MEASUREMENTS OF THE HIGGS BOSON PRODUCTION CROSS SECTION AND CONSTRAINTS ON ITS COUPLINGS FROM THE LHC PP COLLISION DATA AT ROOT S=7 AND 8 TEV	
By: AAD, G; ABBOTT, B; ABDALLAH, J; et.al Source: JOURNAL OF HIGH ENERGY PHYSICS 2012 (12): - DEC 2012 Research Fields: PHYSICS		

Sort By Citations 1 - 10 of 110 Show 10 per page

- Papers are ordered by Citations, highest to lowest
- Each paper links to its corresponding WOS record
- Limit by Highly Cited or Hot Papers

(Research Front = a group of highly cited papers, referred to as "core papers," in a specialized topic defined by a cluster analysis)

View Rankings for individual countries

Top Papers by Research Fields

Results List
Research Fields

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

Include Results For
Top Papers

Clear Save Criteria

Map View by Top / Hot / Highly Cited Papers Show Visualization +

Report View by Selection Customize

Total: 23	Research Fields	Web of Science Documents	Cites	Cites/Paper	Top Papers
1	PHYSICS	9,861	138,518	14.05	18
2	CLINICAL MEDICINE	8,629	138,511	16.05	24
3	CHEMISTRY	15,259	107,090	7.02	2
4	MATERIALS SCIENCE	10,315	56,009	5.43	
5	ENGINEERING	6,254	55,529	8.88	5
6	MATHEMATICS	7,709	36,728		
7	ENVIRONMENT/ECOLOGY	4,406	33,191		
8	SPACE SCIENCE	531	28,716		
9	MOLECULAR BIOLOGY & GENETICS	2,363	24,810		
10	GEOSCIENCES	2,038	23,914		
11	BIOLOGY & BIOCHEMISTRY	2,576	20,517	7.96	

- Results List - Select 'Research Field'
- Add Filter - Select 'Countries'
- Enter 'Romania'
- Include Top Papers (both Highly Cited and Hot Papers), or just Highly Cited or Top Papers

Export Highly Cited/Hot Papers lists

The screenshot displays the InCites Essential Science Indicators interface. At the top, there are navigation tabs for 'Indicators', 'Field Baselines', and 'Citation Thresholds'. Below these, there are sub-tabs for 'Indicators' and 'Citation Trends'. The main content area is titled 'Papers by Research Field'. On the left, there is a sidebar with 'Citation Trends', 'Documents', and 'Filter Results By' (with a filter for 'POLYTECHNIC UNIVERSITY OF BUCHAREST'). Below the filter is an 'Include Results For' dropdown set to 'Highly Cited Papers'. The main list shows three papers, sorted by 'Citations'. A red box highlights a download icon and a 'Select download format' menu with options for 'CSV' and 'XLS'.

InCites Essential Science Indicators Clarivate Analytics

Indicators | Field Baselines | Citation Thresholds

Indicators | Citation Trends

Papers by Research Field

Sort By: Citations | Customize Documents | 10 of 90

1	OBSERVATION OF A NEW PARTICLE IN THE SEARCH FOR THE STANDARD MODEL HIGGS BOSON WITH THE ATLAS DETECTOR AT THE LHC	Times Cited: 4,236
By: AAD, G; ABAJYAN, T; ABBOTT, B; et.al Source: PHYSICS LETTERS B 716 (1): 1-29 SEP 17 2012 Research Fields: PHYSICS		
2	THE ATLAS SIMULATION INFRASTRUCTURE	Times Cited: 812
By: AAD, G; ABBOTT, B; ABDALLAH, J; et.al Source: EUROPEAN PHYSICAL JOURNAL C 70 (3): 823-874 DEC 2010 Research Fields: PHYSICS		
3	COMBINED MEASUREMENT OF THE HIGGS BOSON MASS IN PP COLLISIONS AT ROOT	Times Cited: 710

Save Reports

Top Papers by Institutions

Results List: Institutions

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

Include Results For: Top Papers

Clear Save Criteria

Map View by Top / Hot / High

Report View by Selection

Total: 752

	Institutions				
1	UNITED STATES DEPARTMENT OF ENERGY (DOE)			1,077,059	23.39
2	CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE (CNRS)	FRANCE	58,604	1,073,437	18.32
3	UNIVERSITY OF CALIFORNIA SYSTEM	USA	31,268	859,600	27.49
4	CHINESE ACADEMY OF SCIENCES	CHINA MAINLAND	63,563	827,750	13.02
5	MAX PLANCK SOCIETY	GERMANY (FED REP GER)	24,239	613,621	25.32
6	HELMHOLTZ ASSOCIATION	GERMANY (FED REP GER)	26,549	537,036	20.23
7	UNIV PARIS SACLAY COMUE	N/A	24,775	527,511	21.29

Show Visualization +

Customize

Save Selection

Please specify a name for your selections:

Save Cancel

Export: PDF, CSV or Excel

The screenshot displays the 'Top Papers by Institutions' page in the Web of Science interface. The page is divided into several sections: a top navigation bar with 'Indicators', 'Field Baselines', and 'Citation Thresholds'; a left sidebar with filter options; and a main content area with a table of top papers. A red box highlights a dropdown menu for selecting the download format, which includes PDF, CSV, and XLS options.

Indicators | **Field Baselines** | **Citation Thresholds**

Indicators

Top Papers by Institutions

Results List: Institutions

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

Include Results For: Top Papers

Clear | Save Criteria

Map View by Top / Hot / Highly Cited Papers

Report View by Selection [Customize](#)

Total: 752	Institutions	Countries/Regions	Web of Science Documents	Cites	Cites/Paper
1	UNITED STATES DEPARTMENT OF ENERGY (DOE)	USA	46,045	1,077,059	23.39
2	CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE (CNRS)	FRANCE	58,604	1,073,437	18.32
3	UNIVERSITY OF CALIFORNIA SYSTEM	USA	31,268	859,600	27.49
4	CHINESE ACADEMY OF SCIENCES	CHINA MAINLAND	63,563	827,750	13.02
5	MAX PLANCK SOCIETY	GERMANY (FED REP GER)	24,239	613,621	25.32
6	HELMHOLTZ ASSOCIATION	GERMANY (FED REP GER)	26,549	537,036	20.23
7	UNIV PARIS SACLAY COMUE	N/A	24,775	527,511	21.29

CURSURI ONLINE | MARTIE

DESCOPERĂ INTEGRAREA DINTRE WEB OF SCIENCE CORE COLLECTION ȘI DERWENT INNOVATIONS INDEX

Luni 23 martie, ora 16.00-16.45

În cadrul acestei sesiuni, specialiștii noștri vor prezenta modul în care Derwent Innovations Index (DII) facilitează căutarea rapidă și precisă a brevetelor (patents), permițând efectuarea căutări de brevete și citări pe diferite tipuri de invenții. Mai mult, descoperă integrarea între Web of Science Core Collection și Derwent Innovations Index - o nouă experiență de cercetare care combină papers și brevete.

[INREGISTRARE](#) 

IDENTIFICĂ CERCETAREA DE TOP CU ESSENTIAL SCIENCE INDICATORS (ESI)

Vineri 27 martie, ora 16.00-16.45

Essential Science Indicators (ESI) este un instrument analitic care te ajută să identifici cercetarea de top în Web of Science Core Collection. Află cum Essential Science Indicators oferă o acoperire aprofundată pentru a analiza și a evalua performanța cercetării, pentru a identifica tendințele și a evalua potențiali angajați și colaboratori. În plus, află mai multe despre Research Fronts, un instrument unic de analiză a citărilor.

[INREGISTRARE](#) 

OBȚINE INFORMAȚIILE DE CARE AI NEVOIE CU PRIVIRE LA CORONAVIRUS

Luni 30 martie, ora 11.00 -11.45

Poate istoria coronavirusurilor fi urmărită prin navigarea citărilor? Cum pot identifica cea mai bună căutare pe acest subiect? Ce reviste ar trebui să citesc și unde să public? Cum pot să îmi organizez rezultatele și să identific finanțatorii potriviți?

Prin acest webinar evidențiem câteva dintre instrumentele disponibile pentru cercetători pentru a descoperi și înțelege pe deplin un subiect de cercetare.

[INREGISTRARE](#) 

CURSURI ONLINE | APRILIE

DESCOPERĂ UNIFICAREA DATELOR ÎN WEB OF SCIENCE

Joi 9 aprilie, ora 15.00-15.45

În timpul acestei sesiuni, vezi cum unificarea numelor instituțiilor ajută la agregarea variantelor complexe în Web of Science.

Mai mult, descoperă opțiuni suplimentare de unificare a datelor Web of Science pentru numele de autor, agenții de finanțare, editori, etc.

[INREGISTRARE](#) 

NOUȚĂȚI JOURNAL CITATION REPORTS ȘI INCITES BENCHMARKING & ANALYTICS

Joi 16 aprilie, ora 15.00-15.45

Noul Journal Citation Reports oferă un sistem obiectiv pentru a evalua revistele de top din lume, prin noi date JCR, fila All Years în pagina de profil și multe altele.

În plus, descoperă noile funcții disponibile în InCites Benchmarking & Analytics: unificarea editorilor, Organization Report, schemele de categorii și îmbunătățiri UI.

[INREGISTRARE](#) 

APROFUNDEAZĂ CUNOȘTIINȚELE ÎN DOMENIUL TĂU DE CERCETARE CU WEB OF SCIENCE

Vineri 24 aprilie, ora 15.00-15.45

De la identificarea cercetării relevante în domeniul tau până la un ghid util la revistele academice care contează, descoperă sfaturi cheie care îmbunătățesc căutarea în Web of Science.

[INREGISTRARE](#) 

ACCESEAZĂ ARTICOLE PRINTR-UN SINGUR CLIC CU PLUGINUL KOPERNIO

Marți 28 aprilie, ora 16.00-16.45

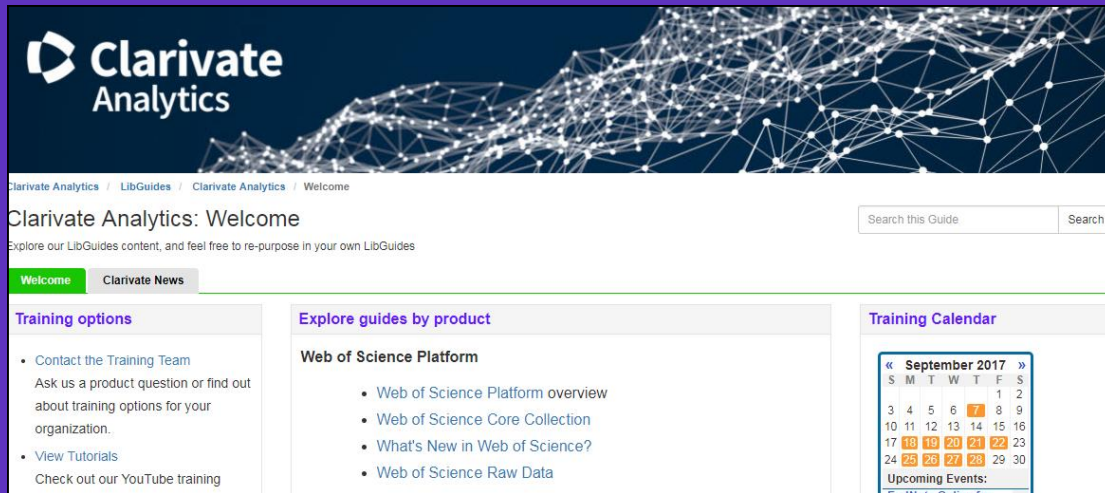
Economisește timp accesând PDF-uri cu pluginul gratuit Kopernio. Află totul despre Kopernio și noile caracteristici: opțiunea Premium, Kopernio în Web of Science, beneficiile Kopernio Institutional Dashboard pentru bibliotecari, și multe altele!

[INREGISTRARE](#) 

More resources

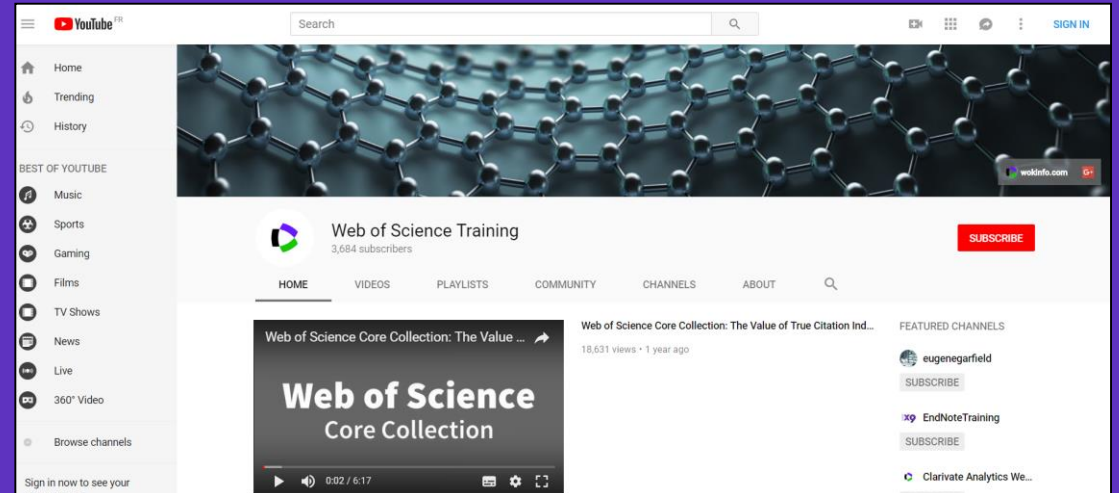
Clarivate Libguides

<http://clarivate.libguides.com/home>



Web of Science You Tube Channel

<https://www.youtube.com/user/WoSTraining>



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Vă mulțumesc!

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