Why Web of Science Core Collection?

Web of Science Core Collection offers a true citation index

The power of our citation indexing is exemplified by displayed cited references within a search, offering you the most impactful research to help guide you to a profound discovery. Our objective evaluation and selection criteria ensures you get the most carefully curated content so you can focus on what you do best — research discovery. Find, analyze, and share the most relevant information in science, social science, arts and humanities.

- Find high-impact articles and conference proceedings
- Uncover relevant results in related fields
- Discover emerging trends that help you pursue successful research and grant applications
- Identify potential collaborators with significant citation records

The complete picture

Our careful selection process ensures you get the most reliable, integrated, multidisciplinary information from the global research community to complete your research picture.

And it’s all connected through standard vocabulary, linked content and citation metrics from multiple sources to provide.

- Objectively selected content, indexed cover-to-cover
- The world’s most credible citation databases
- Powerful search and navigation options
- Seamless, integrated search across all content
- Consistent indexing with a common vocabulary
- Convenient results management options
- Integration with ResearcherID
- Bibliography creation using EndNote®
- 250 + subject categories
- More than 100 years of backfiles

Comprehensive coverage

Embedded tools help you track research and citations across time — showing the value and impact of research — and bring to light references and articles of interest. Powerful analysis tools quickly add context and insight to search results and guide you through the discovery process.

All Authors Captured: We capture full names for 100% of authors on every paper, and associate these with their address and affiliation in a database, which we maintain. So it doesn’t matter if you’re author number 1 or 200, you’re covered.

Comprehensive and Relevant Coverage: Every journal included in the world’s leading citation index has met the high standards of an objective evaluation process, eliminating clutter and delivering accurate, meaningful and timely data.

Cited Reference Searching: Track prior research and monitor current developments, see who is citing your work, measure the influence of colleagues’ work, and follow the hottest research.

Insightful Analysis Options: Find hidden trends and patterns, gain insight into emerging fields of research, and identify leading researchers, institutions and journals with our Analyze Tool.

Wide-ranging Proceedings Content: Track the influence and impact of individual proceedings papers, conferences as a whole, or the conference series.

Related Records®: Enhance the power of cited reference searching by searching across disciplines for all the articles that have cited references in common.

Times Cited: Discover a paper’s influence by linking to all the papers in which it has been cited. Leverage the foundation of 100 years of backfiles to connect research through shared citations to seminal works.

Full-text Links: Access publishers’ full-text articles directly.

Open Access: Indicators now included for articles from Gold and Green Open Access journals. Analyze results to limit to Open Access or non-Open Access journals.

Alerting and RSS Feeds: Keep up-to-date with the information that matters to you by saving general, cited reference and chemical structure searches as email alerts. Or set up RSS feeds for saved searches and citation alerts.
Identify collaborators, key opinion leaders and rising research stars

Advanced, easy to use search features in Web of Science allow you to quickly identify the people and universities working in specific research fields and technology areas, right across the globe. Funding acknowledgment data allows you to see who is investing in research in which areas. Further, our Essential Science Indicators and analytics enable you to highlight areas where research is increasing.

The foundation of the Web of Science platform is the Web of Science Core Collection. Still comprised of 100 years of valuable research, fully indexed and cross-searchable.

Search and Refine By Discipline, Content Type, or Database

More than just science, get the subject-specific, curated content you need from our complete index of databases.

Regional citation indices

Make connections to the broader research landscape with the addition of the KCI Korean Journal Database, the SciELO Citation Index and the Chinese Science Citation Database. Get a more complete global picture by discovering new insights from research in South Korea, Latin America, Spain, Portugal, the Caribbean, South Africa and China. Search and view critically important regional content with international impact to get a comprehensive picture of the influencers and drivers of regional research in every discipline.

Number of indexed journals per Web of Science edition (all years)
Features

Analyze tool
The Analyze Tool helps you discover trends and patterns that aren’t immediately apparent, yet are vital to the total research picture. Now you can analyze all of your results to see exactly who the top authors are within your area of interest, the top institutions, the journals publishing most of the information you seek, and more. And you’ll be able to see broad trends that indicate what topics are currently hot, and trace the history of particular areas of study.

Related records
Related Records allows you to search across disciplines to discover information often missed through keyword searches alone. Track the influence and impact of your research; follow the history or methodology of an idea from its first mention to the present day.

Citation report
Citation Report now captures citation activity and identifies citation trends graphically within and across all citation resources on Web of Science — including the Core Collection, BIOSIS Citation Index, and Chinese Science Citation Database. You can instantly create formatted reports and view vital citation information for an individual or an institution, such as sums of Times Cited, average citations per item and year, number of results found, and the h-index.

Citation mapping
Citation Mapping creates a visual representation of citation relationships. Track an article’s cited and citing references through two generations to discover an article’s wider relationships — available for Web of Science Core Collection, BIOSIS Citation Index, and Chinese Science Citation Database.

Usage reporting
Web of Science usage reporting is COUNTER compliant and provides library administrators with a flexible interactive interface to view usage data for all their Clarivate Analytics products and services. They can also create customized reports and export to a variety of formats.

InCites Benchmarking & Analytics
InCites is our citation-based research evaluation tool. It lets you effectively manage research through analyses of productivity and benchmarking of output against local, regional and global peers. The new InCites delivers a re-engineered research analytics platform for the research community.

- Monitor the scientific advances of competitors and peers
- Benchmark research with national and international standards
- Measure the performance of R&D collaborations between university-industry synergies
- Pinpoint the corporate collaborations supported by funding bodies
- Find and set trends in research intensive areas
- Identify innovators in science
- Discover how innovative research is adopted and diffused within the scientific world

| +56 million | Number of Web of Science Core Collection publications you can analyze in InCites Benchmarking & Analytics. |
| +9,100      | Number of institutions worldwide you can analyze in InCites Benchmarking & Analytics (universities, companies, government agencies, etc.). |
| 37          | The time window for research analysis in InCites. |
This report summarizes the current state of Romanian research, using data and tools from Clarivate Analytics’ Web of Science and InCites Benchmarking & Analytics. All insights presented have been derived from Web of Science Core Collection (search performed in April 2018).

InCites Benchmarking & Analytics has been used for additional reporting (documents published after 1980 and indexed in the Web of Science Core Collection – Emerging Sources Citation Index not included).
Between 2000 - 2007 Romanian research output followed a continuous positive path. An important spike was registered in 2008, one year after the country’s accession in the European Union: 10,211 papers were produced, compared to 7,818 in 2007.

Between 2007 - 2017, research output doubled, from 7,818 papers in 2007 to 15,711 papers in 2017, and another spike was registered in 2015 when a record number of 19,011 papers were published.

Covering international research back to 1900, the Web of Science Core Collection supports analysis of long-term trends over time, making it an ideal tool to assess whether a particular research output is growing or declining.

A positive trend in Open Access publications was registered starting the year 2000. Out of the total number of documents published by Romanian organizations in 2000, 4% were Open Access. In 2017, 27% of papers published were Open Access.
The national comparisons graph (number of documents vs. Impact) shows research output as measured by the number of publications produced by Romania and nearest EU-28 neighbours - between 2013-2017. When assessing the volumes of research output at the institutional and/or national level, certain factors need to be considered such as the publication practices and the fields of research that an institution/country is active in. *Category Normalized Citation Impact (CNCI)* provides a normalized comparison on the research area of each publication, where 1 is the world average, result above 1 means better than average normalized value and below 1 means below the average.

Romanian publications account for 2% of the total documents published by EU 28 countries between 2013-2017. With a Category Normalized Citation Impact (CNCI) of 0.91, Romania is just below the world average (of 1) and EU-28 (of 1.16).
**ROMANIAN ORGANIZATIONS (2013-2017)**

The bar graph below provides details about the top 10 Romanian organizations, measured by the number of documents produced per organization between 2013-2017. With 8,485 papers, *Polytehnic University of Bucharest* is the number one research output producer, followed by *Babes Bolyai University from Cluj-Napoca*, with 5,980 papers, and *University of Bucharest* with 5,752 papers.

![Bar graph showing top 10 Romanian organizations by research output (2013-2017)].

The bar graph below shows the *Category Normalized Citation Impact* of the top 10 Romanian organizations (by number of documents produced between 2013-2017). Among these organizations, *Polytehnic University of Timisoara* has the highest impact.

Between 2013-2017 Romanian organizations have published 8,284 documents in Clinical Medicine, 6,944 papers in Chemistry and 4,616 papers in Physics – top 3 Research areas by number of documents. A positive evolution in the number of papers was registered in all the Research Areas.

The table below lists the Romanian organizations with the highest number of papers and Category Normalized Citation Impact in the field of Clinical Medicine (documents published between 2013-2017). Babes Bolyai University from Cluj-Napoca has a lower number of papers but a higher impact compared to University of Oradea.

The table below lists the journals in which authors affiliated to Romanian organizations have published the most between 2013-2017 - ranked by the number of papers each journal published.

<table>
<thead>
<tr>
<th>Name</th>
<th>Web of Science Documents</th>
<th>Times Cited</th>
<th>% Docs Cited</th>
<th>Category Normalized Citation Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>REVISTA DE CHIMIE</td>
<td>2090</td>
<td>3897</td>
<td>56.36</td>
<td>0.3</td>
</tr>
<tr>
<td>ROMANIAN JOURNAL OF MORPHOLOGY AND EMBRYOLOGY</td>
<td>863</td>
<td>1325</td>
<td>51.33</td>
<td>0.21</td>
</tr>
<tr>
<td>ENVIRONMENTAL ENGINEERING AND MANAGEMENT JOURNAL</td>
<td>663</td>
<td>1417</td>
<td>59.13</td>
<td>0.26</td>
</tr>
<tr>
<td>FARMACIA</td>
<td>591</td>
<td>1225</td>
<td>67.68</td>
<td>0.43</td>
</tr>
<tr>
<td>JOURNAL OF BIOTECHNOLOGY</td>
<td>575</td>
<td>33</td>
<td>4.87</td>
<td>1.52</td>
</tr>
<tr>
<td>MATERIALE PLASTICE</td>
<td>549</td>
<td>943</td>
<td>57.19</td>
<td>0.23</td>
</tr>
<tr>
<td>ROMANIAN REPORTS IN PHYSICS</td>
<td>460</td>
<td>1231</td>
<td>53.26</td>
<td>0.45</td>
</tr>
<tr>
<td>ROMANIAN BIOTECHNOLOGICAL LETTERS</td>
<td>419</td>
<td>303</td>
<td>33.17</td>
<td>0.1</td>
</tr>
<tr>
<td>JOURNAL OF ENVIRONMENTAL PROTECTION AND ECOLOGY</td>
<td>413</td>
<td>681</td>
<td>56.17</td>
<td>0.22</td>
</tr>
<tr>
<td>OSTEOPOROSIS INTERNATIONAL</td>
<td>410</td>
<td>7</td>
<td>1.22</td>
<td>0.1</td>
</tr>
</tbody>
</table>

% Documents Cited
Percentage of publications that have been cited one or more times.

Category Normalized Citation Impact (CNCI)
calculated by dividing the actual count of citing items by the expected citation rate for documents with the same document type, year of publication and subject area.


The table below shows the Romanian authors who published the highest number of papers between 2013-2017. The rank presented in the table is arranged by publication volume, and the top 10 Romanian authors are all affiliated to Horia Hulubei National Institute of Physics & Nuclear Engineering. The Romanian author with the highest number of papers is Alexandra Tudorache with 477 documents published between 2013-2017.

<table>
<thead>
<tr>
<th>Name</th>
<th>Rank</th>
<th>Affiliation</th>
<th>Web of Science Documents</th>
<th>Times Cited</th>
<th>% Docs Cited</th>
<th>Highly Cited Papers</th>
<th>% International Collaborations</th>
<th>H-Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tudorache, Alexandra</td>
<td>1</td>
<td>Horia Hulubei National Institute of Physics &amp; Nuclear Engineering</td>
<td>477</td>
<td>9066</td>
<td>88.05</td>
<td>32</td>
<td>99.16</td>
<td>46</td>
</tr>
<tr>
<td>Alexa, Calin</td>
<td>2</td>
<td></td>
<td>473</td>
<td>9109</td>
<td>87.74</td>
<td>35</td>
<td>99.15</td>
<td>46</td>
</tr>
<tr>
<td>Tudorache, Valentina</td>
<td>2</td>
<td></td>
<td>473</td>
<td>9085</td>
<td>88.16</td>
<td>33</td>
<td>99.79</td>
<td>46</td>
</tr>
<tr>
<td>Rotaru, Marina</td>
<td>2</td>
<td></td>
<td>473</td>
<td>9326</td>
<td>88.37</td>
<td>36</td>
<td>99.79</td>
<td>47</td>
</tr>
<tr>
<td>Stoica, Gabriel</td>
<td>5</td>
<td></td>
<td>470</td>
<td>9201</td>
<td>88.51</td>
<td>34</td>
<td>99.57</td>
<td>47</td>
</tr>
<tr>
<td>Chitan, Adrian</td>
<td>6</td>
<td></td>
<td>465</td>
<td>8642</td>
<td>87.96</td>
<td>32</td>
<td>100</td>
<td>45</td>
</tr>
<tr>
<td>Clubancan, Mihai</td>
<td>7</td>
<td></td>
<td>464</td>
<td>8961</td>
<td>88.36</td>
<td>33</td>
<td>99.35</td>
<td>46</td>
</tr>
<tr>
<td>Constantinescu, Serban</td>
<td>8</td>
<td></td>
<td>463</td>
<td>8656</td>
<td>87.9</td>
<td>32</td>
<td>100</td>
<td>46</td>
</tr>
<tr>
<td>Caprini, Irinel</td>
<td>9</td>
<td></td>
<td>461</td>
<td>8616</td>
<td>87.85</td>
<td>33</td>
<td>99.57</td>
<td>46</td>
</tr>
<tr>
<td>Caprini, M.</td>
<td>10</td>
<td></td>
<td>459</td>
<td>8705</td>
<td>88.89</td>
<td>32</td>
<td>100</td>
<td>45</td>
</tr>
</tbody>
</table>

When using bibliometrics in research evaluation, best practice is to consider multiple indicators, in conjunction with peer review, to determine the most accurate & holistic assessment. Although Alexandra Tudorache maintains top positions based on measures of output, other authors on the list have achieved higher Times Cited score or have a higher number of Highly Cited Papers.

The European Union funded 19% of Romanian research (papers published between 2013 - 2017). Extracted from the text as part of the Web of Science data capture process, these author-provided funding agency names are harmonized within the InCites dataset to enable accurate analysis of funding outcomes. As illustrated in the tree map below, the European Union has funded the greatest number of papers.

The graph below also shows the top Romanian organizations on European Union funded papers.
ANNEX 1: ORGANIZATION DATA

IN WEB OF SCIENCE CORE COLLECTION

Web of Science Core Collection is the data source for InCites. It contains all author names and affiliations, which are captured from each source publication, including (where available on the source publication) organization name, city, state or province, postal code, country or territory.

1. Affiliations are captured from an article as named and placed in the Web of Science Core Collection Address field.

2. Unification is undertaken for institutions, including name variants, misspellings, and sub-organizations. This is done by Clarivate Analytics staff with participation from the organization being unified. In Web of Science Core Collection these unified names can be found in the Organization-Enhanced index.

3. Unification is done at the primary organization level (e.g. university name), not at the department, faculty, center, institute or other sub-organization level. InCites can be used in conjunction with Web of Science Profiles to establish institutional hierarchies that can be analyzed.

IN INCITES BENCHMARKING & ANALYTICS

InCites Benchmarking & Analytics allows users to filter documents by any organization name that has been unified in Web of Science Core Collection as described above. These unified names are used to filter when examining data from the perspective of an organization’s research output generally, or as a collaborator. Only institutions with unified organization name might be compared using InCites Benchmarking & Analytics.

A CONTINUOUS EFFORT OF DATA UNIFICATION: 40 Romanian organizations already unified, 70 new Romanian organizations soon to be unified. The map below shows the geographic distribution of Romanian organizations (source: https://app.powerbi.com/view?r=eyJrIjoiNmM2OTYxOWYtMWY0NC00MDY3LWFhMjQtYzliNzQxNTYyY2UyMzU3OTI2MTAwMDMyMDMyOTM4OS05MWYiLCJcIjoiNjk1MjI1ODMyMGUwYzE2Yzg4ZmQ4NzU1YjE4NzI4ZjQwNjE3ZGFmZjg4NzgtY2U2OC00ZjQwLTQ0ZS1hYjg0OTc4ZjMxZDg4ZjdiY2QyNjI4IiwicCI6IjEyN2ZhOTYzLTAwYjQtNDI5ZS05NWY5LTcyYzI4Mjg0MzdhNCIsImMiOjZ9).

NEW UPCOMING EXISTING

The Polytechnic University of Bucharest has published 8,485 papers between 2013-2017. The table below lists the top RESEARCH AREAS (Essential Science Indicators categories) of the university. The vast majority of papers have been published in the field of Chemistry (1,366 papers) and Materials Science (931 papers).
The 2 graphs below show the top ORGANIZATIONS COLLABORATING with the Polytechnic University of Bucharest by number of papers (first graph) and by Category Normalized Citation Impact (second graph).

The top collaborator by number of papers is the University of Bucharest with 1,042 papers. However, the authors of the Polytechnic University of Bucharest have a higher impact when collaborating with authors from Sorbonne Université (Category Normalized Citation Impact of 2.62 – respect to the global average of 1).
The table below lists the **JOURNALS** in which authors affiliated to the Polytechnic University of Bucharest have published the most between 2013-2017 (ranked by the number of papers each journal published).

<table>
<thead>
<tr>
<th>Name</th>
<th>Web of Science Documents</th>
<th>Times Cited</th>
<th>% Docs Cited</th>
<th>Journal Normalized Citation Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>REVISTA DE CHIMIE</td>
<td>494</td>
<td>943</td>
<td>59.72</td>
<td>0.91</td>
</tr>
<tr>
<td>UNIVERSITY POLITEHNICA OF BUCHAREST SCIENTIFIC BULLETIN-</td>
<td>169</td>
<td>160</td>
<td>34.32</td>
<td>1.05</td>
</tr>
<tr>
<td>SERIES A-APPLIED MATHEMATICS AND PHYSICS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MATERIALE PLASTICE</td>
<td>138</td>
<td>175</td>
<td>50.72</td>
<td>0.66</td>
</tr>
<tr>
<td>EUROPEAN PHYSICAL JOURNAL C</td>
<td>133</td>
<td>1873</td>
<td>89.47</td>
<td>2.05</td>
</tr>
<tr>
<td>JOURNAL OF HIGH ENERGY PHYSICS</td>
<td>131</td>
<td>1923</td>
<td>83.21</td>
<td>1.33</td>
</tr>
</tbody>
</table>

**Journal Normalized Citation Impact (JNCI)**

The JNCI is a similar indicator to the Normalized Citation Impact, but instead of normalizing per subject area or field, it normalizes the citation rate for the journal in which the document is published.

**PUBLICATIONS IN QX JOURNALS**

- 31.2% Documents in Q1 Journals
- 22.86% Documents in Q4 Journals
- 24.59% Documents in Q3 Journals
- 21.35% Documents in Q2 Journals
Below we identify the **AUTHORS** affiliated to the Polytechnic University of Bucharest who published the highest number of papers between 2013-2017 (ranked by publication volume).

<table>
<thead>
<tr>
<th>Name</th>
<th>Rank</th>
<th>Web of Science Documents</th>
<th>Times Cited</th>
<th>% Docs Cited</th>
<th>Highly Cited Papers</th>
<th>% International Collaborations</th>
<th>H-Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>G. L. Darlea</td>
<td>1</td>
<td>119</td>
<td>3823</td>
<td>98.32</td>
<td>9</td>
<td>100</td>
<td>31</td>
</tr>
<tr>
<td>Alexandru Mihai Grumezescu</td>
<td>2</td>
<td>105</td>
<td>849</td>
<td>82.86</td>
<td>1</td>
<td>28.57</td>
<td>15</td>
</tr>
<tr>
<td>Ecaterina Andronescu</td>
<td>3</td>
<td>94</td>
<td>517</td>
<td>69.15</td>
<td>0</td>
<td>13.83</td>
<td>14</td>
</tr>
<tr>
<td>Ciprian Dobre</td>
<td>4</td>
<td>83</td>
<td>144</td>
<td>48.19</td>
<td>0</td>
<td>54.22</td>
<td>6</td>
</tr>
<tr>
<td>Florin Pop</td>
<td>5</td>
<td>81</td>
<td>171</td>
<td>54.32</td>
<td>0</td>
<td>40.74</td>
<td>6</td>
</tr>
</tbody>
</table>

This radar chart shows the research footprint of the three leading authors.

- G. L. Darlea
- Alexandru Mihai Grumezescu
- Ecaterina Andronescu

The graph on the left illustrates the **FUNDERS** mentioned on the papers published by authors of the Polytechnic University of Bucharest (documents published between 2013-2017). The European Union has funded the highest number of papers - 557 documents.
Who we are

Clarivate Analytics accelerates the pace of innovation by providing trusted insights and analytics to customers around the world, enabling them to discover, protect and commercialize new ideas faster. We own and operate a collection of leading subscription-based services focused on scientific and academic research, patent analytics and regulatory standards, pharmaceutical and biotech intelligence, trademark protection, domain brand protection and intellectual property management.

Clarivate Analytics is now an independent company with over 4,000 employees, operating in more than 100 countries and owns well-known brands that include Web of Science, Cortellis, Derwent, CompuMark, MarkMonitor and Techstreet, among others. For more information, visit clarivate.com.

To learn more, visit: clarivate.com/web-of-science

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