The Value of Multiple Databases in Web of Science

More powerful discovery and analysis

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Agenda

1. The Web of Science Platform
2. FSTA (Food Science and Technology Abstracts)
3. Medline
4. CABI (CAB Abstracts and Global Health)
5. Inspec
6. Zoological Record
7. BIOSIS
8. Bringing them all together
The Web of Science Platform

~34,000
Journals across the platform

~21,000
Total journals in Core Collection

~8 Million
Data Sets and Data Studies

~80 Million
Patents for over 40 million inventions

12.6 Million
Records with funding data

Backfiles to 1900
With cover-to-cover indexing

200,000+
Conference records

100,000+
Books
Content and Benefits

• FSTA is the largest Food Science database currently available. Published by IFIS (International Food Information Service.)
• The latest developments and research findings in all sciences linked to food, drink and nutrition
• Unique coverage from specialist sources
• >1.5million records available back to 1969
• Content from >1,200 Journals
• Covering 104 countries
• >1,500 records added/week
• Contains high quality abstracts
• Updated weekly
FSTA (Food Science and Technology Abstracts)

Content and Benefits

- Maintained by IFIS in-house team of highly experienced scientists
- Descriptors Thesaurus with >12,000 terms helps search for related words
- FSTA Sections in a hierarchy

FSTA® - the food science resource (1969–present)

Provides thorough coverage of pure and applied research in food science, food technology, and food-related nutrition.

- Covers topics relating to every aspect of the food chain, including all the major food commodities plus biotechnology, microbiology, food safety, additives, nutrition, packaging, and pet foods.
- Search for food-related literature from journals, books, proceedings, reports, theses, patents, standards, and legislation.
Content and Benefits

• Published by the US National Library of Medicine
• Premier source for Biomedicine and Health research.
• Covering Biology, Environmental Science, Plant and Animal Science, Marine Biology, Chemistry and Biophysics
• Also Newspapers, Newsletters and Magazines
• >30 million records available back to 1950
• >800,000 records added in 2017
• >5,500 Journals
• Updated daily
• Contains high quality abstracts
• Medical Subject Headings (MeSH)
Content and Benefits

• Maintained by NLM in-house highly experienced team
• MeSH Thesaurus provides consistent searching by Latin or common words
Content and Benefits

• Thorough and extensive source of references in the applied Life Sciences
• Covering Agriculture, Environmental, Microbiology, Food & Nutrition, Plant Sciences, Parasitic Diseases, Public Health, Leisure, Tourism
• Content from Serial Publications, Patents, Standards, Books, Reviews, Conference Proceedings, Reports, Theses and Standards
• Content from >8,000 Journals, covering >150 countries
• Abstracts from 1910, Global Health from 1912
• >2,500 Journal not in Web of Science
• >11.9 million records from
• Contains high quality abstracts
• Updated weekly
• Published by CAB International
Specialist Indexing
- Maintained by CAB in-house team of highly experienced scientists
- Descriptors Thesaurus with >12,000 terms helps search for related words
- CABICODE Sections in a hierarchy
Content and Benefits

• Inspec is the specialist database focusing on Physics, Engineering and IT. Published by IET (The Institute of Engineering and Technology).
• The latest developments and research findings in all sciences linked to food, drink and nutrition
• Content from Serial Publications, Patents, Standards, Books, Reviews, Conference Proceedings, Reports, Dissertations and Videos.
• Unique coverage from specialist sources
• >19million records available back to 1896
• Content from >4,500 Journals
• Covering >65 countries
• >850k records added/week
• Contains high quality abstracts
• Updated weekly
Specialist Indexing

- There are many indexes to provide consistent discovery:
  - Inspec Classifications
  - Ispec Thesaurus
  - Numerical Data Indexing
  - Chemical Substance Indexing
  - Astronomical Object Indexing
  - Treatment Codes
  - IPA Patent Codes
  - Author Indexing
Zoological Record

Content and Benefits

• The first choice database for any researcher involved in animal sciences and related disciplines such as Zoology, Bio-diversity, Taxonomy, Conservation, Ecology, Evolution, Habitat and many more.

• Coverage from 1978 onwards (archive will extend coverage to 1864)

• Books, Conference Proceedings, Meeting Papers, Meeting Reports, Newsletters & Reviews

• >2,100 unique titles not in Web of Science

• >4.5 million records available

• >85,000 records added/year

• >4,500 International Journals

• Covering >100 countries

• Updates daily
Specialist Indexing

• Thesaurus – Five major hierarchies:
  • Subject
  • Geographical
  • Palaeontological
  • Systematic
  • Taxa Notes

• Key Fields:
  • Broad Terms
  • Taxa Notes
  • Super Taxa
  • Descriptors Data
  • Systematics Data

Zoological Record (1864-present)
The world’s leading taxonomic reference and oldest continuing database of animal biology.

- Keep up on all aspects of animal biology and biodiversity issues.
- Determine the first appearance of an animal name or new species and track taxonomic and nomenclatural changes.
- Search with the help of extensive thesauri, including subject, geographical, palaeontological and taxonomic classifier.
**Content and Benefits**

- Available only on the Web of Science platform
- A resource specialising in Life Sciences
- Covering Botany, Zoology, Microbiology, Agriculture, Biochemistry, Bioengineering, Biomedical, Biophysics, Biotechnology, Ecology, Medicine and Pharmacology
- All citation data is resident within the BIOSIS Citation Index database
- Includes Abstracts, Reports, Reviews, and Meetings
- Web of Science overlapping items from 1926
- BIOSIS unique items from 2006
- >5,300 Journals and serials indexed
- >28 million records
- 765 Journals not in Web of Science
- Updated daily
- Cited references for BIOSIS Previews
Specialist Indexing

- Biologists, understanding of the content, index the records in BIOSIS databases.
- Specialized, value-added Fields
- Major Concepts
- Concept Codes
- Taxonomy
- Chemical Data
- Disease Data
- Gene Data
- .... and more
Bringing it all Together

Common interface for all of the Databases, with specialist indexing kept in individual databases.

Quality metadata curated by specialists, supplements the Core Collection – the Super Record.

The overlap between databases allows expanded multi-disciplinary discovery.
When searching All Databases, only fields common to them all are provided in the Basic and Advanced search interfaces. This ensures consistent searching across each of the databases.

If a specialist field needs to be searched, do the search within that specific database, not All Databases.
Common Interface

When working with results from All Databases, the same core tools are available as in the Core Collection.

The Citation Network facilitates navigation through citations (not all databases have citation information).

Analyse Results and Citation Report provide valuable analytics.

Records can be exported in the usual formats.
The Super Record

- A record in more than one Database
- Specialisms provides more information
Expanded Discovery

Topics Search – All Databases
- Fields searched vary between databases
- Usual fields, plus specialist indexed fields
The results for the individual databases are shown, regardless of the user’s subscriptions.

**Expanded Discovery**

**Core Collection Search**
Search criteria are looked for in:
- Title
- Abstract
- Keywords
- Keywords Plus

**All Database Search**
Search criteria are looked for in:
- Title
- Abstract
- Keywords
- Specialist Indexing

**Results: 302**
(from Web of Science Core Collection)
You searched for: TOPIC: (diclofenac and environment and toxic*)

**Results: 710**
(from All Databases)
You searched for: TOPIC: (diclofenac and environment and toxic*)

There are more than double the number of results in the Core Collection when searching All Databases. **Why?**
Combustion fabrication of magnetic porous carbon as a novel magnetic solid-phase extraction adsorbent for the determination of non-steroidal anti-inflammatory drugs

Abstract

Based on a one-step combustion fabrication approach, a novel magnetic porous carbon (MPC) was fabricated using filter paper as porous carbon source and iron salts as magnetic precursors. The textural properties of the MPC were characterized by transmission electron microscopy (TEM), Fourier transform Infrared spectrometry (FT-IR), X-ray photoelectron spectroscopy (XPS), X-ray diffraction (XRD), vibration sample magnetometer (VSM) and nitrogen absorption-desorption isotherms. The as-prepared MPC possessed a high specific surface area, a microstructure comprised of mesopores and strong magnetic response. It was employed as a magnetic solid-phase extraction (MSPE) adsorbent for the determination of three non-steroidal anti-inflammatory drugs (NSAIDs) in environmental water and biological samples coupled with high performance liquid chromatography (HPLC). The main parameters affecting extraction efficiency were investigated in detail and a satisfactory performance was obtained under the optimal conditions. The calibration curves were linear over the concentration ranging from 1 to 1200 μg L⁻¹ for ketoprofen (KET) and 2-1200 μg L⁻¹ for naproxen (NAP) and diclofenac (DCF) with determination coefficients (R²) between 0.9995 and 0.9997. The limits of detection (LODs) were in the range of 0.2-0.4 μg L⁻¹. The intra- and inter-day relative standard deviations (RSDs) were less than 4.03% and 8.72%, respectively. The recoveries ranged from 84.67% to 113.73% with RSDs less than 7.76%. The satisfactory results confirmed the great potential of the novel MPC adsorbent for the extraction of NSAIDs from complex sample matrices. (C) 2019 Elsevier B.V. All rights reserved.

Keywords

Author Keywords: Magnetic porous carbon; Combustion fabrication; Magnetic solid-phase extraction; Non-steroidal anti-inflammatory drugs; High performance liquid chromatography

KeyWords Plus: METAL-ORGANIC FRAMEWORK; LIQUID-LIQUID MICROEXTRACTION; SORPTIVE EXTRACTION; WATER; PERFORMANCE; NANOPARTICLES; PHARMACEUTICALS; PESTICIDES; RESIDUES; NSAIDS

MAJOR CONCEPTS: Pharmacology; Toxicology; Pollution Assessment Control and Management; Methods and Techniques; Biomaterials

Concept Code: 10060, Biochemistry studies - General; 10511, Biophysics - Bioengineering; 12512, Pathology - Therapy; 22002, Pharmacology - General; 22005, Pharmacology - Clinical pharmacology; 22012, Pharmacology - Connective tissue, bone and collagen-acting drugs; 22501, Toxicology - General and methods; 22506, Toxicology - Environment and industry; 37015, Public health - Air, water and soil pollution

Core Collection Record
This Core Collection record was not in the original result set, as it did not have toxic is the Title, Abstract, Keywords or Keywords Plus.

All Database Record
The record was found here because it has been categorised in BIOSIS as being in several Toxicology Major Concepts.
Expanding further

The Data Citation Index (DCI) allows users to see and download the data sets associated with, and often the reason for, a given article.

From poster sessions to invited speakers, the most current research knowledge is shared at conferences. Most conference presentations include unpublished work. The Conference Proceedings Citation Index (CPCI) ensures your patrons don’t miss this information.

If CPCI is the source for contemporary discoveries and ideas, the Book Citation Index (BKCI) unlocks the foundational knowledge in books that is elemental to each research question.

Most of the world’s technical knowledge is buried in cryptic patent language. Derwent Innovations Index (DII) solves this problem—delivering easy to read titles and abstracts.

The Web of Science Citation Connection accelerates discovery by allowing users to connect with knowledge scattered across different mediums. Dr. Eugene Garfield recognized decades ago that citations were the most accurate way to identify the knowledge essential to a research topic.
Thank you

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