# The Charleston ADVISOR

Critical Reviews of Web Products for Information Professionals



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# Energy Citations Database

*Date of Review: May 20, 2002*

Composite Score:: ★★★ 1/2

**Reviewed by: Gerry McKiernan**
Parks Library, Iowa State University
152 Parks, Ames, Iowa 50011
<gerrymck@iastate.edu>

## Pricing Options

Available free-of-charge.

## Product Description

The Energy Citations Database (ECD) is a bibliographic database developed by the Office of Scientific and Technical Information (OSTI) of the U.S. Department of Energy (DOE) to improve access to energy and energy-related scientific and technical information produced or funded by DOE or its predecessor agencies, the Atomic Energy Commission (AEC) and the Energy Research and Development Administration (ERDA). ECD is made available by OSTI in partnership with the U.S. Government Printing Office (GPO) through GPO Access. It was launched in October 2001 and presently contains approximately 2 million records; it is currently updated weekly.

## Database Content

The Energy Citations Database (ECD) provides full bibliographic records to the literature of disciplines of interest to the U.S. Department of Energy, notably chemistry, physics, materials, environmental science, geology, engineering, mathematics, climatology, oceanography, computer science, and related disciplines. ECD provides citations to books, conference proceedings and papers, dissertations and theses, government documents, journal articles, patents and patent applications, software manuals, as well as the report literature. A significant number of ECD records also include abstracts. ECD provides access to public bibliographic records from a variety of DOE, AEC, or ERDA sources, for the period beginning in 1948.

## Bibliographic Record Format

Although there are minor variations depending on publication type and item, the ECD record format, in general, includes the following bibliographic fields, among others: Title, Creator/Author, Publication Date, Report Number(s), Resource/Doc Type, Resource Relation, Research Organization, Sponsoring Organization, Subject, Related Subject, Description/Abstract, Country of Publication, Language, Format, OSTI Identifier, and System Entry Date. (see Figures 1 and 2)

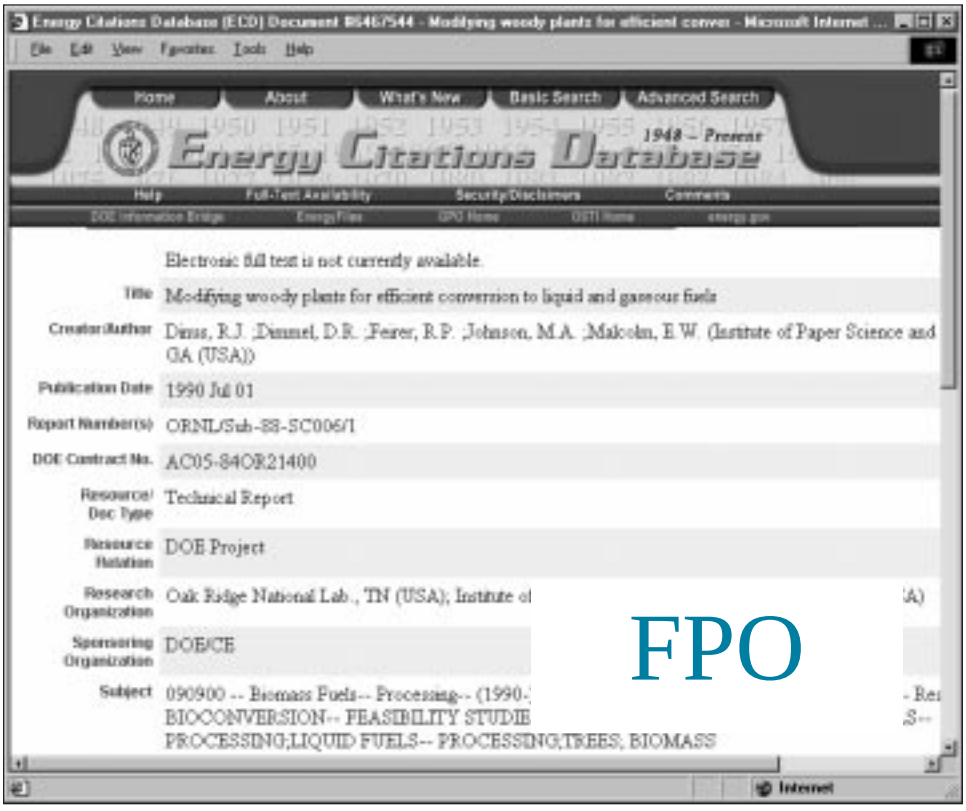



**Figure 1. Top portion of a sample Energy Citation Database record.**

***Title.*** The Title field provides the main title of a publication (e.g., report) or item (e.g., journal article), as well as associated subtitles, if any. For non-English publications, a translated English language title only is available. In select cases, title entries are to an entire periodical issue (e.g., *Biofuels News*—Winter 2001, Vol. 4, No. 1).

***Creator/Author***. The Creator/Author field lists the surname(s) and initial(s) of all identified authors (e.g., Dinus, R.J.; Dimmel, D.R.; Feirer, R.P.; Johnson, M.A.; Malcolm, E.W.). In select cases, the affiliation of authors is provided adjacent to the set of author names (e.g., Institute of Paper Science and Technology, Atlanta, GA [USA]). See Figure 1.

***Report Number.*** This field provides access to document numbers associated

## Energy Citations Database
## Review Scores Composite: ★★★ 1/2

*The maximum number of stars in each category is 5.*

**Content:** ★★★★ 1/2

Energy Citations Database is a major electronic information resource that provides access to primary and secondary energy or energy related literature. Its coverage of the gray literature is extensive and impressive.

**Searchability:** ★★ 1/2

While the Energy Citations Database offers several noteworthy search functionalities, its navigation features are rudimentary and limited.

**Pricing Options:** N/A

Use of this version of Energy Citations Database is free-of-charge and open to the public.

**Contract Options:** N/A

No contract is required to use this free Web-based version of *Energy Citations Abstracts*.

with a publication. For example, for technical reports, the internal report number is typically provided (e.g., ORNL/Sub-88-SC006/1); for patents, the standard national patent number is included (e.g., US 4756898).

***Resource/Doc Type.*** Within ECD, a publication is identified as one of several resource or document types and is so noted in this field (e.g., book, journal article, technical report).

***Resource Relation.*** For journal articles, the full or abbreviated title of the source journal is noted in this field as is the associated volume and issue (e.g., *Journal of Chemical and Engineering Data*; Vol/Issue: 39:2). Information about a publication and its relation to an associated activity (e.g., DOE Project) is also indicated in this field, as are other types of notes.

***Research Organization.*** The agency, university, department, corporation, or other organization responsible for conducting the associated research reported in a publication is listed in this field (e.g., Oak Ridge National Lab., TN [USA]; Institute of Paper Science and Technology, Atlanta, GA [USA]).

***Sponsoring Organization.*** This field lists the organization that provided supporting funds for the reported research.

***Subject.*** Relevant subject codes and subject descriptors are provided in this field. See Figure 1.

***Related Subject.*** This field provides key words or other uncontrolled vocabulary that describe the resource.

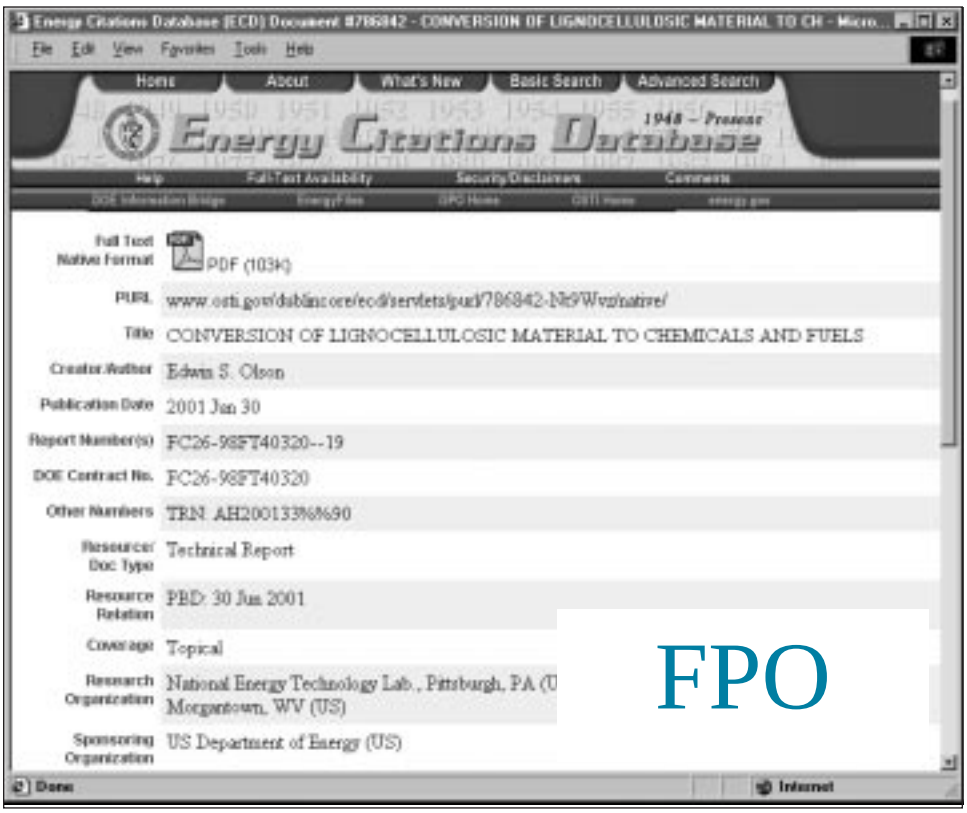
***Description/Abstract.*** An abstract or other description provides appropriate details about the nature of the research reported and associated results (see Figure 2).

***Language.*** The primary language of publication is noted in this field.

***Format.*** The number of pages of a publication are noted in this field. In addition, the document format of the source publication in elec-

**Figure 2. Middle and lower portions of a sample Energy Citation Database record.**

**Figure 3. Top portion of a bibliographic record with linked full-text access.**




tronic format is noted (e.g., PDF), as is the size of the total number of kilobytes for select records. Other format information is also provided in this field.

A number of other general or publication-specific fields are also included in an ECD record, notably DOE Contract No. (e.g., AC05-84OR21400), Other Numbers (e.g., International Standard Book Number (ISBN)), Specific Type [of Resource or Document Type] (e.g., Progress Report), and Availability (e.g., NTIS, GPO depository, contractor, etc.). In addition, at the head of each bibliographic record is a note about the current online availability of the publication (e.g., "Electronic full text is not currently available" [see Figure 1] or, in its place, an icon representing a document format, which implicitly indicates fulltext electronic access [see Figure 3]).

## Fulltext Availability

Copies of the publications indexed in ECD are generally available from a variety of governmental sources, notably from libraries participating in the Federal Depository Library Program (FDLP) of the U. S. Government Printing Office (GPO), the National Technical Information Service (NTIS), or from the originating source or contractor. In addition, a significant number of titles indexed in ECD and published since 1995 are also available electronically via a Persistent Uniform Resource Locator (PURL) Web link. Within the database, fulltext documents are available in one of several formats, notably Portable Document Format (PDF), Microsoft Word (DOC), WordPerfect (WP), HyperText Markup Language (HTML), PostScript (PS), Tagged Image File Format (TIFF) Group 4, Standard Generalized Markup Language (SGML), or Extensible Markup Language (XML). In addition to their original format, most documents are also made available in PDF.

For ECD publications with an associated electronic version, publications are linked indirectly from the document format icon at the head of the bibliographic record. To the right of the icon, the document format initialism or name (e.g., PDF) and its file size in kilobytes are noted; the associated PURL (e.g., <www.osti.gov/dublincore/ecd/servlets/purl/786842-Nt9Wvz/native/>) for the electronic version is located just beneath in a separate field (see Figure 3).

## Searching

ECD offers two search interfaces: Basic Search and Advanced Search. These are among five general or specific tabbed options located along the border of the banner found at the head of all ECD pages (see Figures 1 and 3).

## Basic Search

Using a pull-down menu from the search box, users can search Bibliographic Info, Title, Creator/Author, or Identifier Numbers (see Figure 4). The Bibliographic Info option will allow a user to search the full citation, while a Title search permits the user to search any or all of the terms or phrases in an ECD title field.

ECD allows a user to search for "exact character strings or phrases" in a Bibliographic Info or Title query. Query text is case insensitive: a term entered in lower, mixed, or upper case will match a term in any case in the database. A phrase can be searched by enclosing it in double quotes (e.g., "ethyl alcohol"). Boolean operators (AND, OR, or NOT) can be used to narrow or broaden a search statement and search terms and phases may be nested using parentheses, for example: (ethanol OR "ethyl alcohol") NOT (methanol OR "methyl alcohol"). Operators are also not case sensitive. In addition, wild card functions allow a user to search for terms with the same initial alphabetical or alphanumeric characters. The asterisk (*) is used as a substitute for one or more characters, while the question mark (?) is used as a substitute for one character only.

In a Basic Search, users can also search for author by full name and initial(s) (e.g., Dinus, R.J.) or surname only (e.g., Dinus) or for one of several Identifier Numbers. Specifically, an Identifier Number is one of the variety of numbers assigned to or associated with a resource, document, or publication. A report number (e.g., DOE/PC/93215-T7), DOE contract number (e.g., F22-93PC93215), OSTI identification number (e.g., DE91000550), conference number (e.g., CONF-970813), international number (e.g., ISBN 0-87170-666-0), and patent number (e.g., JP 7305071) are among the common types of Identifier Numbers found within ECD records. As in the Bibliographic Info and Title search, wildcard characters (i.e., * and ?) can be used in these other Basic Search options.

In a Basic Search, results can be sorted by one of several key fields, namely Relevance, Publication Date, System Entry Date Resource/Doc Type, Title, Research Org, Sponsoring Org, or OSTI Identifier, and can be displayed in descending order—the default—or ascending order. Except for Relevance, the default sort option, a Search Advisory pop-up window is displayed in the center of the screen upon selection of any of the other sort options. The Search Advisory cautions that "[t]his sort choice could significantly slow response time."

Results from a Bibliographic Info search using the Relevance sort option are displayed in groups of 20 brief record entries. For each entry, the associated Identifier, Title, Creator/Author, and Pub Date are provided, when available (see Figure 5). Above the entry listing are notes about the type of search and the associated search statement ("Bibliographic Info contains (ethanol)"), the sort field ("Sorted by: Relevance descending"), and the number of records found. If there are more than 100 matching records, the total number of records is not indicated; instead, there is an associated statement ("Found: Greater than 100 matches") and a retrieval option ("Get Exact Count of Matches"). See Figure 5. In selecting this option, the search is re-executed and the number noted (e.g., '7653 matches') in the Found field.

Results from a Bibliographic Info search using the Publication Date sort, will be displayed in descending (or ascending) order by year of publication. As with the Relevance sort, and all others, result entries will include the same record fields (Identifier, Title, Creator/Author, and Pub Date) in groups of 20 records. Likewise, for this sort option, and all others, the type of search and the associated search statement (e.g., "Bibliographic Info contains (ethanol)"), the sort field (e.g., "Sorted by: Publication descending"), and the number of records 'found' are noted above the entry listings. In this, and all other sort options, searches that retrieve more than one hundred records will include the associated statement ("Found: Greater than 100 matches") and the option to "Get Exact Count of Matches."

The Resource/Doc Type sort for a Bibliographic Info search will display search results grouped by resource or document type (Technical Report, Thesis/Dissertation, Patent Application, Patent, Miscellaneous, Journal Article, etc.). The publi-

**Figure 4. Pull-down menu listing search field options in a 'Basic Search'.**

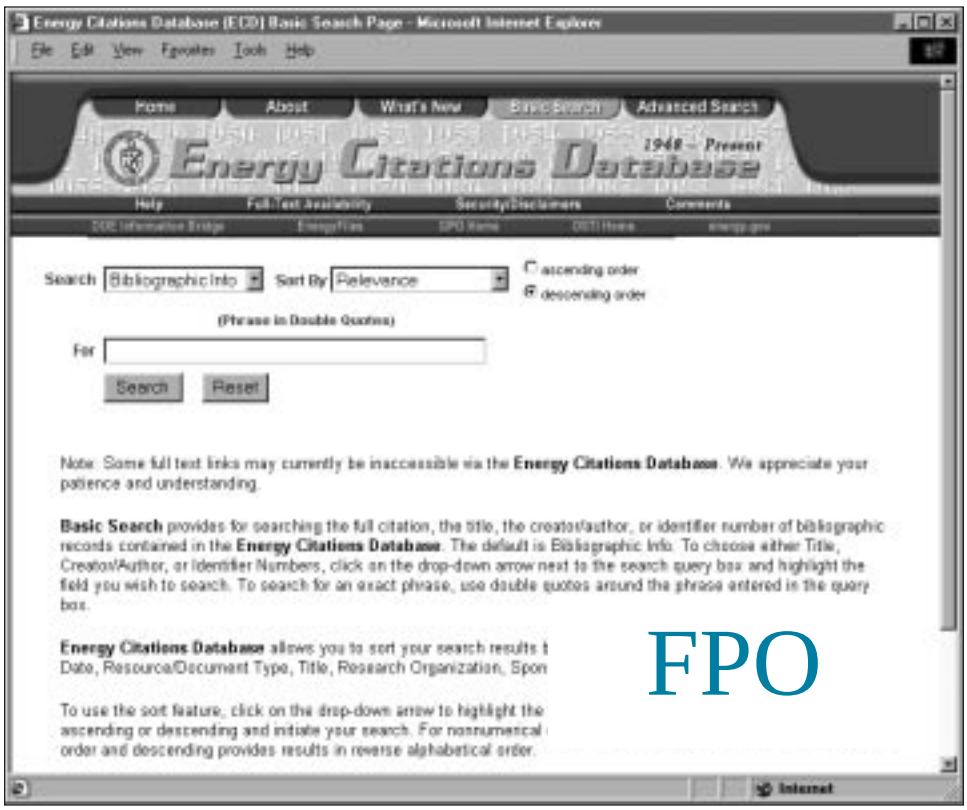



**Figure 5. Sample search results listing for a 'Bibliographic Info' search sorted by 'Relevance'.**

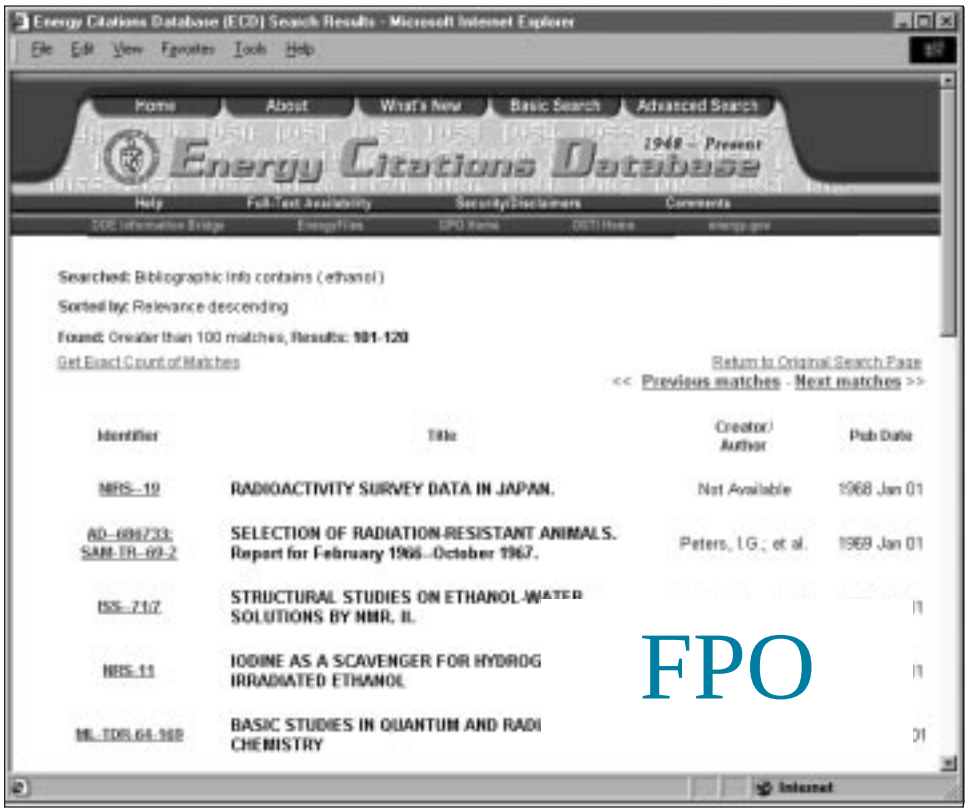


**Figure 6. A 'Bibliographic Info' sample search results listing sorted by 'Resource/Doc Type' (descending) showing transition from one group ('Technical Report') to another ('Thesis/Dissertation').**


cation type will be noted below the identifier in brackets (e.g., Technical Report). See Figure 6.

It should be noted that search results sorted by Relevance do not include an explicit indication of the publication type in the entry listing. At best, identification is cryptic and only for a portion of entries. For example, a patent number is used as the identifier for a patent (e.g., US 4359533) and technical reports use a technical report number as an identifier (e.g., PNL-7673).

For a Bibliographic Info search with results sorted by title, entries in general are displayed in alphabetical (A-Z: ascending) or reverse alphabetical order (Z-A: descending) by the publication title.

Bibliographic Info search results may also be sorted by research organization (Research Org) or by sponsoring organization (Sponsoring Org). Records with an associated research organization will have the organization name (e.g., "Peking University"). address (e.g., "1240 Rattlesnake Bridge Road, Bedminster, NJ [US]"), or name and address (e.g., "3 V's Environmental, Boca Raton, FL [USA]") enclosed in brackets beneath the identifier number for each entry in a search results listing. For those records that do not include an associated research organization, the phrase "Not Available" is displayed and enclosed in brackets beneath the identifier number. When search results are displayed in the default descending order, records without an associated research organization will be listed before those that have the organization noted. For a sponsoring organization sort, the initials of the corporate body (e.g., "DOE"), full name (e.g., "US Department of Energy [US)]"), or full name and place (e.g., "USDOE Morgantown Energy Technology Center, WV [United States]") are provided for those records with an associated sponsoring corporate body.

Results from a Bibliographic Info search sorted by OSTI Identifier will be listed in descending (or ascending) order by an OSTI identifying number. The generic OSTI Identifier is a unique number (e.g., "OSTI ID: 6467544") assigned to an indexed publication.

## Advanced Search.

In the Advanced Search, a user can search all of the fields offered in the Basic Search (i.e., Bibliographic Info, Title, Creator/Author, and Identifier Numbers) as well as several other major or limiting fields, notably Publication Date, System Entry Date, Resource/Doc Type, Research Org, Sponsoring Org, Language of Full Text, and Country. Any of these can be searched individually by selecting from a pull-down menu listing. Fields can be searched concurrently, or logically combined, by selecting two (or more) and an appropriate Boolean operator (AND, OR, or, NOT) in conjunction with a specific search 'Word or Phrase' (see Figure 7). Additional fields may be added to the Advanced Search interface, by clicking on the Add Criteria button found in the lower right-hand corner of the search page (see Figure 7).

In selecting the Publication Date, the search interface is reconfigured. For this option, users can enter dates directly ("yyyy/mm/dd" format) or select dates from a pop-up calendar for pasting into the date search field ("Enter the data range below"). In selecting the Resource/Doc Type option, the interface is also reconfigured to allow the user to select one of several publication types (e.g., Book, Conference, Journal Article, etc.) from a separate pull-down menu (see Figure 8).

Selecting the Language of Full Text also reconfigures the interface and users may select from a listing of available languages (e.g., Dutch, English, Finnish, etc.) from an available pull-down menu, or enter a language name directly as text.

In an Advanced Search, a user can request that only the number of matching records be displayed by clicking a check box ("Count of Search Results Without Bibliographic Record Display").

As in a Basic Search, search results in an Advanced Search can be sorted by one of several key fields, namely Relevance, Publication Date, System Entry Date Resource/Doc Type, Title, Research Org, Sponsoring Org, or OSTI Identifier, and displayed in descending (or ascending) order.

## Navigation

ECD allows the user to sequentially display listings of brief records in groups of 20 using hotlinked options found in the upper and lower right-hand corners of a record group ("<<Previous matches _ Next matches>>"). See Figure 5.

**Figure 7. 'Advanced Search' interface with pull-down menu listing search field options.**

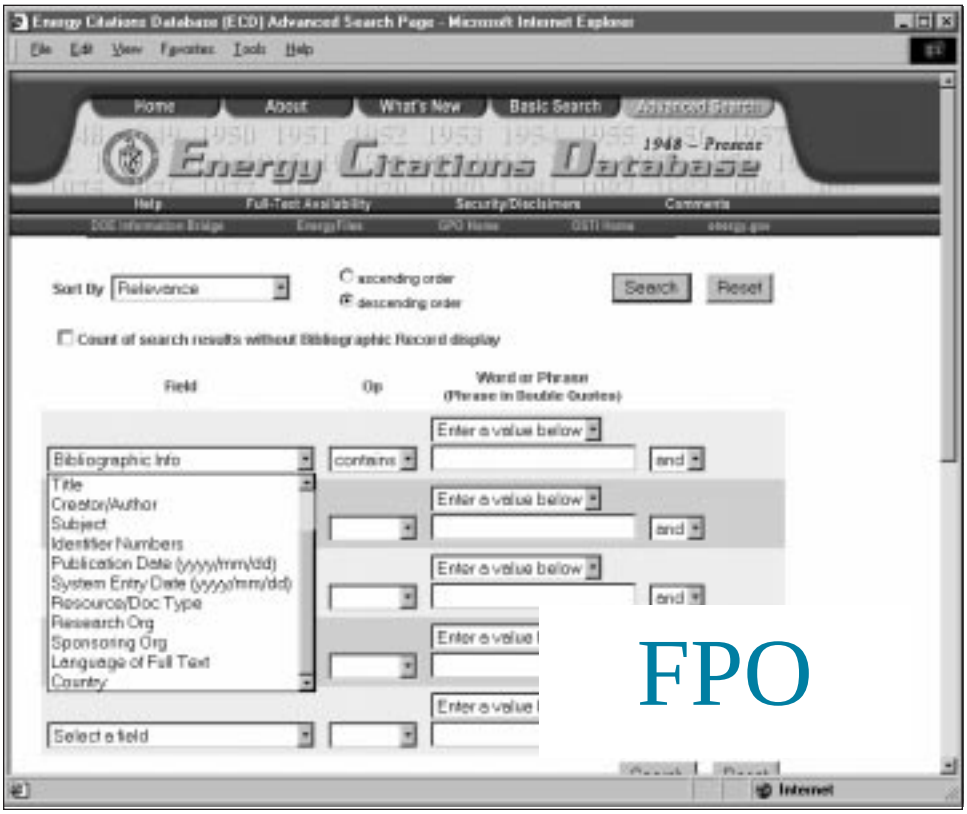
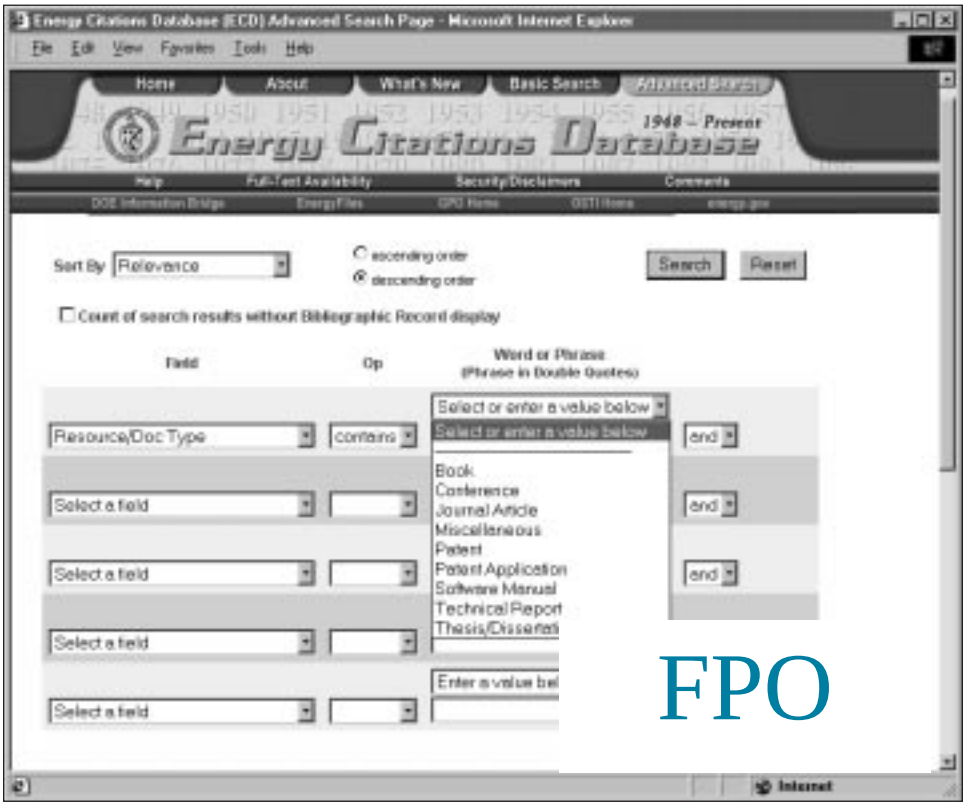



**Figure 8. Pull-down menu listing the resource or document types available for searching or limiting.**




## Technical Requirements

For complete system functionality, Netscape (4.08 or higher) or Microsoft Internet Explorer (4.01 or higher) browsers must be used. Javascript as well as style sheets must be enabled, and session cookies must be accepted. Adobe Acrobat Reader or a data decompression utility (e.g., WinZip for Windows) is required for viewing full text.

## Critical Evaluation

### CONTENT

As a free Web-based database of approximately two million records, the Energy Citations Database (ECD) is a major electronic resource for energy and energy-related information of potential value to researchers, librarians, and other specialists throughout the world. As a significant number of its records include detailed abstracts or descriptions, ECD is also a major source of summary data as well. While the scope of ECD is noted within its site, the number of records in the database is not; data on the size of the database was provided by the ECD contact. With its specific organizational association and the extensive availability of abstracts, consideration should be given to renaming ECD to reflect the full nature of its record content and organizational relationship (e.g., DOE Energy Abstracts).

As noted, ECD is derived from a variety of federal energy agency sources. To comprehend its full breadth and depth, it would be beneficial to provide an annotated listing of the most significant sources from which ECD records have been selected. ECD is noteworthy for its coverage of the grey literature (e.g., technical reports, theses and dissertations, conference papers, etc.). With their increasing importance, consideration should be given to incorporating relevant electronic preprints (e-prints) from appropriate e-print servers (e.g., arXiv.org) into ECD.

Statistical data should also be provided about the representation of non-U.S. publications as well as the language of the original publications to inform users of the full scope and depth of the database.

In general, records in ECD contain assigned subject codes and categories as well as subject descriptors. Neither the nature nor the source of these, however, are noted or described. Likewise, while

## Contact Information

Mary Schorn, Product Manager
Energy Citations Database
U.S. Department of Energy,
Office of Scientific and Technical Information
P.O. Box 62
Oak Ridge, TN 37831
Phone: (865)576-1188
Fax: (865)576-2865
E-mail: <energycitations@osti.gov>
URL: <http://www.osti.gov/energycitations/>

ECD records also include a Related Subject field, the nature of this field is not explicitly noted, nor are the characteristics of the terms, or their sources.

### RECORD FORMAT

As noted, the results of a Basic Search or Advanced Search provide a listing of entries that include select bibliographic data (i.e., identifier, title, author, and publication date). See Figure 5. Upon clicking the identifier, a full record is displayed (Figures 1 and 2). For those who desire a concise bibliographic citation, this brief format is insufficient as it excludes standard citation data. For example, for a journal article, this format lacks the journal title, volume and issue numbers and pagination. The full record, on the other hand, provides all bibliographic and additional data in a labeled format that many might find overwhelming and difficult to decipher. As is common within most commercial Web database software (e.g., WebSPIRS (SilverPlatter Information), ECD should allow users to choose from several standard record formats (full citation, citation and abstract, citation with descriptors, etc.) or permit them to customize a record format by selecting from available fields (citation, abstract, research organization, and sponsoring organization).

### SEARCHING AND BROWSING

In ECD a Bibliographic Info search allows the user to search the "full citation." While one would expect that such a search would be restricted to searching standard bibliographic data elements (Author, Title, Publication Source, etc.), the ECD search option is not so limited. Indeed, a Bibliographic Info search will enable a user to search a number of additional fields in the ECD record (Research Organization, Subject, Description/Abstract, etc).

In addition to search functionalities, most commercial database system software enables the user to browse the content of key search fields (Author, Title, Keyword, Subject, etc.) in either in combined or separate online indexes. While printed energy abstracting publications (e.g., Energy Research Abstracts) include separate indexes for major record data fields such as Personal Author Index, Subject Index, Report Number Index, etc., ECD does not offer a field browse function. In view of the inherent benefit offered by browsing to novice and non-novice users alike, browse functionality for several key record fields (for example, Personal Name, Corporate Name, Report Number) should be implemented. In addition, users should be allowed to browse all standard categories and associated codes, as well as descriptors, and other indexing terms and phrases. A browseable thesaurus of codes, categories, and descriptors would significantly enhance the recall and precision of subject searches. The ability to browse, select, and click-and-copy candidate terms and phrases into a search statement from a browseable descriptor listing or thesaurus would significantly improve the efficiency and accuracy of constructing such search statements.

### DISPLAY AND NAVIGATION

Unlike a functionality found in an increasing number of bibliographic and abstract databases, data in ECD record fields are not hyperlinked, thereby prohibiting users from navigating the ECD database from within a record. Thus, for example, to search for all the ECD records of a particular sponsoring organization identified from an author or subject search, the user is required to initiate a subsequent new search for this corporate name in the appropriate ECD search field. In view of the benefit offered to the user, such hyperlinked search functionality should be implemented in the next version of the ECD system software for several key fields (Creator/Author, Research Organization, Sponsoring Organization, Subject, etc.).

As noted, ECD displays brief records in groups of 20 entries. Users, however, can only retrieve record groups sequentially; they cannot move to a specific record group of interest, for example, the record group that contains entries 100 through 120. Recognizing the inconvenience of sequential browsing, most database systems (WebSPIRS and SilverPlatter Information, for example) and internet search engines (Google, for example) allow users not only to browse in this manner, but also to specify the beginning record number for the next retrieved set or to browse numbered sets nonsequentially. It is also common for many database systems to allow users to display a subsequent or previous record from within a currently reviewed record (e.g., Next Record; Previous Record). Such navigation is not available in ECD; to display a subsequent or previous record in ECD, the user must return to the record group display (Figure 5) and click the identifier for the record of interest.

### SORTING

It has become common practice for databases systems (such as Internet Database Service, *Cambridge Scientific Abstracts*) to display search results in order by relevancy. In ECD, search results are ranked by relevancy as the default sort option. The algorithm used to calculate relevance, however, is not specified and the degree of relevancy is not conveyed by an associated indicator (relative number or percentage).

Within ECD, results can be sorted by resource or document type. The order of document types with a retrieved set, however, is not explicitly specified. In addition, in such a sort, the order of documents within a group is not explained or readily discernable.

Unlike some database systems, ECD does not offer post-retrieval sorting of search results. To sort records by another field, a user must initiate a new search, select from the desired sort options in a Basic Search (or Advanced Search'), and re-execute the search statement with a new sort option. In addition, in ECD, search results can only be sorted on one field; secondary (or tertiary) sorting is not currently available. In view of the inherent benefit provided by post-retrieval and secondary sorting, it would be beneficial to offer such functionalities in the next version of the ECD system.

### FEATURES AND FUNCTIONALITIES

It is common for a database search to retrieve dozens or hundreds of potentially relevant records. To enable users to view or print those items of greatest interest, most major database software (for example, WebSPIRS [SilverPlatter International]) includes a marking or tagging feature. As an alternative to printing, bibliographic database software systems typically allow a user to download or e-mail search results as well; ECD offers none of these features or functionalities.

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In most commercial database systems (e.g., WebSPIRS), it is also common for search terms or phrases to be highlighted within a record to enable the user to readily assess the relative relevance of a particular record. Such a feature is not available in ECD.

While it is uncommon, an increasing number of databases (e.g., Current Contents Connect) allow users to export search results in one of several standard file formats (ASCII, Comma Delimited, tagged, etc.) for subsequent incorporation within a bibliographic software database (for example, EndNote). Although atypical, such functionality could significantly enhance the use and manipulation of ECD records.

## General Limitations

While ECD provides a Help feature, it is not as comprehensive or complete as desired. For example, though definitions are provided for several bibliographic fields with sample queries, many definitions and associated examples are of limited value ("Subject—Terms used to describe key concepts in the resource/publication. Includes keywords"; "Report Number—Identifying number assigned to the resource/publication"; "OSTI ID—OSTI identifying number"). In addition, an explanation is provided for a feature that is not available ("Bibliographic Info and Available Text—Bibliographic record as well as all available text").

A significant number of records in the ECD database incorrectly identify specific types of publications. For example, although ECD has an established designation for doctoral dissertations ("Thesis/Dissertation"), one on the topic of "chemically-leaned fuel-air mixtures for control of automotive emissions" is categorized as a Miscellaneous resource or document type.

The time-out function in ECD is relatively short and the user is not informed about a pending session termination. In addition, the ECD site offers no information about a time-out feature.

### FULL TEXT

While fulltext access in ECD is noteworthy, it is not as extensive as desired. In addition, there is no indication in a search results listing of fulltext availability for an entry; such access can only be ascertained by retrieving the full record. In addition, one cannot limit a search to those records with a fulltext link nor sort by this feature.

As a PURL Web address is provided for those records with a fulltext link, this address should be hotlinked to allow direct access as an alternative to the current practice of indirect access from the fulltext icon.

While documents can be available in a variety of fulltext formats, in addition to PDF, notably Microsoft Word, WordPerfect, HyperText Markup Language, PostScript, Tagged Image File Format Group 4, Standard Generalized Markup Language, or Extensible Markup Language, there is no mention of the software, utilities, or browser that may be required to view alternative formats.

As found in an increasing number of citational and abstract databases (e.g., WebSPIRS), ECD should offer an option for the local library to link its fulltext holdings to relevant ECD records.

## General Recommendations

The Office of Scientific and Technical Information, U.S. Department of Energy, provides a number of general and specialized energy-related databases. Among these are:

- DOE Information Bridge <http://www.osti.gov/bridge/>. The DOE Information Bridge is "an open source to full-text and bibliographic records of Department of Energy (DOE) research and development reports in physics, chemistry, materials, biology, environmental sciences, energy technologies, engineering, computer and information science, renewable energy, and other topics." "The Information Bridge consists of full-text documents produced and made available by the Department of Energy National Laboratories and grantees from 1995 forward."
- GrayLIT Network <http://www.osti.gov/graylit/>. The GrayLIT Network "makes the gray literature of U.S. Federal Agencies easily accessible over the internet. It taps into the search engines of distributed gray literature collections, enabling the user to find information without first having to know the sponsoring agency. The GrayLIT Network is the world's most comprehensive portal to Federal gray literature. By offering a mode of communication for this hard-to-find class of literature, the GrayLIT Network enables convenient access by the American public to government information."
- PrePRINT Network <http://www.osti.gov/preprint/>. The PrePRINT Network provides access to electronic preprints available from diverse sites, offering one-stop shopping for preprints in the areas of physics, materials, chemistry, mathematics, biology, environmental sciences and other areas related to the research interests of the U.S. Department of Energy.
- PubSCIENCE <http://pubsci.osti.gov/>. PubSCIENCE is "a World Wide Web service developed…to facilitate searching and accessing peer reviewed journal literature in the physical sciences and other energy-related disciplines." PubSCIENCE allows the user to search across abstracts and citations of multiple publishers at no cost. Once the user has found an interesting abstract, a hyperlink provides access to the publisher's server to obtain the full text article. The article will come up immediately if the user or his/her organization has a subscription to the journal.

While unique, these, and other databases produced by the Office of Scientific and Technical Information, include features and functionalities that facilitate access and use. Among those lacking in the current version of the Energy Citations Database, are the following:

- GrayLIT Network allows users to specify the total number of records to be retrieved (10, 25, 50, 100, 150, 200, 250).
- GrayLIT Network enables user to specify the source collections for a search. With the wide range of document types in ECD, it would be useful to permit users to select from among the groups of documents (for example, Technical Reports only).
- PrePRINT Network provides centralized access to more than "7,600 servers housing over 400,000 documents." In view of its scope and the availability of full text, this extensive e-print collection is an ideal source of additional candidate documents for ECD.
- PrePRINT Network enables users to subscribe to an alerting service that automatically notifies a subscriber to database updates that match a stored search profile. Such a feature would be of great benefit to the worldwide energy community.
- PubSCIENCE allows users to limit a search to records with a fulltext link. This feature would facilitate ready and direct access to desired information sources.

Energy Citations Database is one of several multidisciplinary and subject specific databases accessible via the EnergyPortal Search

<http://kratos.osti.gov:1999/>, "a distributed search of energy-related collections" provided by OSTI. The DOE Information Bridge and PubSCIENCE, as well as Energy Citations Database, are among those that can be searched individually or concurrently in this service. In view of the breadth of the databases offered, an explicit link should be provided to this gateway site from with ECD.

Several specialized information sources may be found on the OSTI Energy, Science, and Technology Information Web site <http://www.|osti.gov/resource.html> including select key indexing publications for energy-related databases:

- International Energy: Subject Categories and Scope <http://www.etde.org/edb/scope.pdf>
- International Energy: Subject Thesaurus <http://www.etde.org/edb/etdesuth.pdf>, and
- International Energy Subject Thesaurus Supplement <http://www.etde.org/edb/sts0008.pdf>

These publications should be listed and linked in the ECD site to facilitate the identification of candidate subject codes, categories, and descriptors for subject searches.

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## Author's Biography

**Gerry McKiernan** currently serves as a Science and Technology Librarian and Bibliographer at Iowa States University (ISU) with specialization in Computer Science and selected fields of Engineering. Before assuming his present position, Gerry served as the Coordinator of the Science and Technology Section of the ISU Reference and Instructional Services Department at Iowa State and as an Information Services Librarian and Reference Librarian with specialization in the life and physical sciences.

Prior to joining ISU in April 1987, Gerry served as the Museum Librarian of the Carnegie Museum of Natural History in Pittsburgh, Pennsylvania, and as an Assistant Librarian with the Library of the New York Botanical Garden in the Bronx, New York, his hometown.

Gerry is a member of the editorial board of *Science and Technology Libraries* and a contributing editor for *Library Hi Tech News.* He has been the contributing editor for the "News from the Field" column for the *Journal of Internet Cataloging* since 1997, and earlier this year was appointed a member of the editorial board of *The Serials Librarian.* He is the Curator of CyberStacks, a virtual science and technology reference collection, and compiler of several Web registries and clearinghouses. Among his more recent projects are IDEALS: A Registry of Emerging Innovative Augmented Digital Library Services and LiveRef: A Registry of Real-Time Digital Reference Services. ■