

# SciTech XML Data Service Query Parameters and Options

## Topics

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[About](#)

[Getting Started](#)

[Using the XML Data Services](#)

1.0: [Wildcards](#)

1.1: [Multiple Search Terms](#)

1.2: [Exact Phrase Search](#)

1.3: [Search Options](#)

1.4: [Requesting Additional Pages](#)

1.5: [Helpful Tips](#)

## About

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SciTech Connect is a portal to free, publicly-available DOE-sponsored R&D results including technical reports, bibliographic citations, journal articles, conference papers, books, multimedia and data information. SciTech Connect is a consolidation of two core DOE search engines, the Information Bridge and the Energy Citations Database. SciTech Connect incorporates all of the R&D information from these two products into one search interface. SciTech Connect was developed by the U.S. Department of Energy (DOE) Office of Scientific and Technical Information (OSTI) to increase access to science, technology, and engineering research information from DOE and its predecessor agencies.

## Getting Started

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The XML data service is available from the URL listed below.

<i>Data Service Name</i>	<i>XML Data Service URL</i>
SciTech Connect Data	<a href="http://www.osti.gov/scitech/scitechxml">http://www.osti.gov/scitech/scitechxml</a>

This service accepts the parameters discussed below.

## Using the XML Data Services

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The parameters for each service are: `?CriteriaKeyword=` where `CriteriaKeyword` is replaced by one of the criteria keywords listed below. A blank query will return the entire result set for the

**SciTech Connect XML Product Data Services Manual version 1.1**

given XML Service. The maximum number of records returned per page is 3000. **Please note that criteria keywords are case-sensitive and must be entered as shown in the table below.**

<i>Criteria Keyword</i>	<i>Data/Field Searched</i>
searchFor	by all metadata fields and full text
osti_id	by the unique OSTI Identifier assigned to a record
FullText	by document full text only
Biblio	by all bibliographic metadata fields (Title, Author, Subject, etc.) only
Author	by author/creators
Title	by document titles
Subject	by document keywords/subject
Identifier	by document identifying numbers (e.g., report number.)
SponsorOrg	by Sponsoring Organization (e.g. USDOE)
ResearchOrg	by Originating Research Organization
Type	by publication type (e.g., Book, Conference, Technical Report, Dataset etc.)
PubDateFrom	limit results to documents published after the specified date (in DD/MM/YYYY format)
PubDateTo	limit results to documents published before the specified date (in DD/MM/YYYY format)
EntryDateFrom	limit results to documents entering or being updated in IB after the specified date (in DD/MM/YYYY format)
EntryDateTo	limit results to documents entering or being updated in IB before the specified date (in DD/MM/YYYY format)
Conference	by conference title (searches combined “relation” metadata field)
Journal	by journal title (searches combined “relation” metadata field)
Patent	by patent (searches combined “relation” metadata field)
Language	by language
FullTextOnly	any non-empty value = limit results to documents with full text data
FullTextMatch	1 = limit results to documents with full text data, 0 = limit results to documents without full text data
Country	by publication country
StartPubYear, StartPubMonth, StartPubDay	if provided a minimum of StartPubYear, limit results to documents published after the specified date

<i>Criteria Keyword</i>	<i>Data/Field Searched</i>
EndPubYear, EndPubMonth, EndPubDay	if provided a minimum of EndPubYear, limit results to documents published before the specified date
StartSysYear, StartSysMonth, StartSysDay	if provided a minimum of StartSysYear, limit results to documents updated after the specified date
EndSysYear, EndSysMonth, EndSysDay	if provided a minimum of EndSysYear, limit results to documents updated before the specified date
StartAddYear, StartAddMonth, StartAddDay	if provided a minimum of StartAddYear, limit results to documents added after the specified date
EndAddYear, EndAddMonth, EndAddDay	if provided a minimum of EndAddYear, limit results to documents added before the specified date

### Example

The URL for a search on “geodesy” in all fields of Geothermal data would be:

<http://www.osti.gov/scitech/scitechxml?searchFor=geodesy>

The results would look similar to the example record below.

```

<?xml version="1.0" ?>
- <results queryid="0">
  <count exact="false">19266</count>
  <display start="1" end="25" />
- <row rownumber="1">
  <ostiid>765115</ostiid>
  <identifier>DOE/ID/13680</identifier>
  <title>Advanced Geothermal Turbodrill</title>
  <authors>W. C. Maurer</authors>
  <pubdate>2000 May 01</pubdate>
  <sponsororg>USDOE Office of Geothermal Technologies (EE-12) (US)</sponsororg>
  <researchorg>USDOE Idaho Operations Office, Idaho Falls, ID; Maurer Engineering, Inc.,
    Houston, TX (US)</researchorg>
  <language>English</language>
  <entrydate>2006 Aug 24</entrydate>
  <resourcetype>Technical Report</resourcetype>
  <fulltext size="4998592"
    mimetype="application/pdf">http://www.osti.gov/geothermal/servlets/purl/765115-
    MDkgZE/webviewable/</fulltext>
  <citation>http://www.osti.gov/geothermal/product.biblio.jsp?osti_id=765115</citation>
  <subject>15 GEOTHERMAL ENERGY; 03 NATURAL GAS; GEOTHERMAL ENERGY;
    GEOTHERMAL FIELDS; GEOTHERMAL FLUIDS; GEOTHERMAL POWER
    PLANTS; GEOTHERMAL RESOURCES; GEOTHERMAL WELLS; IGNEOUS
    ROCKS; METAMORPHIC ROCKS; NATURAL GAS WELLS;
    TURBODRILLS</subject>
  <subjectrelated>Geothermal Legacy; POWER PLANT; GEOTHERMAL WELLS;
    CRYSTALLINE ROCK FORMATIONS; DOWNHOLE TEMPERATURE; FLUID

```

COMMUNICATION; DIRECTIONAL WELL; FRACTURES; HOT GEOTHERMAL FLUIDS; ELASTOMERS; TURBODRILL</subjectrelated>  
</row>

## 1.0: Wildcards

Queries using wildcard operators can be performed. The asterisk (\*) is used to search for words with spelling variations or contain a specified pattern of characters.

### Example

The following URL will return all the items with “sustain” and any words with “sustain” as a stem in the title.

[http://www.osti.gov/scitech/scitechxml?Title=sustain\\*](http://www.osti.gov/scitech/scitechxml?Title=sustain*)

The following truncated results are returned. The search term has been highlighted.

<title>Current **sustained** by a travelling wave with phase velocity increasing in time</title>  
<title>Nuclear energy for the preservation of the global environment and **sustainable** development</title>  
<title>Self **sustaining** fusion reactor by dynamo action</title>  
<title>Current **sustainment** of a field-reversed configuration by rotating magnetic field</title>

## 1.1: Multiple Search Terms

Multiple search terms and terms that require spaces can be separated by the plus symbol (+) or using the Boolean AND operator.

### Example

The URL for a search for “particle” and “accelerator” would be:

<http://www.osti.gov/scitech/scitechxml?searchFor=particle+accelerator>

or:

<http://www.osti.gov/scitech/scitechxml?searchFor=particle%20AND%20accelerator>

The characters, %20, must be added before and after the AND operator.

The following truncated results are returned. Search terms have been highlighted.

```
<?xml version="1.0" encoding="UTF-8" ?>
- <rdf:RDF xmlns:dc="http://purl.org/dc/elements/1.1/"
  xmlns:dcq="http://purl.org/dc/terms/" xmlns:rdf="http://www.w3.org/1999/02/22-rdf-syntax-ns#">
```

```
- <records queryid="0" count="29014" morepages="true" start="1" end="100">
- <record rownumber="1">
  <dc:title>Particle-beam fusion research facilities at Sandia National Laboratories</dc:title>
  <dc:creator>NONE</dc:creator>
  <dc:subject>70 PLASMA PHYSICS AND FUSION; INERTIAL CONFINEMENT;
  PARTICLE BEAM FUSION ACCELERATOR; ION BEAMS; ELECTRON BEAMS;
  X-RAY SOURCES; BEAM PRODUCTION; INERTIAL FUSION
  DRIVERS</dc:subject>
  <dc:subjectRelated />
  <dc:description>Sandia research in inertial-confinement fusion (ICF) is based on pulse-
  power capabilities that grew out of earlier developments of intense relativistic electron-
  beam (e-beam) radiation sources for weapon effects studies. ICF involves irradiating a
  deuterium-tritium pellet with either laser light or particle beams until the center of the
  pellet is compressed and heated to the point of nuclear fusion. This publication focuses
  on the use of particle beams to achieve fusion, and on the various facilities that are
  used in support of the particle-beam fusion (PBF) program.</dc:description>
```

Searches using the Boolean OR operator can also be performed, retrieving records with one search term or the other.

### Example

The URL for a search for “particle” or “accelerator” would be:

<http://www.osti.gov/scitech/scitechxml?searchFor=particle%20OR%20accelerator>

Like the AND operator, the characters, %20, must be added before and after the OR operator.

## 1.2: Exact Phrase Search

Exact phrases can be searched by surrounding the search terms in double quotation marks (“ ”).

### Example

The following URL searches records containing the exact phrase “particle accelerator” in the title.

[http://www.osti.gov/scitech/scitechxml?Title=particle accelerator](http://www.osti.gov/scitech/scitechxml?Title=particle%20accelerator)

The following truncated results are returned. The search phrase has been highlighted

```
<dc:title>Laser Particle Accelerator Program</dc:title>
<dc:title>Particle-accelerator decommissioning</dc:title>
<dc:title>An active particle accelerator</dc:title>
<dc:title>Automation of particle accelerator control</dc:title>
```

## 1.3: Search Options

The following table lists various search options that can be used to sort results.

<i>Additional Criteria Keywords</i>	<i>Search Option</i>
nrows	Indicates the number of records desired per page of results. Once this value is specified, it is retained for all other searches in the search session. The default number of results per page is 100. The maximum number of records returned per page is 3000.
page	Request a particular page of search results. The first page of results is returned by default.
format	xml (or blank) = output in xml format, csv = output in csv format

One or more search options may be specified in the URL. Specify each as with search criteria, separated by ampersands (“&”). The number of desired results per page and an option to request additional pages of information may also be specified.

## 1.4: Requesting Additional Pages

By default, a search request returns the first page of results if additional pages are available. The page search option can return multiple pages of search results. The maximum records per page returned is 3000; to access additional records use the page parameter. **Please note that the page count begins at zero (0).**

### Example

The second page of results for a search on plasma can be obtained with the following URL.

<http://www.osti.gov/scitech/scitechxml?searchFor=plasma&page=1>

The number of records (count), starting record, and end record are found near the top of the XML results.

```
- <records queryid="0" count="17771" morepages="true" start="101" end="200">
```

The “morepages” tag indicates whether or not additional pages for a specific search are available. If additional pages are available, then the tag reads: `morepages="true"`. If additional pages are not available, then the tag reads: `morepages="false"`.

## 1.5: Helpful Tips

By default, results are sorted by relevance. While relevance sorting is helpful in some circumstances, sorting results by publication date might be more helpful in most other situations. This ensures the results viewed first are the most up-to-date records.

## SciTech Connect XML Product Data Services Manual version 1.1

Use the <dcq:mediaSequence> tag to tell if a record has had its full-text updated. If these field values are compared across downloads a higher number would indicate a change in the associated full-text file.

The examples provided in this document were copied from XML results in Microsoft Internet Explorer. Results may appear slightly different in other browser windows.