

# DOepatents XML Product Data Services Query Parameters and Options

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## About

Several XML data services are currently available from OSTI collections. This service searches DOepatents Database data.

The examples provided in this document were copied from XML results in Microsoft Internet Explorer.

Results may appear slightly different in other browser windows.

## Getting Started

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

| <i>Data Service Name</i> | <i>XML Data Service URL</i>   |
|--------------------------|---|
| DOepatents Data          | <a href="http://www.osti.gov/doepatents/doepatentsxml">http://www.osti.gov/doepatents/doepatentsxml</a> |

The default number of records returned per page is 100 and the maximum number of records returned per page is 3000.

This service accepts the parameters discussed below.

## Using the XML Data Services

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 given XML Service. Please note that criteria keywords are case-sensitive and must be entered as shown in the table below.

| <b><i>Criteria Keyword</i></b> | <b><i>Data/Field Searched</i></b>   |
|--------------------------------|---|
| searchFor                      | by all metadata fields and full text  |
| 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  |
| Language                       | by document publication language  |
| Country                        | by document publication country   |
| Subject                        | by document keywords/subject  |
| Identifier                     | by document identifying numbers (e.g., report   |
| SponsorOrg                     | by Sponsoring Organization (e.g. USDOE)   |
| ResearchOrg                    | by Originating Research Organization  |
| Type                           | by publication type (e.g., Book, Technical Report, Dataset etc.)                                      |
| PubDateFrom                    | limit results to documents published after the specified date (in MM/DD/YYYY format)                  |
| PubDateTo                      | limit results to documents published before the specified date (in MM/DD/YYYY format)                 |
| EntryDateFrom                  | limit results to documents entering or being updated after the specified date (in MM/DD/YYYY format)  |
| EntryDateTo                    | limit results to documents entering or being updated before the specified date (in MM/DD/YYYY format) |

### **Example**

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

<http://www.osti.gov/doepatents/doepatentsxml?searchFor=graphite>

The results would look similar to the example record below.

```

- <record rownumber="4">
  <dc:title>Electrochemical method of producing nano-scaled graphene platelets</dc:title>
  <dc:creator>Zhamu, Aruna; Jang, Joan; Jang, Bor Z.</dc:creator>
  <dc:subject/>
  <dc:subjectRelated/>
  <dc:description>A method of producing nano-scaled graphene platelets with an average thickness smaller than 30 nm from a layered graphite material. The method comprises (a) forming a carboxylic acid-intercalated graphite compound by an electrochemical reaction; (b) exposing the intercalated graphite compound to a thermal shock to produce exfoliated graphite; and (c) subjecting the exfoliated graphite to a mechanical shearing treatment to produce the nano-scaled graphene platelets. Preferred carboxylic acids are formic acid and acetic acid. The exfoliation step in the instant invention does not involve the evolution of undesirable species, such as NO.sub.x and SO.sub.x, which are common by-products of exfoliating conventional sulfuric or nitric acid-intercalated graphite compounds. The nano-scaled platelets are candidate reinforcement fillers for polymer nanocomposites. Nano-scaled graphene platelets are much lower-cost alternatives to carbon nano-tubes or carbon nano-fibers.</dc:description>
  <dcq:publisher/>
  <dcq:publisherAvailability/>
  <dcq:publisherResearch>Nanotek Instruments, Inc. (Dayton, OH)</dcq:publisherResearch>
  <dcq:publisherSponsor>USDOE</dcq:publisherSponsor>
  <dcq:publisherCountry>United States</dcq:publisherCountry>
  <dc:date>2013-09-03</dc:date>
  <dc:language>English</dc:language>
  <dc:type>Patent</dc:type>
  <dcq:typeQualifier/>
  <dc:relation/>
  <dc:coverage/>
  <dc:format>Medium: ED</dc:format>
  <dc:identifier>OSTI ID: 1092763, Legacy ID: OSTI ID: 1092763</dc:identifier>
  <dc:identifierReport>8,524,067</dc:identifierReport>
  <dcq:identifierDOEcontract>None</dcq:identifierDOEcontract>
  <dc:identifierOther>Other: 11/881,388</dc:identifierOther>
  <dc:doi/>
  <dc:rights>Patent Assignee: Nanotek Instruments, Inc. (Dayton, OH)</dc:rights>
  <dc:dateEntry>2013-09-16</dc:dateEntry>
  <dc:ostiId>1092763</dc:ostiId>
  <dcq:identifier-purl
    type="text/html">http://www.osti.gov/doepatents/servlets/purl/1092763</dcq:identifier-purl>
  <dcq:identifier-citation>http://www.osti.gov/doepatents/biblio/1092763</dcq:identifier-citation>
</record>

```

## Additional Search Options

Some of the data XML services may specify additional searching options. These special criteria apply only to those particular data services.

| <i>Additional Criteria Keywords</i> | <i>Search Option Selected</i>                      | <i>XML Service</i>  |
|-------------------------------------|--|---|
| PatentNumber                        | Searches for a specified patent number             | Only applies to the <b>DOePatents Database XML Data Service</b> |
| PatentApplicationNumber             | Searches for a specified patent application number | Only applies to the <b>DOePatents Database XML Data Service</b> |
| Inventors                           | search within author only                          | Only applies to the <b>DOePatents Database XML Data Service</b> |
| LabTechCenter                       | search within originating_research_org             | Only applies to the <b>DOePatents Database XML Data Service</b> |
| SponsoringOffice                    | search within sponsor_org only                     | Only applies to the <b>DOePatents Database XML Data Service</b> |

|            |                                    |   |
|------------|------------------------------------|---|
| ContractNo | search within contract_nos only    | Only applies to the <b>DOePatents Database XML Data Service</b> |
| Assignee   | search within patent_assignee only | Only applies to the <b>DOePatents Database XML Data Service</b> |
| Abstract   | search within description only     | Only applies to the <b>DOePatents Database XML Data Service</b> |

## 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 of DOepatents data.

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

The following truncated results are returned.

```
<dc:title>Method and apparatus for sustaining viability of biological cells on a substrate</dc:title>
```

```
<dc:title>Energetic composite and system with enhanced mechanical sensitivity to initiation of self-sustained reaction</dc:title>
```

```
<dc:title>Method and apparatus for sustaining viability of biological cells on a substrate</dc:title>
```

```
<dc:title>Sustainable wall construction and exterior insulation retrofit technology process and structure</dc:title>
```

## 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 “carbon” and “fiber” in the DOepatents Collection:

<http://www.osti.gov/doespatents/doespatentsxml/?searchFor=carbon+fiber>

or:

<http://www.osti.gov/doespatents/doespatentsxml?searchFor=carbon%20AND%20fiber>

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

The following truncated results are returned.

```
- <record rownumber="1">
  <dc:title>System to continuously produce carbon fiber via microwave assisted plasma
  processing</dc:title>
  <dc:creator>White, Terry L; Paulauskas, Felix L; Bigelow, Timothy S</dc:creator>
  <dc:subject/>
  <dc:subjectRelated/>
  <dc:description>A method for continuously processing carbon fiber including establishing a
  microwave plasma in a selected atmosphere contained in an elongated chamber having a
  microwave power gradient along its length defined by a lower microwave power at one end
  and a higher microwave power at the opposite end of the elongated chamber. The elongated
  chamber having an opening in each of the ends of the chamber that are adapted to allow the
  passage of the fiber tow while limiting incidental gas flow into or out of said chamber. A
  continuous fiber tow is introduced into the end of the chamber having the lower microwave
  power. The fiber tow is withdrawn from the opposite end of the chamber having the higher
  microwave power. The fiber is subjected to progressively higher microwave energy as the
  fiber is being traversed through the elongated chamber.</dc:description>
  <dcq:publisher/>
  <dcq:publisherAvailability/>
  <dcq:publisherResearch>ORNL (Oak Ridge National Laboratory (ORNL), Oak Ridge, TN (United
  States))</dcq:publisherResearch>
  <dcq:publisherSponsor>USDOE</dcq:publisherSponsor>
  <dcq:publisherCountry>United States</dcq:publisherCountry>
  <dc:date>2014-03-25</dc:date>
  <dc:language>English</dc:language>
  <dc:type>Patent</dc:type>
  <dcq:typeQualifier/>
  <dc:relation/>
  <dc:coverage/>
  <dc:format>Medium: ED</dc:format>
  <dc:identifier>OSTI ID: 1128681, Legacy ID: OSTI ID: 1128681</dc:identifier>
  <dc:identifierReport>8,679,592</dc:identifierReport>
  <dcq:identifierDOEcontract>AC05-00OR22725</dcq:identifierDOEcontract>
  <dc:identifierOther>Other: 12/897,372</dc:identifierOther>
  <dc:doi/>
  <dc:rights>Patent Assignee: UT-Battelle, LLC (Oak Ridge, TN)</dc:rights>
  <dc:dateEntry>2014-04-21</dc:dateEntry>
  <dc:ostiId>1128681</dc:ostiId>
  <dcq:identifier-purl
  type="text/html">http://www.osti.gov/doi/patents/servlets/purl/1128681</dcq:identifier-
  purl>
  <dcq:identifier-citation>http://www.osti.gov/doi/patents/biblio/1128681</dcq:identifier-citation>
</record>
```

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 “carbon” or “fiber” in the DOepatents would be:

<http://www.osti.gov/doi/patents/doi/patentsxml?searchFor=carbon%20OR%20fiber>

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

### 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 “carbon fiber” in the title of DOepatents records.

[http://www.osti.gov/doepatents/doepatentsxml?Title="carbon fiber"](http://www.osti.gov/doepatents/doepatentsxml?Title=)

OR

<http://www.osti.gov/doepatents/doepatentsxml?Title=%22carbon%20fiber%22>

Note: In your search, use %22 in place of quotation marks and %20 in place of a space.

The following truncated Titles are returned.

<dc:title>System to continuously produce carbon fiber via microwave assisted plasma processing</dc:title>

<dc:title>Apparatus and method for carbon fiber surface treatment</dc:title>

<dc:title>System to continuously produce carbon fiber via microwave assisted plasma processing</dc:title>

<dc:title>Carbon fiber manufacturing via plasma technology</dc:title>

## Search Options

The default number of results per page is 100 and the maximum number of records returned per page is 3000.

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

| <b><i>Additional Criteria Keywords</i></b> | <b><i>Search Option</i></b>   |
|--|---|
| SortBy                                     | Sort results by a field name. Valid field names include: publication_date, creator, title, date_entry, publisher_sponsor, publisher_research, and relv (relevance score). By default, searches are sorted by relevance. |
| SortOrder                                  | Selects the direction of the sort, either ASC (ascending) or DESC (descending). The default is DESC.  |
| query_id                                   | Indicates the ID of a query previously performed in a browser session.  |

|       |  |
|-------|--|
| nrows | Indicates the number of records desired per page of results.                                   |
| page  | Request a particular page of search results. The first page of results is returned by default. |

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.

## Sorting

Results may be sorted by a number of specifications including: `publication_date`, `creator`, `title`, `date_entry`, and `relv` (relevance). Results can be sorted either in ascending (ASC) or descending (DESC) order. Results are sorted in descending order by default.

### Example

The URL for a DOepatents data search for the exact phrase “carbon fiber” in the title field sorted by the date of publication would be:

[http://www.osti.gov/doepatents/doepatentsxml?Title="carbon fiber"&SortBy=publication\\_date](http://www.osti.gov/doepatents/doepatentsxml?Title=)

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.

## 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 are 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/doepatents/doepatentsxml?searchFor=plasma&page=2>

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

```
<records end="200" start="101" morepages="true" count="413">
```

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"`.

## Additional Formats

Results may be returned in Comma-Separated Values (CSV) format by using the “format” parameter.

**Example**

The URL for a DOepatents data search for the exact phrase “sustainable development” in the full text field returned in CSV format would be:

<http://www.osti.gov/oeepatents/oeepatentsxml?Title=%22carbon%20fiber%22&format=csv>