

# THOMSON REUTERS LINKS ARTICLE MATCH RETRIEVAL SERVICE

VERSION 1.5



THOMSON REUTERS

# CONTENTS

- Overview ..... 1
- Support ..... 2
- Change History ..... 3
- Data Accepted by Links Article Match Retrieval Service..... 4
  - Guidelines for Specifying Citations..... 4
- Data returned by Links Article Match Retrieval Service ..... 6
- Request/Response API ..... 8
- Request API for Web of Science Data ..... 9
  - Description of XML elements ..... 10
- Response API for Web of Science Data..... 13
  - Description of XML Elements ..... 13
- Request API for JCR Data..... 15
  - Description of XML Elements ..... 16
- Response API for JCR Data..... 18
  - Description of XML Elements ..... 18
- Appendix 1 Error Messages ..... 20
  - No Result Found..... 20
  - Response Errors..... 20
  - Authentication Errors ..... 21
  - Entitlement Errors..... 22
  - Citation Errors..... 23
  - JCR Error..... 24
- Appendix 2 Bandwidth Throttling ..... 25

## OVERVIEW

Links Article Match Retrieval Service (Links AMR) is an API service that supplies article data from *Web of Knowledge*<sup>SM</sup>. The data elements available for retrieval are listed on pages 6 and 7. The specific elements that you retrieve are identified in your service agreement.

This guide describes the syntax of API requests for Web of Science and JCR data. You can cut and paste the code from this guide into your client application for submitting API requests. You can then modify the content of the XML elements in order to specify the data you want to receive and the articles or journals for which you want matching data.

In order to ensure consistent and reliable performance, Links AMR employs throttling to limit the number of citations processed per period. Appendix 2 provides more information about throttling.

## SUPPORT

If you have questions about Links Article Match Retrieval Service, please visit our support page at <http://ip-science.thomsonreuters.com/support>. This page has links to our support Knowledgebase, the local telephone numbers, and hours of operation. When you click on the **Open eTicket** tab, your issue will be immediately routed to your local support team.

## CHANGE HISTORY

VERSION	CHANGE
1.3	Bandwidth throttling added to the service. See Appendix 2.
1.3	Information about data updates to Times Cited and Related Records® counts (page 11).
1.4	Addition of PMID to table of Web of Science data returned by the service (page 6).
1.4	Requests for data submitted to the "Lite" service must include an identifier for each article specified in the request (page 5).
1.4	New error message added that notifies users of the "Lite" service of an invalid request (page 22).

## DATA ACCEPTED BY LINKS ARTICLE MATCH RETRIEVAL SERVICE

This table lists the data elements that you may supply in order to identify articles for which you want matching data.

**Table 1 - Article Data**

DATA ELEMENT	CATEGORY	DESCRIPTION	EXAMPLE
DOI	Identifier	Digital Object Identifier	10.1234/2007-0028
UT	Identifier	A unique identifier for a journal article assigned by Thomson Reuters.	000226260000003
PMID	Identifier	A unique identification number assigned to records in MEDLINE. PMID stands for PubMed ID.	3507846
Article Number	Bibliographic	A unique number assigned to an article by the journal publisher.	122001
ISSN	Bibliographic	International standard serial number	0300-8126
ISBN	Bibliographic	International book serial number	1-57331-474-9
Author	Bibliographic	Author of the article. If the article has more than one author, you may specify up to five. The authors should be listed in the same order in which they appear in the source reference.	Chang EH
Year	Bibliographic	Year of publication	2002
Book Title	Bibliographic	Book title or title of a volume of conference proceedings.	Apoptosis: From Signaling Pathways to Therapeutic Tools
Book Series Title	Bibliographic	Book series title.	Annals of the New York Academy of Sciences
Article Title	Bibliographic	Title of the article	Hibernation reduces pancreatic amylase levels in ground squirrels
Journal Title	Bibliographic	Full title of the journal. See the note below.	Journal of Plant Physiology
Volume	Bibliographic	Journal volume	25
Issue	Bibliographic	Journal issue	5
Start page	Bibliographic	Start page of the article	31

## GUIDELINES FOR SPECIFYING CITATIONS

### Identifiers

In most cases, any one of the identifiers (DOI, PMID, UT) is sufficient to uniquely identify an article. You may include multiple identifiers for a single article. You may also include bibliographic data along with one or more identifiers.

## Bibliographic Data

You may include bibliographic data along with an identifier to specify an article. If an identifier is not available, you must supply all of the following bibliographic elements:

1. Journal title
2. Volume
3. Issue
4. Start page or article number

If you do not know the journal title, the combination of author and ISSN in place of journal title should return results. For example, each of the following combinations should uniquely identify an article:

- Journal title + volume + issue + start page
- Journal title + volume + issue + article number
- Author + ISSN + volume + issue + start page
- Author + ISSN + volume + issue + article number

You may include more bibliographic data than the minimum required. For example, you may add an author name to a request that uses the journal title, volume, issue and page to specify the citation. This would be essential if two or more articles appear on the same page of a journal.

Note: If you have been granted access to the “Lite” version of the service, the Links Article Match Retrieval Service will not allow you to request matching data for articles specified by bibliographic elements only. You will receive an error message if your request does not include an identifier (DOI, UT, PMID) for each article.

## About Journal Titles

- If you know the ISSN, always include it in your request.
- If the full journal title includes a subtitle, use only the main title in the request. Many book series and published proceedings contain subtitles. For example, the title *Proceedings of the Sixth International Conference on Difference Equations – New Progress in Difference Equations* should be truncated to *Proceedings of the Sixth International Conference on Difference Equations*.
- Journal titles can change. If the title you submit has been superseded by another title for the same publication, a match may not be found.
- Consult the master journal list available on <http://ip-science.thomsonreuters.com/mjl/> for full journal titles.
- The XML element used to identify a journal title must include an entity reference or CDATA construct. See page 12 for more information and an example.

## About Author Names

The author name you supply must match the name in our database. If the name contains a particle such as *de* or *van*, or if it contains a hyphen or an apostrophe, a match may not be found. If no match is found, try submitting another request using a variant spelling (*VanDyke* instead of *Van Dyke*), or omit the author name.

## DATA RETURNED BY LINKS ARTICLE MATCH RETRIEVAL SERVICE

Table 2 - Web of Science Data

DATA ELEMENT	DESCRIPTION	EXAMPLE
Times Cited	The number of times a published article was cited by other papers.	30
UT	A unique identifier for a journal article assigned by Thomson Reuters.	000226260000003
DOI	Digital Object Identifier	10.1234/2007-0028
PMID	A unique identification number assigned to records in MEDLINE. PMID stands for PubMed ID.	3507846
Source URL	URL to the full record from <i>Web of Science</i>	CDATA[http://links.int.acad.isinet.com/gateway/Gateway.cgi?GWVersion=2&SrcApp=PARTNER_APP&SrcAuth=PartnerName_test&KeyUT=000203011100014&DestLinkType=FullRecord&DestApp=WOS_CPL&UsrCustomerID=9919084cf2cf55a9cc9fe2eb17a1b60b
Citing Article URL	URL to the list of citing articles in <i>Web of Science</i>	CDATA[http://links.int.acad.isinet.com/gateway/Gateway.cgi?GWVersion=2&SrcApp=PARTNER_APP&SrcAuth=PartnerName_test&KeyUT=000203011100014&DestLinkType=CitingArticles&DestApp=WOS_CPL&UsrCustomerID=9919084cf2cf55a9cc9fe2eb17a1b60b
Related Records® URL	URL to the list of Related Records in <i>Web of Science</i>	CDATA[http://links.int.acad.isinet.com/gateway/Gateway.cgi?GWVersion=2&SrcApp=PARTNER_APP&SrcAuth=PartnerName_test&KeyUT=000203011100014&DestLinkType=RelatedRecords&DestApp=WOS_CPL&UsrCustomerID=9919084cf2cf55a9cc9fe2eb17a1b60b

Each URL contains values that identify you and the application that uses the URL:

- You may replace the SrcApp value with the name of the application into which the URL is placed. This information is useful for tracking purposes. However, this information is not required, and the service will work if you leave the value as PARTNER\_APP.
- The SrcAuth value (PartnerName in the example above) will automatically be replaced by a term that identifies you as the user of the service. You need not edit or change this value.

### Data Updates

#### Times Cited

The Times Cited number for an article can change when new data are added to Web of Science. The database is updated once a week on Friday. Consequently, if you wish to obtain the most recent Times Cited count for an article, you need only request it once a week and then cache the data for seven days.

#### Related Records

Once you have obtained the URL for Related Records, you do not need to request it again. The URL will always link to the most recent list of Related Records for the article.

### How to Display Links to Web of Science

The text that should appear on the user interface depends on the link type. The text should be hyperlinked, redirecting the user to the appropriate page in *Web of Science*. Note that both *Related Records* and *Web of*



*Science* are registered trademarks. The registered trademark symbol must be placed after the mark as shown below.

LINK TYPE	TEXT TO DISPLAY
Full record link	View record in Web of Science®
Citing articles link	View citing articles in Web of Science®
Related Records® link	View Related Records® in Web of Science®

In addition, you should indicate that the Times Cited count comes from *Web of Science*. The number should be prefaced by Web of Science®, as illustrated below:

**Web of Science® Times Cited: 35**

You may hyperlink the number to the Citing Articles page in Web of Science.

**Table 3 - JCR Data**

DATA ELEMENT	DESCRIPTION	EXAMPLE
Journal Impact Factor Trend Graph URL	URL to the graph depicting the Journal Impact Factor for a five-year period.	<a href="http://links-qa.isiknowledge.com/gateway/Gateway.cgi?GWVersion=2&amp;SrcApp=PARTNER_APP&amp;SrcAuth=PartnerName_test&amp;KeyRecord=1040-446&amp;PointOfEntry=Impact&amp;DestApp=JCR&amp;UsrCustomerID=xxxxxx">http://links-qa.isiknowledge.com/gateway/Gateway.cgi?GWVersion=2&amp;SrcApp=PARTNER_APP&amp;SrcAuth=PartnerName_test&amp;KeyRecord=1040-446&amp;PointOfEntry=Impact&amp;DestApp=JCR&amp;UsrCustomerID=xxxxxx</a>

The URL contains values that identify you and the application that uses the URL:

- You may replace the SrcApp value with the name of the application into which the URL is placed. This information is useful for tracking purposes. However, this information is not required, and the service will work if you leave the value as PARTNER\_APP.
- The SrcAuth value (PartnerName in the example above) will automatically be replaced by a term that identifies you as the user of the service. You need not edit or change this value.

## How to Display a Link to Journal Citation Reports

The text that should appear on the user interface depends on the link type. The text should be hyperlinked, redirecting the user to the appropriate page in *Journal Citation Reports*. Note that *Journal Citation Reports* is a registered trademark. The registered trademark symbol must be placed after the mark as shown below.

LINK TYPE	TEXT TO DISPLAY
Impact Factor trend graph	View Impact Factor trend graph in Journal Citation Reports®

## REQUEST/RESPONSE API

The service employs an application program interface (API) to process the request and to return the specified data. The request API specifies the data you want to obtain and the article(s) or journals for which you want matching data. The response API returns the requested data.

To submit the request, you must make an HTTPS post request to **<https://ws.isiknowledge.com/cps/xrpc>**. The specific syntax of the Request/Response APIs and descriptions of XML elements are provided in the appendices.

Follow these guidelines in determining whether to make multiple requests:

- A single request API may specify multiple articles (up to 50). For more information, refer to the description of the `cited_id` root map element (page 11).
- You must make separate requests for *Web of Science* and *JCR* data.
- If you want the same data elements for multiple articles, you may submit a single request. For example, if you want both DOIs and Times Cited counts for 25 articles, only one request is needed.
- You must make separate requests if you want different data for different articles. For example, if you want to obtain DOIs for some articles and Times Cited counts for other articles, you must submit two separate requests.

## REQUEST API FOR WEB OF SCIENCE DATA

```
<?xml version="1.0" encoding="UTF-8" ?>
<request xmlns="http://www.isinet.com/xrpc41"
src="app.id=PartnerApp,env.id=PartnerAppEnv,partner.email=EmailAddress"      >
  <fn name="LinksAMR.retrieve">
    <list>
<!-- WHO'S REQUESTING -->
      <map>
        <val name="username">username</val>
        <val name="password">test</val>
      </map>
<!-- WHAT'S REQUESTED -->
      <map>
        <list name="WOS">
          <val>timesCited</val>
          <val>ut</val>
          <val>doi</val>
          <val>sourceURL</val>
          <val>citingArticlesURL</val>
          <val>relatedRecordsURL</val>
        </list>
      </map> <!--end "return_data" -->
<!-- LOOKUP DATA -->
      <map>
<!-- QUERY "cite_id" -->
        <map name="cite_id">
          <val name="atitle">article title string</val>
          <val name="stitle">full journal title</val>
          <val name="issn">1234-5678</val>
          <val name="vol">12</val>
          <val name="issue">12</val>
          <val name="year">2008</val>
          <val name="doi">doi_string</val>
          <val name="ut">isi_ut_num</val>
          <val name="spage">1234</val>
        </map>
<!-- authors list can be used to specify multiple authors -->
        <list name="authors">
          <val>First, AU</val>
          <val>Second, AU</val>
          <val>Third, AU</val>
        </list>
      </map>
    </list>
  </fn>
</request>
```

```

        </map> <!-- end of cite_id-->
<!-- QUERY "cite_id"
    <map name="cite_id">
        ...
    </map>
-->
    </map> <!-- end of citations -->
</list>
</fn>
</request>

```

## DESCRIPTION OF XML ELEMENTS

```

<request xmlns="http://www.isinet.com/xrpc41"
src="app.id=PartnerApp,env.id=PartnerAppEnv,partner.email=EmailAddress" >

```

This element is the root node for the request. The XML namespace is defined. The *src* attribute specifies information about the partner and the system used to generate the request.

The *src* attribute is not required. However, this information will enable us to assist you with any troubleshooting.

```

<fn name="LinksAMR.retrieve">

```

This element specifies the service function call. It supports an attribute named *name*. The value of the attribute is the name of the API call. Currently, this is restricted to "LinksAMR.retrieve", which specifies the retrieve API of the LinksAMR service that is used to satisfy the request.

LinksAMR.retrieve request consists of three mandatory request elements implemented as "map" subsections.

### Map Subsection 1

The first map subsection specifies **WHO** makes the request and is used to authenticate the request. There are two variations:

1. Username/password. If you received a user name and password from Thomson Reuters, use them.

```

<map>
<val name="username">username</val>
<val name="password">test</val>
</map>

```

2. IP address. If your institution subscribes to ISI Web of Knowledge, authentication will happen automatically. By inserting an empty <map> element in this map subsection, you instruct the service to authenticate your request by IP address.

```

<map>
</map>

```

The IP will be obtained from the HTTPS request.

## Map Subsection 2

The second map subsection specifies **WHAT** is requested (so called "return\_data" map). It contains one named list comprising the data elements to be included in the response. (The specific elements that you retrieve are determined by the terms of your service agreement. See *Entitlement Errors*, page 22.)

```
<list name="WOS">
```

The list name identifies the product code for the *ISI Web of Knowledge* collection to be searched for matching citations. For requests for *Web of Science* data, the value should be WOS.

```
<val>timesCited</val>
```

The *timesCited* value element specifies that Times Cited counts for matched citations will be returned in the response. Available only for "name=WOS".

```
<val>ut</val>
```

Specifies that the UT identifiers for matched citations will be returned in the response. Available only for "name=WOS".

```
<val>doi</val>
```

Specifies that the DOI identifiers for matched citations will be returned in the response. Available only for "name=WOS".

```
<val>sourceURL</val>
```

Specifies that URLs to bibliographic data for matched citations will be returned in the response. URLs will target the *ISI Web of Knowledge* collection specified in the list name. Available only for "name=WOS".

```
<val>citingArticlesURL</val>
```

Specifies that URLs to the Citing Articles Summary page for matched citations will be returned in the response. Available only for "name=WOS".

```
<val>relatedRecordsURL</val>
```

Specifies that URLs to the WoK Related Records Summary page for matched citations will be returned in the response. Available only for "name=WOS".

## Map Subsection 3

The third map subsection specifies **LOOKUP DATA**, or citations. In this section, you specify the articles for which you are requesting data. The table on page 4 lists the data elements you may use to specify citations.

```
<map name="cite_id">
```

The root node for an individual citation (query). Use the "cite\_id" attribute to identify single articles. This value should be unique for each citation. You may use any combination of letters and numbers to uniquely identify an article. Example, cite1, cite2, cite3.

This attribute will be included in the response with the article matches.

You may specify up to 50 citations in one request. It is more efficient to include multiple citations per request than to make one request per citation.

```
<val name="atitle">article title string</val>
```

Title of the article

<val name="stitle">full journal title</val>

Full title of the journal or book series (do not use abbreviated titles). You may use upper, lower, or mixed case. The service is not case-sensitive. See the section, *About Journal Titles*, on page 5, for specific guidelines.

**Note:** Check the title for the following special characters: apostrophe ('), double quotation marks ("), and ampersand (&). If it contains any of these, the XML element must include an entity reference or CDATA construct so that these special characters are interpreted correctly. For example:

<val name="stitle"><![CDATA[MEDICAL & BIOLOGICAL ENGINEERING & COMPUTING]]></val>  
or

<val name="stitle">MEDICAL & BIOLOGICAL ENGINEERING & COMPUTING</val>

See page 5 for more guidelines on entering journal titles.

<val name="issn">1234-5678</val>

ISSN or eISSN. Be sure to include the hyphen. If the same journal has separate ISSNs for print and electronic, use the ISSN for the print publication.

<val name="isbn">0-8493-1621-9</val>

ISBN or eISBN. Be sure to include the hyphens.

<val name="vol">12</val>

Volume of the journal in which the article was published.

<val name="issue">12</val>

Issue of the journal in which the article was published.

<val name="year">2008</val>

Cover date year.

<val name="spage">1234</val>

Starting page of the article.

<list name="authors">

List type element containing one or more author name values.

<val>First, AU</val>

One author name. Enter a surname, followed by a comma and one or more initials not separated by periods.

<val name="ut">isi\_ut\_num</val>

Thomson Reuters unique identifier for the article.

<val name="doi">doi\_string</val>

Article DOI

<val name="an">122001</val>

Article number.

<val name="pmid">pmid\_string</val>

Unique identification number assigned to records in MEDLINE. PMID stands for PubMed ID.

## RESPONSE API FOR WEB OF SCIENCE DATA

```
<?xml version="1.0" encoding="UTF-8" ?>
<response xmlns="http://www.isinet.com/xrpc41"
src="app.id=PartnerApp,env.id=PartnerAppEnv,partner.email=EmailAddress">
<fn name="LinksAMR.retrieve" rc="OK">
  <map>
<!-- RESPONSE for QUERY "cite_id" -->
  <map name="cite_id">
    <map name="WOS">
      <val name="timesCited">ts_val</val>
      <val name="ut">123456789</val>
      <val name="doi">10.224/xxxxx.xx.xx.xxx</val>
      <val name="sourceURL">URL_to_record</val>
      <val name="citingArticlesURL">URL_to_citing_articles</val>
      <val name="relatedRecordsURL">URL_to_related_records</val>
    </map>
  </map>
<!-- RESPONSE for QUERY "cite_id2"
  <map name="cite_id2">
    <map name="WOS">
      ...
    </map>
  </map>
-->
  </map>
</fn>
</response>
```

### DESCRIPTION OF XML ELEMENTS

```
<response xmlns="http://www.isinet.com/xrpc41"
src="app.id=LinksAMR,app.version=1.0.0,env.id=QAprimary" >
```

Root node for the response XML. The src attribute specifies information about the service instance used to satisfy the request.

```
<fn name="LinksAMR.retrieve" rc="OK">
```

Specifies the name of the LinksAMR API called. Supports a single attribute named *rc* that provides a return code. A value of "OK" indicates successful completion of the request.

```
<map>
```

All returned data are encapsulated in this map.

<map name="cite\_id">

One per citation included in the request. The *name* attribute identifies the article. Note that the order of citations in the response may not match the order of citations in the request.

<map name="WOS">

Identifies *Web of Science* as the *ISI Web of Knowledge* collection from which the data elements were retrieved.

<val name="timesCited">ts\_val</val>

Times Cited count for the article.

<val name="ut">123456789</val>

Thomson Reuters unique identifier for the article.

<val name="doi">10.224/xxxxx.xx.xx.xxx</val>

Article DOI

<val name="pmid">11073138</val>

PubMed ID

<val name="sourceURL">URL\_to\_record</val>

Full URL to the matched source item in the ISI Web of Knowledge collection specified in the request.

<val name="citingArticlesURL">URL\_to\_citing\_articles</val>

Full URL to the Citing Article summary page for the matched article.

<val name="relatedRecordsURL">URL\_to\_related\_records</val>

Full URL to the Related Records summary page for the matched article.



## REQUEST API FOR JCR DATA

```
<?xml version="1.0" encoding="UTF-8" ?>
<request xmlns="http://www.isinet.com/xrpc41"
src="app.id=PartnerApp,env.id=PartnerAppEnv,partner.email=EmailAddress"
  <fn name="LinksAMR.retrieve">
    <list>
<!-- WHO'S REQUESTING -->
      <map>
        <val name="username">username</val>
        <val name="password">test</val>
      </map>
<!-- WHAT'S REQUESTED -->
      <map>
        <list name="JCR">
          <val>impactGraphURL</val>
        </list>
      </map> <!--end "return_data" -->
<!-- LOOKUP DATA -->
      <map>
<!-- QUERY "cite_id" -->
        <map name="cite_id">
          <val name="title">full journal title</val>
          <val name="issn">1234-5678</val>
        </map> <!-- end of cite_id-->
<-- QUERY "cite_id2" -->
        <map name="cite_id2">
          ...
        </map>
      -->
      </map> <!-- end of citations -->
    </list>
  </fn>
</request>
```

## DESCRIPTION OF XML ELEMENTS

```
<request xmlns="http://www.isinet.com/xrpc41"
src="app.id=PartnerApp,env.id=PartnerAppEnv,partner.email=EmailAddress" >
```

This element is the root node for the request. The XML namespace is defined. The *src* attribute specifies information about the partner and the system used to generate the request.

```
<fn name="LinksAMR.retrieve">
```

This element specifies the service function call. It supports an attribute named *name*. The value of the attribute is the name of the API call. Currently, this is restricted to "LinksAMR.retrieve", which specifies the retrieve API of the LinksAMR service is used to satisfy the request. It also supports an attribute named *src* that identifies the caller of the service.

LinksAMR.retrieve request consists of three mandatory request elements implemented as "map" subsections.

### Map Subsection 1

The first map subsection specifies **WHO** makes the request. It is used to authenticate the request. Two variations are possible:

1. Username/password. If you received a user name and password from Thomson Reuters, use them.

```
<map>
<val name="username">username</val>
<val name="password">test</val>
</map>
```

2. IP address. If your institution subscribes to ISI Web of Knowledge, authentication will happen automatically. By inserting an empty <map> element in this map subsection, you instruct the service to authenticate your request by IP address.

```
<map>
</map>
```

The IP will be obtained from the HTTP request.

### Map Subsection 2

The second map subsection—the "return-data" map—specifies **WHAT** you are requesting. This section groups the data elements to be included in the response. It contains one named list.

```
<list name="JCR">
```

The list name identifies the product code for the *ISI Web of Knowledge* collection to be searched for matching citations. For requests for *Journal Citation Reports* data, the value should be JCR.

```
<val>ImpactGraphURL</val>
```

Specifies that URLs to the CR Impact Graph page for matched citations will be returned in the response. Available only for "name=JCR".

### Map Subsection 3

The third map subsection—the "cite" map—specifies **LOOKUP DATA**. In this section, you specify the journals for which you are requesting data. The table on page 4 lists the data elements you may use to specify journals.

```
<map name="cite_id">
```

The root node for an individual journal (query). Use the "cite\_id" attribute to identify single journals. This value should be unique for each citation. You may use any combination of letters and numbers to uniquely identify a journal. Example, cite1, cite2, cite3.

This attribute will be included in the response with the journal matches.

You may specify up to 50 journals in one request. It is more efficient to include multiple journals per request than to make one request per journal.

```
<val name="title">full journal title</val>
```

Full title of the journal (i.e., not an abbreviated title). You may use upper, lower, or mixed case. The system is not case-sensitive.

**Note:** Check the title for the following special characters: apostrophe ('), double quotation marks ("), and ampersand (&). If it contains any of these, the XML element must include an entity reference or CDATA construct so that these special characters are interpreted correctly. For example:

```
<val name="title"><![CDATA[MEDICAL & BIOLOGICAL ENGINEERING & COMPUTING]]></val>
```

or

```
<val name="title">MEDICAL &amp; BIOLOGICAL ENGINEERING &amp; COMPUTING</val>
```

See page 5 for more guidelines on entering journal titles.

```
<val name="issn">1234-5678</val>
```

ISSN. Be sure to include the hyphen.

## RESPONSE API FOR JCR DATA

```
<?xml version="1.0" encoding="UTF-8" ?>
<response xmlns="http://www.isinet.com/xrpc41"
src="app.id=LinksAMR,app.version=1.0.0,env.id=QAprimary" >
  <fn name="LinksAMR.retrieve" rc="OK">
    <map>
<!-- RESPONSE for QUERY "cite_id" -->
      <map name="cite_id">
        <map name="JCR">
          <val name="impactGraphURL">URL_to_JCR_impact_graph</val>
        </map>
      </map>
<!-- RESPONSE for QUERY "cite_id2" -->
      <map name="cite_id2">
        <map name="JCR">
          ...
        </map>
      </map>
    -->
  </map>
</fn>
</response>
```

### DESCRIPTION OF XML ELEMENTS

```
<response xmlns="http://www.isinet.com/xrpc41"
src="app.id=LinksAMR,app.version=1.0.0,env.id=QAprimary" >
```

Root node for the response XML. The *src* attribute specifies information about the service instance used to satisfy the request.

```
<fn name="LinksAMR.retrieve" rc="OK">
```

Specifies the name of the LinksAMR API called. Supports a single attribute named *rc* that provides a return code. An value of "OK" indicates successful completion of the request.

```
<map>
```

All returned data are encapsulated in this map.

```
<map name="cite_id">
```

One per journal included in the request. The *name* attribute identifies the citation.

```
<map name="JCR">
```

Identifies *JCR* as the *ISI Web of Knowledge* collection from which the data elements were retrieved.

<val name="ImpactGraphURL">URL\_to\_Journal\_Impact\_Factor\_trend\_graph</val>

Specifies that URLs to the JCR Impact Factor Graph page for matched citations will be returned in the response.  
Available only for "name=JCR".

## APPENDIX 1 ERROR MESSAGES

### NO RESULT FOUND

If the service cannot find a match for the article you specify, you will receive the following message: **No Result Found**. Technically, this is not an error message.

Here is an example of a response to a request for which no matching data were found:

```
<?xml version="1.0" encoding="UTF-8" ?>
<response xmlns="http://www.isinet.com/xrpc41" src="app.id=API Demo">
  <fn name="LinksAMR.retrieve" rc="OK">
    <map>
      <map name="cite_1">
        <map name="WOS">
          <val name="message">No Result Found</val>
        </map>
      </map>
    </map>
  </fn>
</response>
```

### RESPONSE ERRORS

Example:

```
<?xml version="1.0" encoding="UTF-8" ?>
<response xmlns="http://edclinuxqa9.isinet.com:17010/esti/xrpc" src="app.id=API Demo">
  <fn name="LinksAMR.bogusname" rc="Server.methodNotFound">
    <error code="Server.methodNotFound">LinksAMR.methodname</error>
  </fn>
</response>
```

The error codes and strings for response level errors are:

ERROR CODE(S)	ERROR STRING	MEANING
Server.methodNotFound	LinksAMR.methodname	Specific service requested is not valid or unrecognized
Server.invalidRequest	Could not parse request...	Request contains invalid XML. See error string for details.
Server.internalError	Internal Server Error	Service encountered an internal error.

## AUTHENTICATION ERRORS

Example:

```
<?xml version="1.0" encoding="UTF-8" ?>
<response xmlns="http://edclinuxqa9.isinet.com:17010/esti/xrpc" src="app.id=API Demo">
<fn name="LinksAMR.retrieve" rc="Server.authentication">
  <error code="Server.authentication">No matches returned for Username</error>
</fn>
</response>
```

The error codes and strings for response level errors are:

ERROR CODE(S)	ERROR STRING	MEANING
Server.authentication	No matches returned for Username	Username and/or password provided in request not recognized.
Server.authentication	No matches returned for IP Address	IP Address provided in request not recognized.
Server.authentication	Invalid Username	Password in request is not valid for username provided.
Server.authentication	No Portal entitlement found for IP Address	Username/password or IP not entitled for portal

## ENTITLEMENT ERRORS

Example:

```
<?xml version="1.0" encoding="UTF-8" ?>
<response xmlns="http://edclinuxqa9.isinet.com:17010/esti/xrpc" src="app.id=API Demo">
  <fn name="LinksAMR.retrieve" rc="Server.authorization">
    <error code="Server.authorization">com.isinet.esti.AuthorizationException:
      Server.authorization - Not entitled for 'citingArticlesURL(CitingArtLinkAllowed)'
      in product 'WOS'.</error>
  </fn>
</response>
```

The error codes and strings for entitlement level errors are:

ERROR CODE(S)	ERROR STRING	MEANING
Server.authorization	(no prefix) Not authorized for product: AMR	Your subscription does not entitle you to retrieve a requested data element or product. Consult your terms of service to verify which data elements you may request.
Server.authorization	(prefix) Not entitled for product 'WOS'	You have requested data from <i>Web of Science</i> but your service agreement does not authorize you to receive data from <i>Web of Science</i> .
Server.authorization	(prefix) Not entitled for product 'JCR'	You have requested data from <i>Journal Citation Reports</i> but your service agreement does not authorize you to receive data from <i>Journal Citation Reports</i> .
Server.authorization	(prefix) Illegal service 'NoSuchService' requested.	The correct name of the service is LinksAMR.retrieve. Check the attribute value in the <fn> element at the beginning of your request. It should match that shown in the sample request on page 9 or page 15.
Server.authorization	(prefix) Not entitled for 'doi(DOIAllowed), citingArticlesURL(CitingArtLinkAllowed), relatedRecordsURL(RelRecLinkAllowed)' in product 'WOS'	You are not entitled to retrieve the specified data elements. Check the terms of your service agreement to verify that you are entitled to receive the data you requested.
Server.authorization	Query 'cite_1' contains one or more non-AMRLite request fields. AMRLite request fields are 'ut, pmid, doi'	Your subscription entitles you to specify articles in a request by identifiers only. The service cannot process a request that includes only bibliographic data to identify citations.

**Note:** It is not an error if a requested citation falls outside of your product subscription. For example, no error is returned if you provide a citation to an article published in 1990 in the request, but your product subscription is limited to 2000-present. In this case, you will receive an empty response.



## CITATION ERRORS

Example:

```
<?xml version="1.0" encoding="UTF-8" ?>
<response xmlns="http://edclinuxqa9.isinet.com:17010/esti/xrpc" src="app.id=API Demo">
  <fn name="LinksAMR.retrieve" rc="Server.invalidInput">
    <error code="Server.invalidInput">Query 'xxxx' is empty</error>
  </fn>
</response>
```

The error codes and strings for citation level errors are:

ERROR CODE(S)	ERROR STRING	MEANING
Server.invalidInput	Query 'xxxx' is empty	An empty <map> element was encountered in the LOOKUP DATA section of the request.
Server.invalidInput	Citation entry missing name.	A <map> element is missing the 'name' attribute in the LOOKUP DATA section of the request.
Server.invalidInput	Number of cites specified in request exceeds max allowed 50.	The number of items specified in a single request cannot exceed 50. If you want data for more than 50 articles, you must submit multiple requests (see page 8.

## JCR ERROR

Example:

```
<?xml version="1.0" encoding="UTF-8" ?>
<map>
  <map name="cite_1">
    <map name="JCR">
      <val name="error">Server.JournalCitation - JCR database error occurred.</val>
    </map>
  </map>
```

The error code and string for the JCR error are:

ERROR CODE(S)	ERROR STRING	MEANING
Server.JournalCitation	JCR database error occurred.	A server-side JCR database error occurred. Contact the Global Customer Support Center for assistance (page 2).

## APPENDIX 2 BANDWIDTH THROTTLING

Links AMR limits the number of citations processed per period of time. A citation refers to a single query. A request API may contain up to 50 citations. This control is necessary to ensure consistent and reliable performance.

Throttling time periods may include per-second, per-minute, and per-hour dependent on account setting. Information on the throttling time period set for your particular account (as determined by Thomson Reuters) will be supplied as part of the confirmation letter sent upon entitlement of your Article Match Retrieve access.

All throttling messages begin with the text **Request denied by Throttle server**. Each message will also provide a reason for the denial.

REASON	EXPLANATION	YOUR ACTION
Throttle server is not available.	The service is temporarily unavailable.	Wait a few minutes and then resubmit your request.
Internal Error	Web services could not process your request.	Check the syntax of your request and then submit it again.
limit of <number>requests per period has been exceeded for throttle MR-CitePerMin	<p>The number of allowable citations submitted per time period is specified by the confirmation letter sent upon entitlement of this service. This message indicates that that limit has been reached.</p> <p>Note that in this message, the word <i>request</i> means individual citation query, not the API request for data.</p>	<p>Wait a minute and then resubmit the request.</p> <p>If you continually receive this error, please contact the Thomson Reuters Technical Support Desk at <a href="http://scientific.thomsonreuters.com/techsupport/">http://scientific.thomsonreuters.com/techsupport/</a> for a reassessment of your throttling values.</p>
limit of <number>requests per period has been exceeded for throttle MR-CitePerSec	<p>The number of allowable citations submitted per time period is specified by the confirmation letter sent upon entitlement of this service. This message indicates that that limit has been reached.</p> <p>Note that in this message, the word <i>request</i> means individual citation query, not the API request for data.</p>	<p>Wait a second and then resubmit the request.</p> <p>If you continually receive this error, please contact the Thomson Reuters Technical Support Desk at <a href="http://scientific.thomsonreuters.com/techsupport/">http://scientific.thomsonreuters.com/techsupport/</a> for a reassessment of your throttling values.</p>
limit of <number>requests per period has been exceeded for throttle MR-CitePerHour	<p>The number of allowable citations submitted per time period is specified by the confirmation letter sent upon entitlement of this service. This message indicates that that limit has been reached.</p> <p>Note that in this message, the word <i>request</i> means individual citation query, not the API request for data.</p>	<p>Wait an hour and then resubmit the request.</p> <p>If you continually receive this error, please contact the Thomson Reuters Technical Support Desk at <a href="http://scientific.thomsonreuters.com/techsupport/">http://scientific.thomsonreuters.com/techsupport/</a> for a reassessment of your throttling values.</p>