



Strengthening the Scholarly Record:

A Workshop on Crafting Metadata Records & DOIs with Crossref

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Crossref makes research outputs easy to find, cite, link, and assess.

We're a not-for-profit membership organization that exists to make scholarly communications better. We rally the community; tag and share metadata; run an open infrastructure; play with technology; and make tools and services—all to help put scholarly content in context.

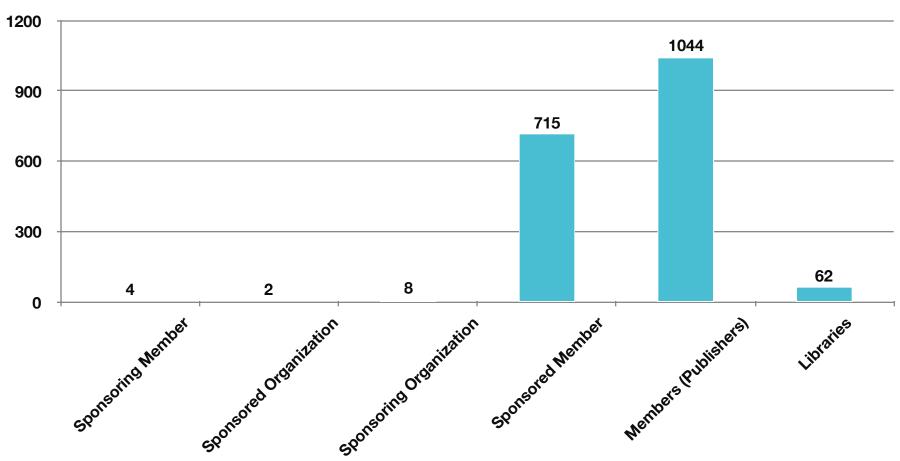
It's as simple—and as complicated—as that.



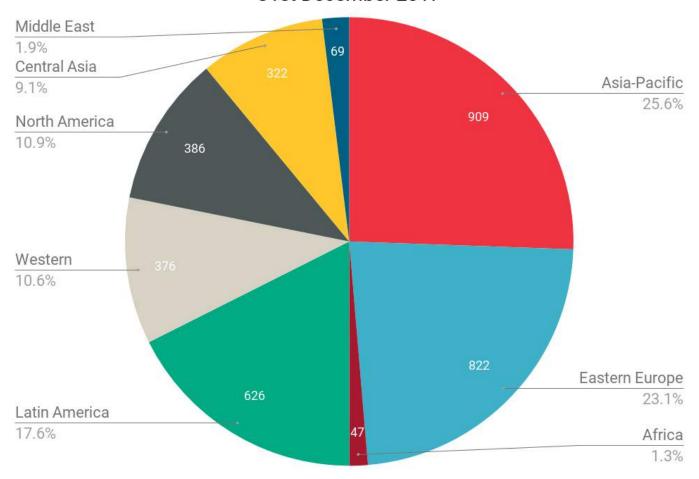
Why do publishers join Crossref?

- Content discoverability
- Show people where content is located including if/ when the content moves
- Drive more traffic to publications
- Link references
- Participate in other collaborative services

New Members 2017



Number of new Crossref members per region joining between 1st Jan 2016 - 31st December 2017



96,721,336

66,894,185

Records with full-text links

10,400

Member organizations

2,785,753
Records with funding information

2,049,205
Records with a Funder Registry ID

30,786,067
Records with licenses

1,454,441
Records with ORCID iDs

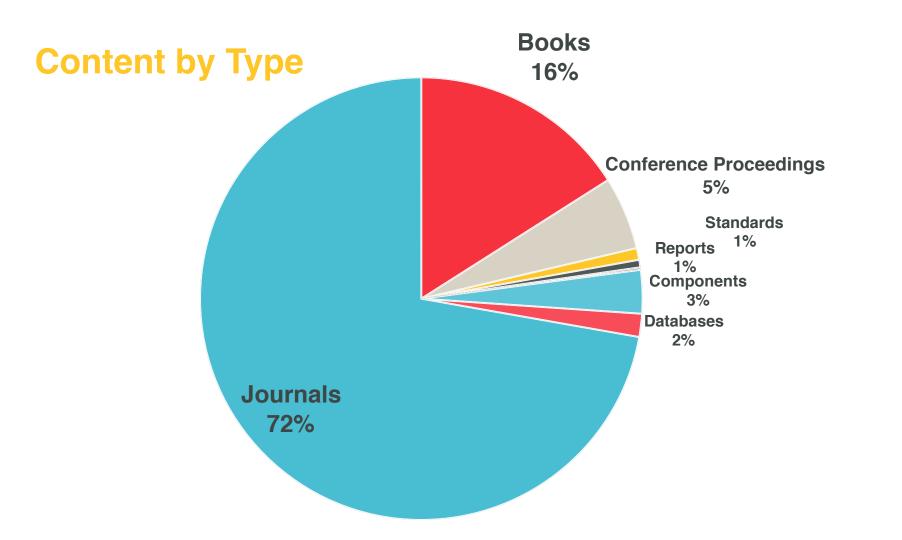
6,845,791

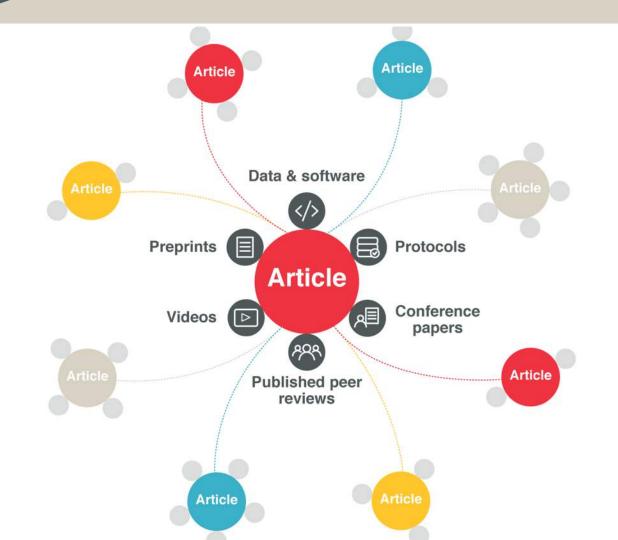
2,186

Registered retractions through Crossmark

81,675

Registered updates through Crossmark







Peer Review Reports Reference Distribution Policy

Soon

Pending Publication

Event Data

Publisher Participation Reports

Metadata Manager Deposit Tool

Also on the way

OrgIDs Grant IDs

Metadata for (almost) any occasion

- Literature discovery
- Research integrity tracking
- Reproducibility
- Reporting to funders and institutions
- Funder policy compliance
- &tc...

Metadata for research integrity

- Updates (corrections, retraction, update, expressions of concern, etc.): Crossmark
- Peer review history, type, assets
- Funding data (COI)
- ORCIDs (authors, reviewers, editors, etc.)
- Affiliation (authors, reviewers, editors, etc.)
- License data (full text, abstract, etc.)

Metadata for discoverability

- ORCID, Funder ID & Award No.
- Abstracts
- References
- Links to data & software
- Links to preprints
- Links to conference papers and posters
- Links to research resource IDs (identifiers for assays, materials, etc.)
- Links to post-publication events (reviews, comments & discussions, bookmarks, shares, recommendations, etc.) Event Data
- Access indicators (publication license for text & data mining, machine mining URLs)

Metadata for reproducibility

- Updates (corrections, retraction, update, expressions of concern, etc.)
- Funding data (COI) & ORCIDs (authors, reviewers, editors, etc.)
- License data (full text, abstract, etc.)
- Links to peer review assets
- Links to underlying data & software
- Links to protocols
- Links to versions
- Links to videos/audio and other supporting information
- Links to research resource IDs (identifiers for assays, materials, etc.)
- Links to clinical trial registry and trial number

Metadata for reporting and assessment

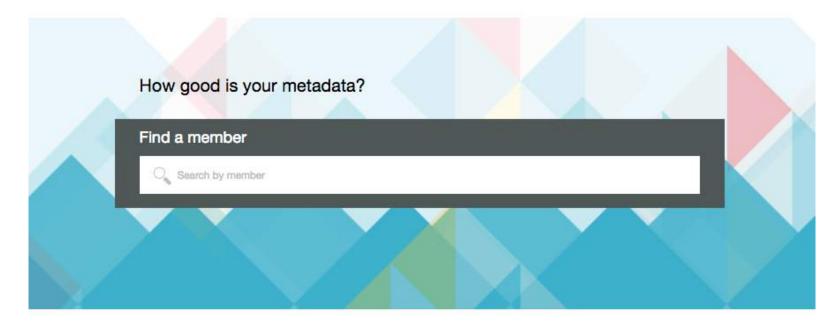
- ORCID, Funder ID, Grant ID & Award No.
- Abstracts
- References: Cited-by
- Peer review description & assets
- Links to data & software
- Links to preprints
- Links to conference papers and posters
- Links to research resource IDs (identifiers for assays, materials, etc.)
- Links to post-publication events (reviews, comments & discussions, bookmarks, shares, recommendations, references, media coverage)
- Access indicators (publication license for text & data mining, machine mining URLs)

Your metadata content reaches:

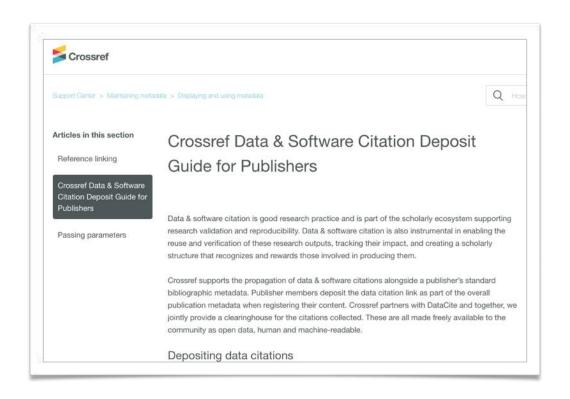
- Funders
- Institutions
- Archives & repositories
- Research councils
- Data centres
- Professional networks
- Patent offices
- Indexing services

- Publishing vendors
- Metrics providers
- Reference manager systems
- Lab & diagnostics suppliers
- Sharing platforms
- Data analytics systems
- Literature discovery services
- Educational tools
- PID providers, registration agencies









https://support.crossref.org

Thank you

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Strengthening the scholarly record: A Workshop on Crafting Metadata Records and DOIs with Crossref



Shayn Smulyan
Product Support Associate
support@crossref.org
@CrossrefSupport



Who registers content with Crossref?

About you

We have 10,013 members from 114 countries. Many types of organizations interact with Crossref. You could be a research institution, a publisher, a government agency, a research funder, or a start-up. In order to become a member, register content and deposit metadata you'll need to meet one criterion:

You want to share research outputs through metadata and persistent identifiers and/or you represent organizations who do.

If you can commit to creating and maintaining a metadata record for your published content, in the long-term, then Crossref membership is for you.

What can you register? Content Types.

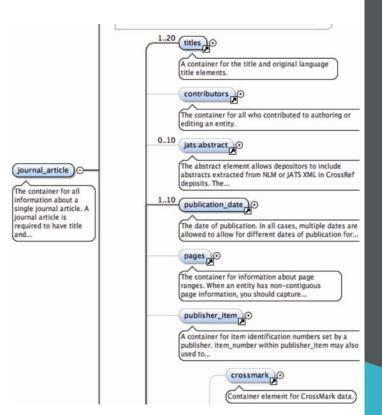
- Journals
- Books
- Conference Proceedings
- Dissertations
- Data Sets
- Reports
- Standards
- Preprints
- Peer Reviews

Status Page: Updated on Apr 29, 2018

MetaData Deposit	
Total Records in Database	96,481,720
Total Prefixes	10,649
Number of Journals	58,645
Number of Books	1,269,875
Number of Conference Proceedings	58,855
Number of Journal DOIs	71,852,542
Number of Book DOIs	13,454,498
Number of Conference DOIs	5,252,705
Number of Components	3,204,641
Number of Standards Titles	338,742
Number of Standards DOIs	255,247
Number of Databases	12,770
Number of Database DOIs	1,670,337

Content Registration Overview

- Construct DOIs
- Prepare XML metadata
- Submit metadata to Crossref
- Confirm Success



Then What?

- Outbound Reference Linking
- Reports
- Updating/Maintaining DOIs
 - URLs
 - adding/correcting/editing metadata
- Title Transfers

What you need before you begin

- A DOI assigned to your content item
 - DOI = Prefix / Suffix
 - We assign you the prefix, you create the suffix
 - Allowed characters: a-z, 0-9, and . _ ; () /
- A URL for that item's landing page which includes
 - Some means for users to access the full text content
 - The DOI displayed as a link: https://doi.org/{DOI}
 - A citation or basic bibliographic data displayed
- Metadata that describes the item you're registering

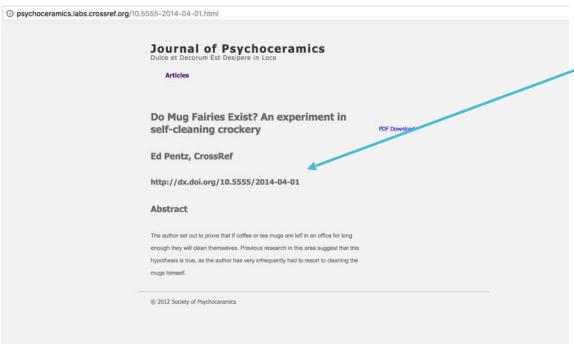
Demo: Content Registration

Pentz, Ed. Do Mug Fairies Exist? An experiment in self-cleaning crockery. (2014). Journal of Psychoceramics, 5(11).

10.5555/2014-04-01

http://psychoceramics.labs.crossref.org/ 10.5555-2014-04-01.html

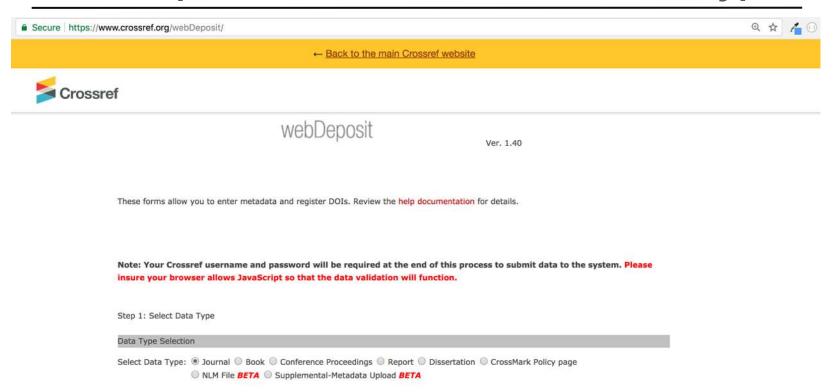
Do Mug Fairies Exist? Article Landing Page



Note, outdated DOI display format.

"dx" and "http"

Web Deposit Form - Select Content Type



Journal- and Issue-level Metadata

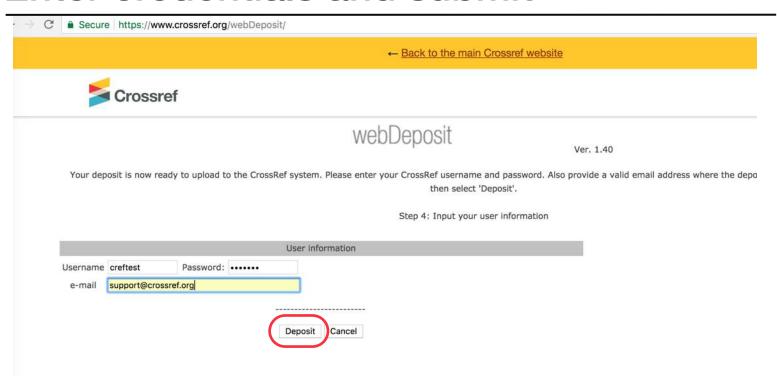
Step 2: Identify the Journal

nai information			
Title	Journal of Psych	oceramics	
Abbr.	JoP		
Journal DOI+			
Journal URL			
Print ISSN	02643561	Elect ISSN	Journal DOI and/or ISSN required
Volume	5 Issue 11		
Issue DOI			
Issue URL			
Type: print		ues (YYYY, MM, DD)	
	2014 Month: 0	04 Day: 01	
Type: online *Year		Day:	
* a minimum of	one publication	year is required	ds for title-level Journal deposit
ubmit Journal/Issue	DOI Add Articl	es	

Article Metadata

Title*		Do Mug Fairies Exist? An experiment in self-cleaning crocke						
Original Title (for translated wor	ks only)							
Contributors								
Person	Role	First Name		Last Name	ORCI	ORCID	Add Contributor	
Person	author	*	Ed	Pentz	https	s://orcid.org/0000	Add Contribute	
Organization (optional)	author	•					Add Organizati	
note: use numerical va * a minimum of one pub			Type: print *Year 20 Type: online *Year	Month: 04 Day: 01				
DOI*		10.5555/2014-04-01						
		http://psychoceramics.labs.crossref.org/10.5555-2014-04-				dd Similarity Check	as-crawled URL	
URL*			Last pa					
			Last pa	ge:				

Enter credentials and submit



Confirmation Message



SUCCESS

Your batch submission was successfully received.

webDeposit

Ver. 1.40

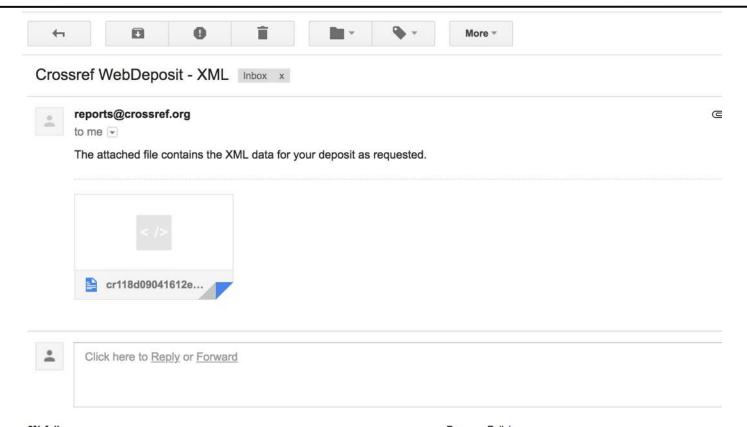
Your deposit has been submitted to the system. The log results will be sent to you in an email

Your XML file is named: cr118d09041612e53cfe4-2d7b.xml

To return to the beginning and start another deposit, please press 'Restart'.

Restart

First email - contains deposited XML



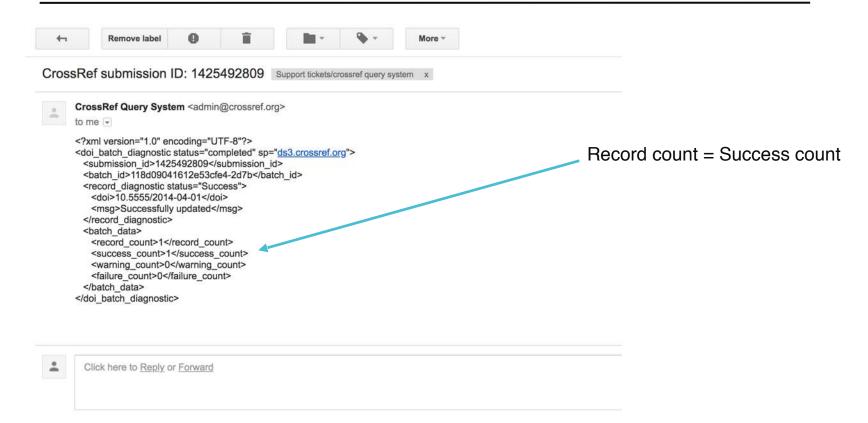
Deposited XML File

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cr118d09041612e53cfe4-2d7b.xml
~/Downloads/cr118d09041612e53cfe4-2d7b.xml .
                                                                           (no function selected) . . . . . .
    <doi batch version="4.4.0" xmlns="http://www.crossref.org/schema/4.4.0"</pre>
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
   xsi:schemaLocation="http://www.crossref.org/schema/4.4.0
    http://www.crossref.org/schema/deposit/crossref4.4.0.xsd">
    <head>
    <doi_batcn_id>118d09041612e53cfe4 2d7b</doi_batch_id>
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    <registrant>WEB-FORM</registrant>
    </head>
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    <iournal>
    <journal_metadata> <full_title>Journal of Psychoceramics</full_title>
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    cation_date media_type='print'>
    <month>04</month>
                         <day>01</day>
                                           <year>2014
   <iournal volume>
                        <volume>5</volume> </journal volume> <issue>11</issue>
   // issue><!-- ======== -> journal_article publication_type='full_text'>
    <titles>
                <title>Do Mug Fairies Exist? An experiment in self-cleaning crockery.</title>
    </titles>
               <contributors>
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   <given_name>Ed</given_name>
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    <year>2014</year> </publication_date> <doi_data>
                                                            <doi>10.5555/2014-04-01</doi>
    <resource>http://psychoceramics.labs.crossref.org/10.5555-2014-04-01.html</resource>
    </doi data> </iournal article>
   </iournal>
   </body>
17 - </doi batch>
        XML. Unicode (UTF-8). Windows (CRLF). Saved: 5/6/18, 5:18:06 PM 1 1,643 / 158 / 18 100%.
```

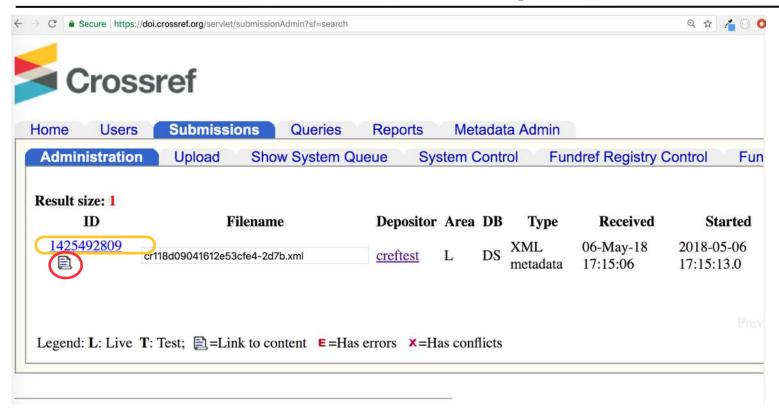
If you need to edit or correct any metadata, you can resubmit this XML file with changes.

Be sure to update the timestamp> element to a higher number.

Second email - Submission log



Submission on our admin system



Record on Metadata Search Interface



Once registered, the item appears in our APIs and Metadata Search Interface

Demo: Simple Text Query

Simple Text Query

https://doi.crossref.org/simpleTextQuery

- Query DOIs for a reference list to comply with our outbound reference linking display requirement
- Deposit references into a DOI's metadata record

Demo: Simple Text Query cont'd

Example Reference list

- 1. Carberry, J. (2012). Deconstructing Write-Back Caches. Journal of Psychoceramics, 9(11), 1–3.
- 2. Surname, E., 2013. Why clean metadata is important. Journal of CrossMark Testing, 1(1), p.78.
- 3. Patel, V, Testing dataset deposit with fundref. Test Database FundRef.
- 4. Carberry, Josiah. "Developing Thin Clients Using Amphibious Epistemologies." Journal of Psychoceramics
- 5, no. 11 (February 29, 2008): 1-3.
- 5. SirSurname, Emilio. "Why Very Very Clean Metadata Is Important." Journal of CrossMark Testing 11, no. 1 (2012): 78.
- 6. Frede, D. (2010). Test article 20101004. Journal of Test Deposits, 34(1).
- 7. Patel, Vaishali. "Test Article Title Doi." Journal of Test Deposits (2013).
- 8. Carberry, Josiah. "The Memory Bus Considered Harmful." Journal of Psychoceramics 9.11 (2012): 1–3.

Query Services Account



Crossref Query Services Account Request Form

Crossref provides various web interfaces for key query services. Registered Crossref Members, Libraries and Affiliates may use the web interfaces with their previously supplied system account credentials. The Crossref Query Services interfaces are:

- SimpleText Query
- * OpenURL
- * HTTP

If you are not a Crossref member with account credentials, you may register for an account here. This account registration service is available at no charge to certain entities (please see the detailed terms and conditions below).

The purpose of requiring an account for using Crossref Query Services is simply to monitor usage to balance system demand and to identify problems.

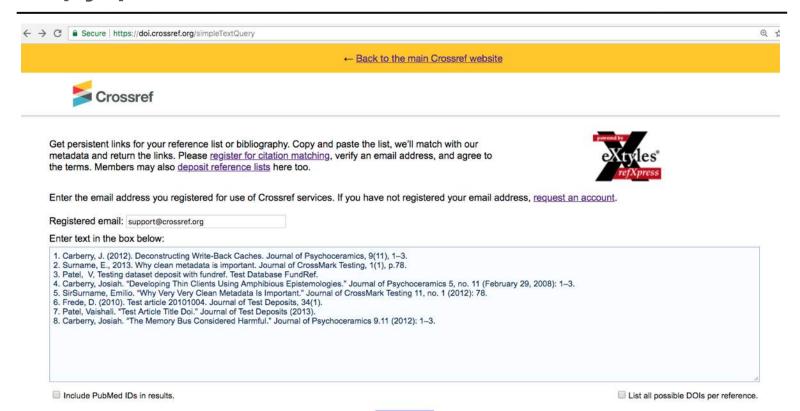
If you have any questions please email support@crossref.org

To create an account, you will need to provide your email address. You will receive an email for verification and to activate your account.

Email:		
Organization:		
applicable to the Form services, the CrossRef we Free Services'). 1. OWNERSHIF items of bibliog	t (the "Agreement") contains the use of the Open URL, Linker offered by CrossRef to the pueb site (www.crossref.org) (co). P. CrossRef asserts no claims praphic metadata and associate Terms and Conditions	d Data and Guest Query blic at no charge through illectively, the 'CrossRef of ownership to Individual
	I'm not a robot	reCAPTCHA Privacy - Terms

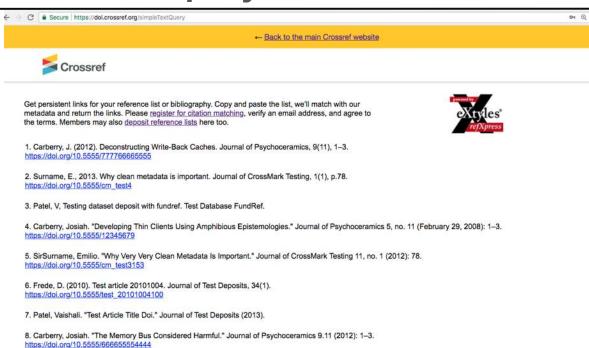
Submit

Copy-paste references and Submit STQ form



Submit

References display with DOIs beneath

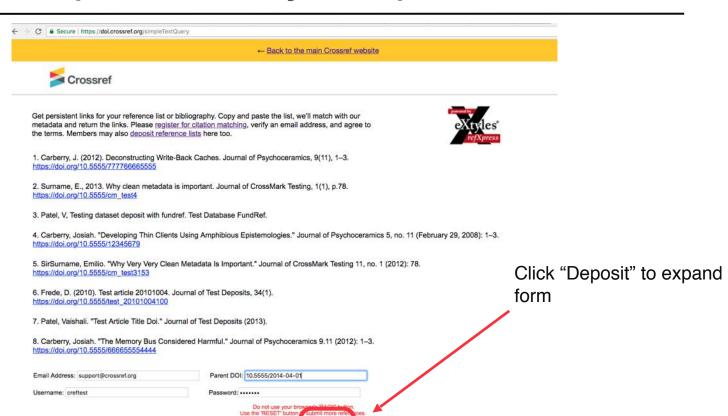


Do not use your browser's 'BACK' button.
Use the 'RESET' button to submit more references.

Reset Deposit

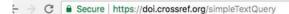
This service allows up to 5,000 references per month. There are other services and interfaces for highvolume citation queries.

Using Simple Text Query to deposit References



Deposit

Reference Deposit Confirmation



← Back to the main Crossref website



Get persistent links for your reference list or bibliography. Copy and paste the list, we'll match with our metadata and return the links. Please <u>register for citation matching</u>, verify an email address, and agree to the terms. Members may also <u>deposit reference lists</u> here too.



Do not use your browser's 'BACK' button.
Use the 'RESET' button to submit more references.

Reset

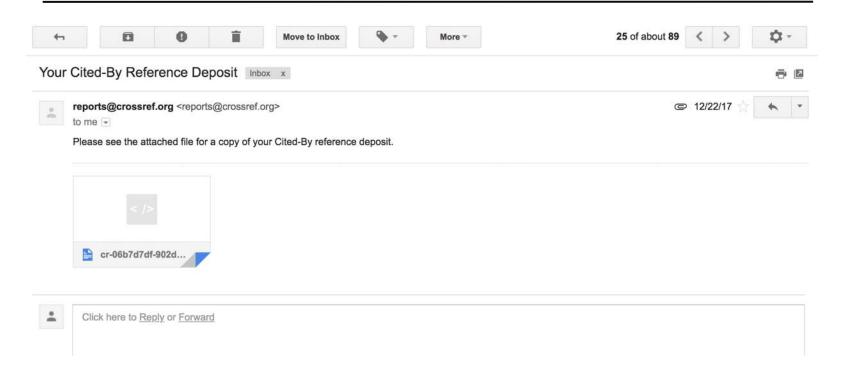
This service allows up to 5,000 references per month. There are other services and interfaces for <u>high-volume citation queries</u>.

Please contact us if you have any questions.

Tips:



Email Confirmation and XML

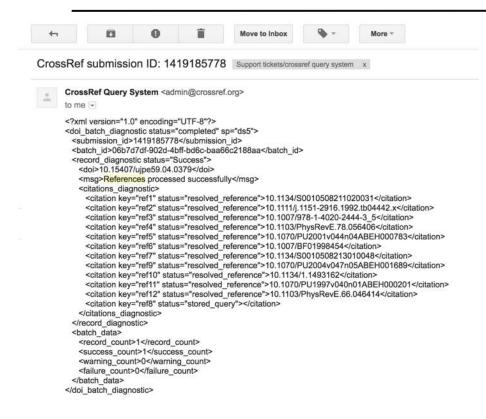


XML Reference-only Deposit

```
cr-b759e061-7e7c-4526-bd06-f0d05de4c711.xml
~/Downloads/cr-b759e061-7e7c-4526-bd06-f0d05de4c711.xml ...
   <?xml version="1.0" encoding="UTF-8"?>
    <doi batch version="4.3.0" xmlns="http://www.crossref.org/doi_resources_schema/4.3.0"</pre>
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:schemaLocation="http://www.crossref.org/doi_resources_schema/4.3.0
   http://www.crossref.org/schema/deposit/doi_resources4.3.0.xsd">
    <doi batch id>b759e061-7e7c-4526-bd06-f0d05de4c711/doi batch id>
5 - <depositor>
    <name>creftest</name>
    <email_address>support@crossref.org</email_address>
8 = </depositor>
9 - </head>
18 * <body>
11 - <doi citations>
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    Psychoceramics</journal title><author>Carberry</author><volume>9</volume><issue>11</issue>
    <first_page>1</first_page><cYear>2012</cYear><doi>10.5555/777766665555</doi><article_title
    >Deconstructing Write-Back Caches</article_title><unstructured_citation>1. Carberry, J.
    (2012). Deconstructing Write-Back Caches. Journal of Psychoceramics, 9(11),
    1-3.</unstructured_citation></citation><citation key="ref1"><journal_title>Journal of
    Testing</journal_title><author>Surname</author><volume>1</volume><issue>1</issue><
    first page>78</first page><cYear>2013</cYear><doi>10.5555/cm test4</doi><article title>Why
    clean metadata is important.</article title><unstructured citation>2. Surname, E., 2013.
    Why clean metadata is important. Journal of CrossMark Testing, 1(1),
    p.78.</unstructured_citation></citation><citation key="ref2"><unstructured_citation>2.
    Patel, V. Testing dataset deposit with fundref. Test Database
    FundRef.</unstructured_citation></citation><citation key="ref3"><journal_title>Journal of
    Psychoceramics</journal_title><author>Carberry</author><volume>5</volume><issue>no.
    11</issue><first page>1</first page>cYear>2008</cYear><doi>10.5555/12345679</doi>
    article_title>Developing Thin Clients Using Amphibious
    Epistemologies.</article title><unstructured citation>4. Carberry, Josiah.
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    Psychoceramics 5, no. 11 (February 29, 2008):
    1-3.</unstructured citation></citation><citation key="ref4"><journal title>Journal of
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    article_title>Emilio. " Why Very Very Clean Metadata Is
    Important.</article_title><unstructured_citation>5. SirSurname, Emilio. &quot;Why Very
        VM - Thirteen UTE 81 - Windows (CDI E) - A - Square 5/7/18 3/5/27 DM - C4 3/583 / 423 / 47 3/005 -
```

We call this a "resource-only deposit". Adds ancillary metadata to an already-registered DOI.

Submission Log Email for Reference Deposit



- Resolved Reference = Matched as citing this DOI
- Stored Query = No match, we'll query again periodically

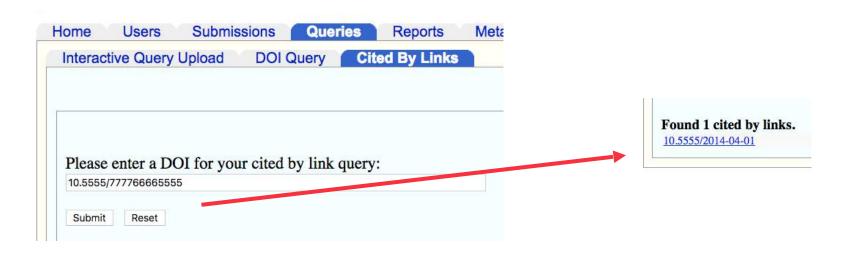
Reference Distribution and Cited-By

Once you have references deposited you can:

- Query for the DOIs that match as citing your content*
- Opt to have your references distributed as open, limited, or closed

*You need to sign-up for our Cited-by service first, but there's no fee involved

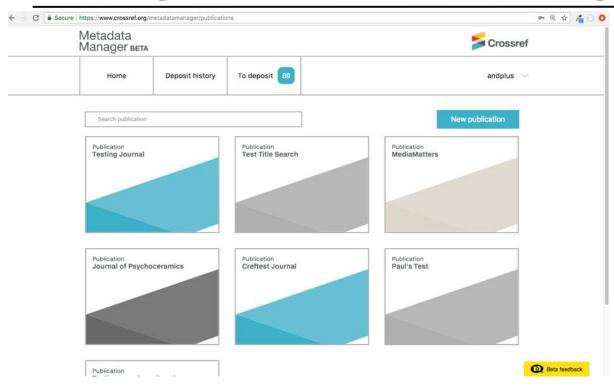
Cited-by match



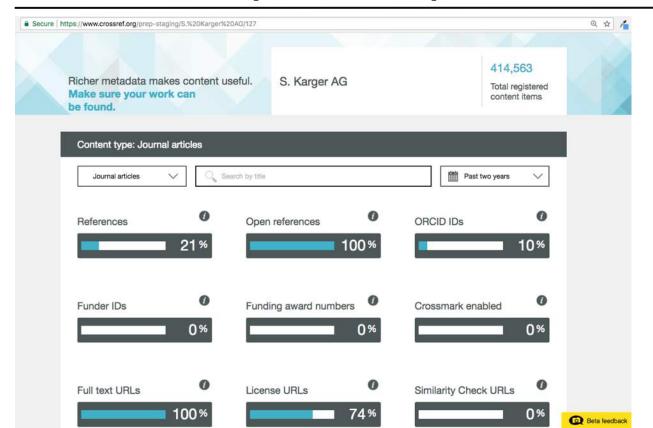
Cited-by Count in metadata record for 10.5555/777766665555

```
<crm-item name="citedby-count" type="number">1</crm-item>
```

Coming soon, Metadata Manager...



...and Participation Reports



Thank you!

@CrossrefSupport
support@crossref.org

