

PID implementations in NIMS researcher directory and data repository

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Persistent Identifiers Towards Open Science in Japan (and the Asia–Pacific Region)
December 12th, 2023



About NIMS (National Institute for Materials Science)

- <https://www.nims.go.jp> / <https://ror.org/026v1ze26>
- Located in Tsukuba, JAPAN
- The only research institute in Japan that specializes in materials science
- One of the three "Designated National Research and Development Institutes" (特定国立研究開発法人) in Japan
 - RIKEN, AIST and NIMS
- About 1,500 employees (370 permanent researchers and 70 permanent engineers)





About NIMS (from a point of view of PIDs)

- A board member of Japan Link Center (2012-)
- The only research institute in Japan that is a member of both ORCID and DataCite
 - ORCID direct member (2014-2021), ORCID Japan consortium member (2022-)
 - DataCite direct member (2021-)





PID implementations in NIMS

- Researcher directory SAMURAI
<https://samurai.nims.go.jp>
- Materials Data Repository (MDR)
<https://mdr.nims.go.jp>





Researcher directory SAMURAI



SAMURAI

NIMS Researchers Directory Service

- <https://samurai.nims.go.jp>
- Provides about 700 profile information of researchers and engineers and their publication lists (articles, books, presentations and patents)
- About 1 million page views in a year
- The first version was released in 2009
- Completely redesigned and implemented ORCID integration in 2017

HOME > Profile > TANABE, Kosuke

Search researchers

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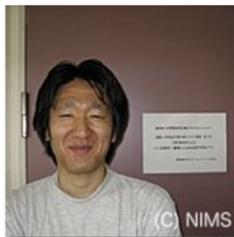
Publication list >

External references

 <https://orcid.org/0000-0002-9986-7223> >

 >

 >



TANABE, Kosuke (田邊 浩介)

Principal Engineer, Data Infrastructure Unit, Materials Data Platform, Research Network and Facility Services Division

 Email TANABE.Kosuke@nims.go.jp

 Address [Access]

 Web Site ▶ NIMS Digital Library
▶ GitHub

Profile

Word cloud (beta)

Connection (beta)

Research

 Keywords FRBR, Digital library, Next-L Enju

I'm engaged in several digital library projects.

External references

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RESEARCHERID >

 **researchmap** >

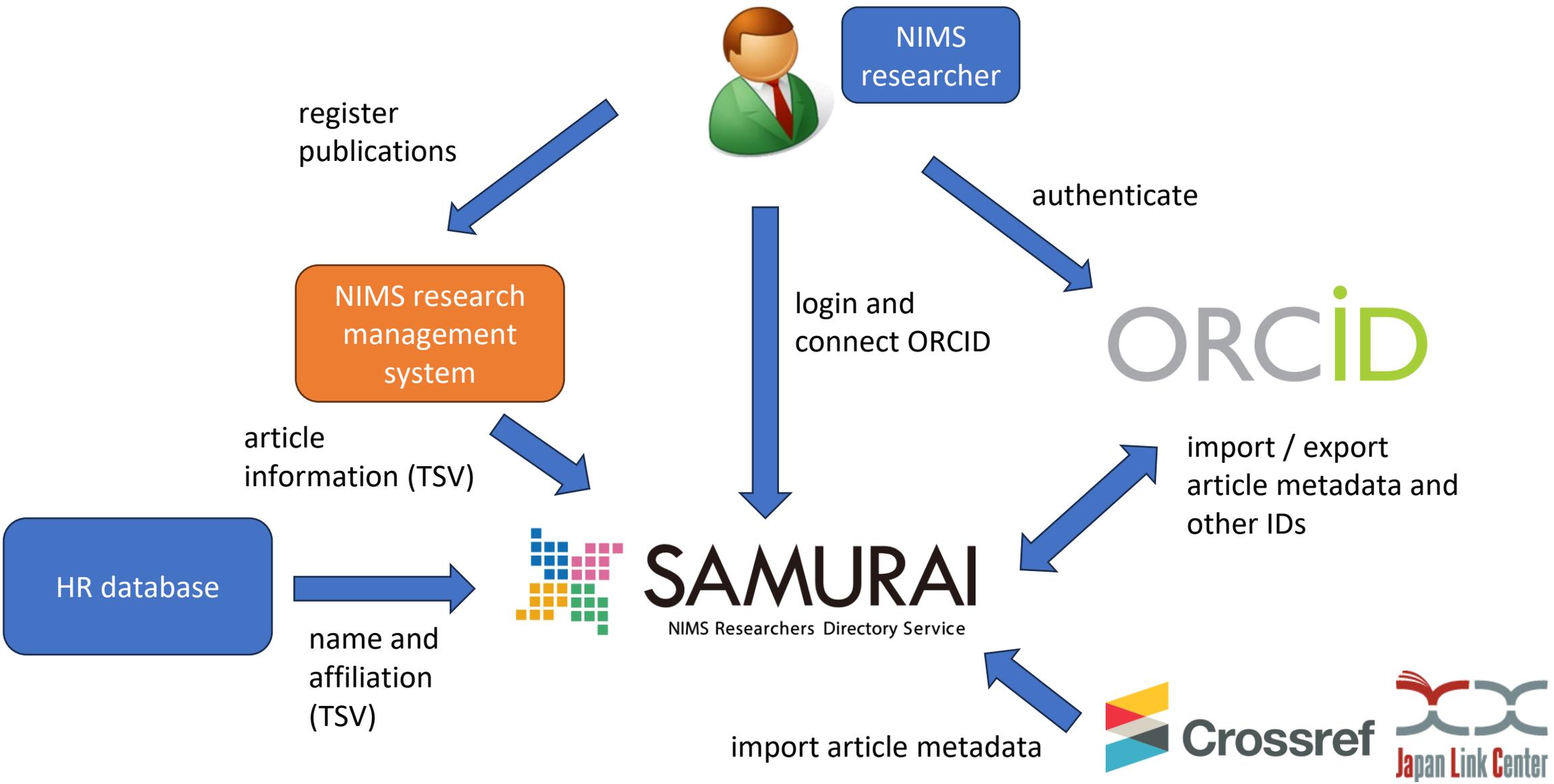
KAKEN >

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SAMURAI and ORCID

- NIMS researchers log in to SAMURAI using their E-mail account and authenticate their ORCID iD
- ORCID authentication is required to publish their profile on SAMURAI
 - 100% of permanent researchers and about 90% of permanent engineers added their ORCID iD to SAMURAI
- Researchers can export their publication list to ORCID at any time
- Researchers can import their publication list on ORCID when they arrive at NIMS



register publications

NIMS research management system

article information (TSV)

HR database

name and affiliation (TSV)



NIMS researcher

authenticate

ORCID

login and connect ORCID

import / export article metadata and other IDs

SAMURAI
NIMS Researchers Directory Service

import article metadata



[HOME](#) > [Login](#)

Login

Username

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NIMS Digital Library

Log-in account is the same as the NIMS email account.

NIMS researchers log in to SAMURAI using their E-mail account and authenticate their ORCID iD

You can't edit or publish your profile because ORCID iD is not associated to your profile.

Please register your ORCID iD through the following "Create or Connect your ORCID iD" link. You can edit and publish your profile after associating ORCID iD.

 [Create or Connect your ORCID iD](#)



The guide is available at the following URL.

- [How to add your ORCID iD to SAMURAI](#)

For more information about ORCID and ORCID, visit the following websites.

- [about SAMURAI](#)
- [about ORCID](#)

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datacite / omniauth-orcid

<> Code

Issues 2

Pull requests 2

Actions

Projects

Security

Insights



omniauth-orcid

Public

master

2 Branches 26 Tags

ORCID authentication module developed by DataCite



Martin Fenner version bump



lib

version bump



spec

added specs for orcid api 2.0



.gitignore

Ignore the Gemfile.lock



.travis.yml

use ruby_dig 0.0.2, test with ruby 2.2



CHANGELOG.md

updated changelog



Gemfile

updated gem to fix omniauth-oauth2 re

<https://github.com/datacite/omniauth-orcid>

∨ Employment (7)

☰ Sort

National Institute for Materials Science: Tsukuba, Ibaraki, JP

Principal Engineer (Data Infrastructure Unit, Materials Data Platform, Research Network and Facility Services Division)
Employment

[Show more detail](#)

Source:  National Institute for Materials Science

National Institute for Materials Science: Tsukuba, Ibaraki, JP

2017-04-01 to 2023-03-31 | Senior Engineer (Research and Services Division of Materials Data and Integrated System)
Employment

[Show more detail](#)

Source:  Kosuke Tanabe

次世代研究者プロフィールサービス SAMURAIからNinjaへ

2015 | Journal article

DOI: [10.1241/johokanri.58.107](https://doi.org/10.1241/johokanri.58.107)

Source:  National Institute for Materials Science

★ Preferred source (of 2)

Size dependent electrocatalytic activities of h-BN for oxygen reduction reaction to water

Special Collection: [Chemical Physics of Electrochemical Energy Materials](#)

[Hung Cuong Dinh](#)  ; [Ganesan Elumalai](#)  ; [Hidenori Noguchi](#)  ; [Andrey Lyalin](#)  ; [Tetsuya Taketsugu](#)  ; [Kohei Uosaki](#)  



+ [Author & Article Information](#)

J. Chem. Phys. 158, 134713 (2023)

<https://doi.org/10.1063/5.0142527>

[Article history](#) 

<https://doi.org/10.1063/5.0142527>

If ORCID is found on Crossref DOI metadata, SAMURAI uses it to add a hyperlink to NIMS author name

Size dependent electrocatalytic activities of h-BN for oxygen reduction reaction to water

Author(s)

[Hung_Cuong_Dinh](#), [Ganesan_Elumalai](#), [Hidenori_Noguchi](#), [Andrey_Lyalin](#), Tetsuya Taketsugu, [Kohei_Uosaki](#).

Journal title

[The Journal of Chemical Physics](#) 158 [13]

ISSN: 00219606

ESI category: [CHEMISTRY](#)

Publisher

[AIP Publishing](#)

<https://samurai.nims.go.jp/articles/1fb72766-8411-40c9-8ca4-3f4556eff3ea>



Materials Data Repository (MDR)



- <https://mdr.nims.go.jp>
- Institutional repository in NIMS, released in June 2020
- About 1,600 articles and 12,700 datasets
- Assign DataCite DOI to articles (author manuscripts) and datasets using DataCite API

Search MDR

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- Date updated >

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Color-Controlled Nonstoichiometric Spinel-Type Cobalt Gallate Nanopigments Prepared by Supercritical Hydrothermal Synthesis



Description/Abstract: Spinel-type inorganic pigments with intensive color and chemical/thermal stability are showing extensive applications that could be furth...

Keyword: cobalt callate, pigment, and supercritical hydrothermal synthesis

Resource Type: Article

Author: Bo Xie, Chiya Numako, Takashi Naka, and Seiichi Takami

Journal: DALTON TRANSACTIONS

Date Uploaded: 09/12/2023

Interfacial charge transfer and electronic structure of diamond/c-BN heterointerface



Description/Abstract: In this work, the interfacial structures and electronic properties of diamond and cubic boron nitride heterostructures are

MDR XAFS DB Readme

MDR Open Deposited

ANALYTICS

Image 2 of 6 Go

CONTENTS << MDR XAFS DB Readme >> MORE INFORMATION

Atomic number

Data number

K-edge L-edge

Si(311) 2023-05

Ni Fe Zn Ti Ca S F Li Se Ni Ag Mo Zr Ru In Ag Ba Sb I Cs Eu Nd Ce Ba W Yb Er Tb Ta Pt Pb W

DOWNLOAD THIS WORK (ZIP)

This dataset consists of X-ray absorption fine structure (XAFS) spectra at Ni K-edge of HAVAR mea BL14B2, and is a part of XAFS database (MDR XAFS DB, <https://doi.org/10.48505/nims.1447>) as a c

Description

Alternative title

spring8.2f057cc2-8d9d-4ebd-83dc-e0d054e7cecb

DOI

<https://doi.org/10.48505/nims.2930>

DataCite DOI added in MDR

Creator

Name

Industrial Application and Partnership Division

Role

contact person

Keyword

Alloy

BL14B2

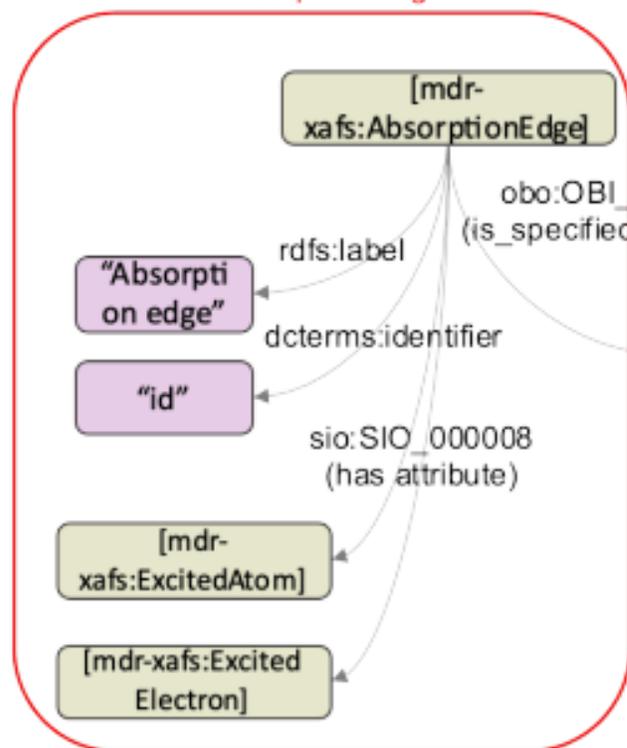
HAVAR

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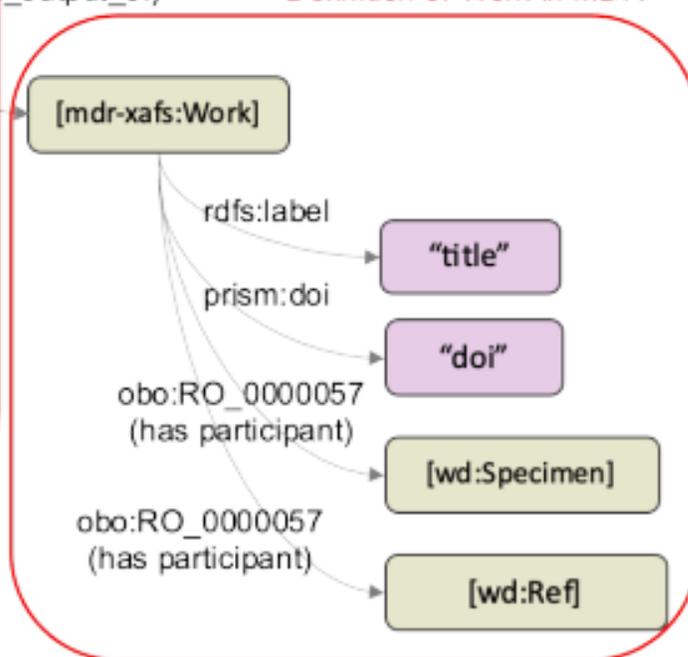
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  prism:doi "https://doi.org/10.48505/nims.1602"^^xsd:string ;
  obo:RO_0000057 wd:Q1304, wd:Q1308 .

```

Definition of Absorption Edge



Definition of Work in MDR



DICE's vocabulary service MatVoc (beta ver.)

Showing 1 result:

NIMS XAFS DB Project Materials Dictionary > Chemicals > Inorganic materials > Hydroxide > Gold(III) hydroxide

Q1304: Gold(III) hydroxide

Vocabulary ID <http://matvoc.nims.go.jp/entity/Q1304>

Language	Label	Description	Alias
English	Gold(III) hydroxide	BENTEN-registered chemicals, Au(OH) ₃	Gold(III) hydroxide, Gold(III) trihydroxide, Gold trihydroxide, Gold(III) hydroxide (Au(OH) ₃), Gold hydroxide, Auric hydroxide, Auric acid, Au(OH) ₃ , 1303-52-2
Japanese	水酸化金(III)	BENTEN登録化学物質, Au(OH) ₃	Au(OH) ₃

Semantic Relations

- Parents
- DICE Links
 - Q1304 Gold(III) hydroxide

<https://doi.org/10.48505/nims.4286>

Instance

Class

Literal

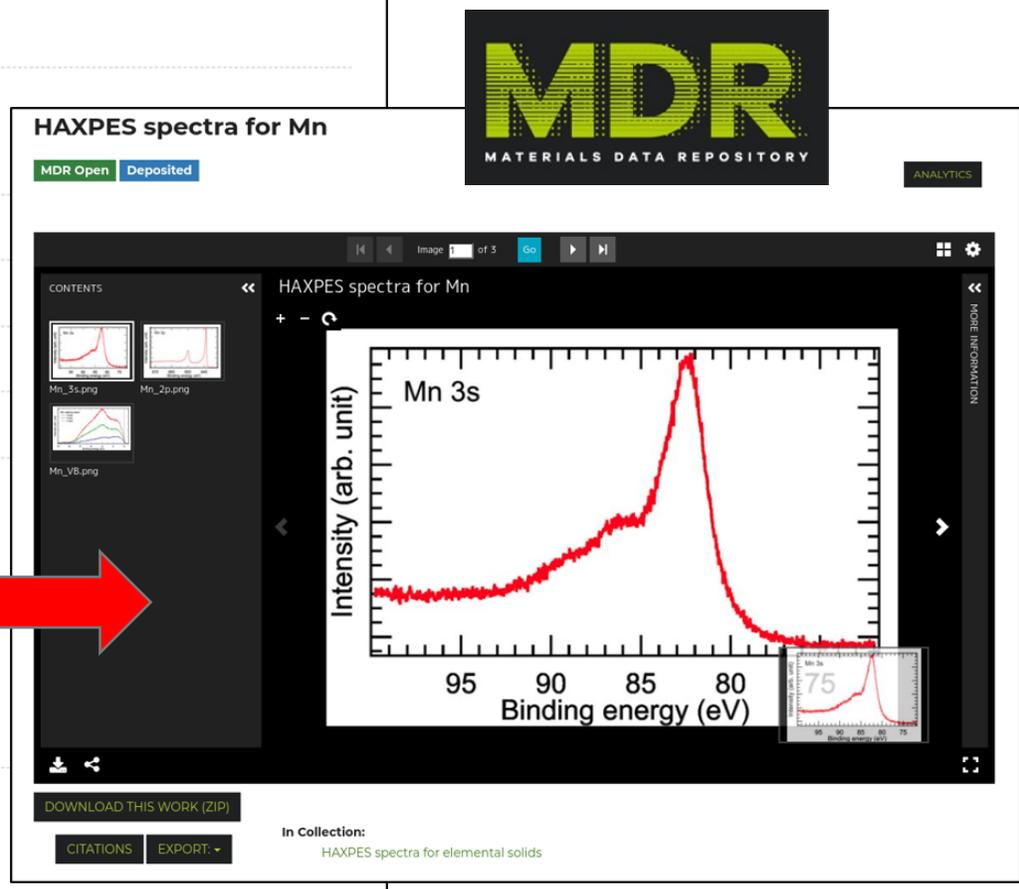
The batch script adds links to datasets on MDR to SAMURAI article detail page using DOI and ORCID in the metadata

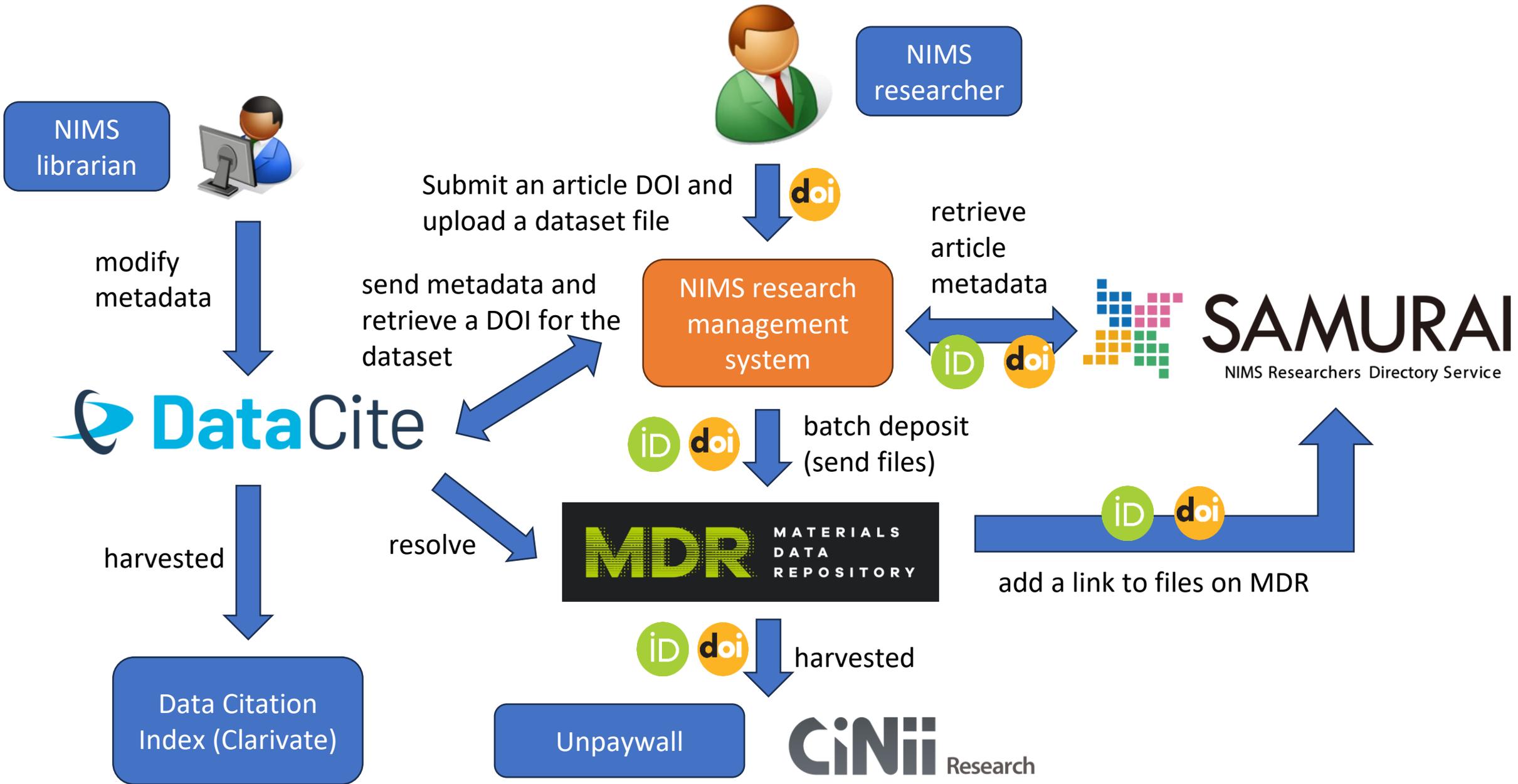
Polarization Dependent Bulk-sensitive Valence Band Photoemission Spectroscopy and Density Functional Theory Calculations: Part I. 3d Transition Metals

著者	Shigenori Ueda , Ikutaro Hamada.
掲載誌名	Journal of the Physical Society of Japan 86 [12] 124706 ISSN: 13474073, 00319015 ESIでのカテゴリ: PHYSICS
出版社	Physical Society of Japan
発表年	2017
言語	English
DOI	https://doi.org/10.7566/jpsj.86.124706

本文ファイル・データセット	MDR	available	HAXPES spectra for Fe
	MDR	available	HAXPES spectra for Co
	MDR	available	HAXPES spectra for Zn
	MDR	available	HAXPES spectra for Ti
	MDR	available	HAXPES spectra for Ni
	MDR	available	HAXPES spectra for Cr
	MDR	available	HAXPES spectra for V
	MDR	available	HAXPES spectra for Mn
MDR	available	HAXPES spectra for Cu	

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NIMS research management system

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- For articles published in non-open access journals, you may upload the author's version of the final manuscript file (the file without the publisher's logo after the acceptance decision has been made).

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Researchers can use a DOI to import article metadata when they upload a dataset for the article

疎結合構成によるFRBR モデルに基づく書誌情報システム

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Article metadata and ORCID iD are automatically imported to the deposit form

An example of DataCite metadata for supplementary data

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            }
          ]
        }
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  }
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MDR URL

DataCite DOI for the dataset

Title of the dataset

Data creator and ORCID iD

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    "lang": "und"
  }
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Description of the dataset

Journal article DOI related to the dataset



Challenges and future tasks

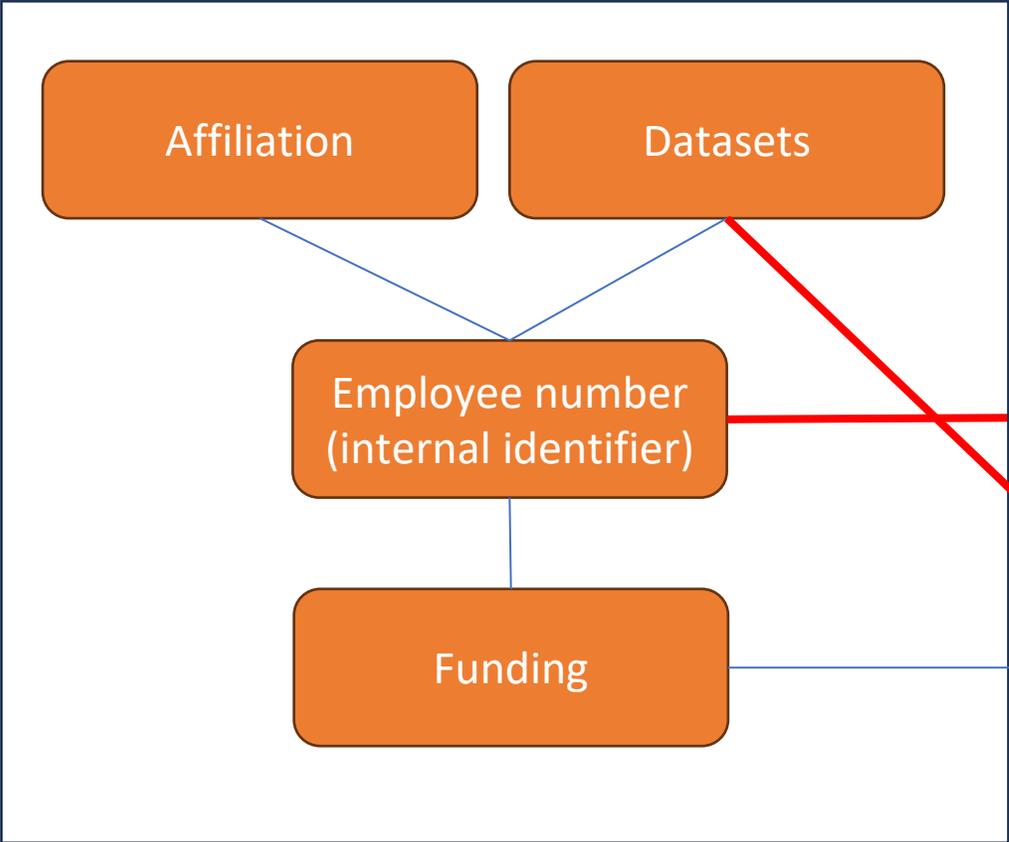
- Not all NIMS authors use ORCID when they submit an article
 - e.g., corresponding author is not a NIMS researcher
 - Librarians add NIMS authors' ORCID iDs to the DataCite metadata manually if they are not on the metadata retrieved from Crossref or JaLC
- Strong demand for usage statistics for datasets on MDR
 - Considering DataCite usage tracker



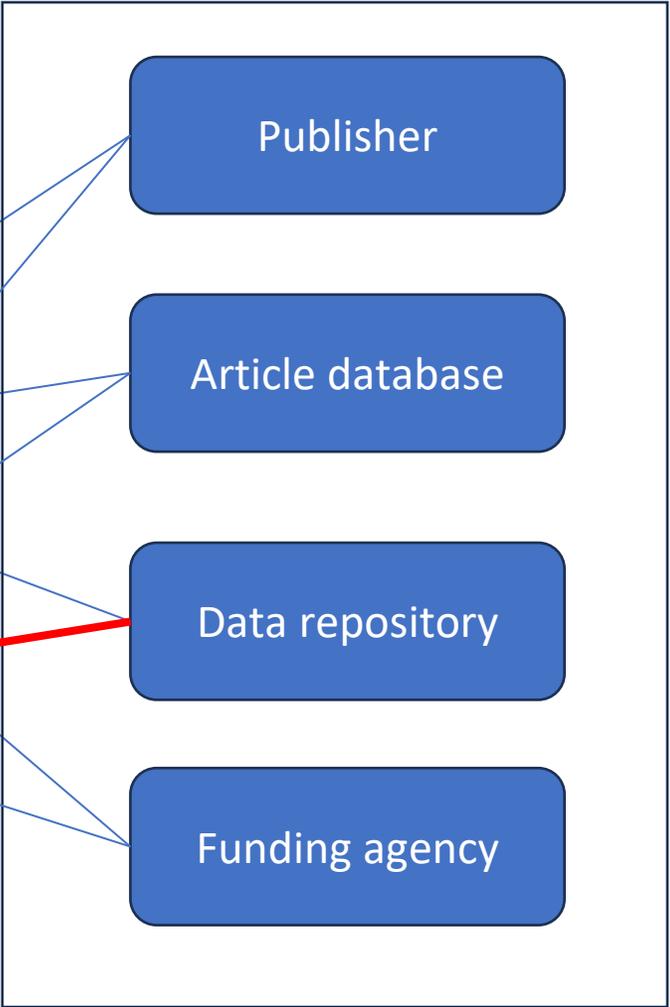
<https://support.datacite.org/docs/displaying-usage-and-citations-in-your-repository>

PIDs connect internal and external, local and global resources!

Internal (closed) research information



Global (open) research information





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