

# What are Persistent Identifiers (PIDs) and what can I do to benefit of them

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5.1 Data and Information Management

Coffee Lecture Bibliothek des Wissenschaftsparks Albert Einstein

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# What is a persistent identifier?

A persistent identifier (**PID**) is a **unique code of a digital resource** that can be **permanently** referenced on the Internet. This **prevents dead links** from being created if, for example, publishers change the Internet address of a server. (modified from Forschungsdaten.info)



<https://gfz-potsdam.de>



<https://gfz.de>

# What PIDs are mostly used?



for texts, data, software

<https://doi.org/10.5880/fidgeo.2021.049> (Data)



ORCID iD: uniquely identifying persons

<https://orcid.org/0000-0001-5140-8602> (K. Elger)



PID for Institutions

<https://ror.org/04z8jg394> (GFZ)



**Crossref**

Funder Registry

List of funders with DOIs

<http://doi.org/10.13039/501100001659> (DFG)



Persistent Identification of Instruments (PIDinst)

<https://hdl.handle.net/11708/37B4E3C1-3DCC-4B7B-B475-87A3177F6030> (seismic sensor @ GIPP, GFZ)

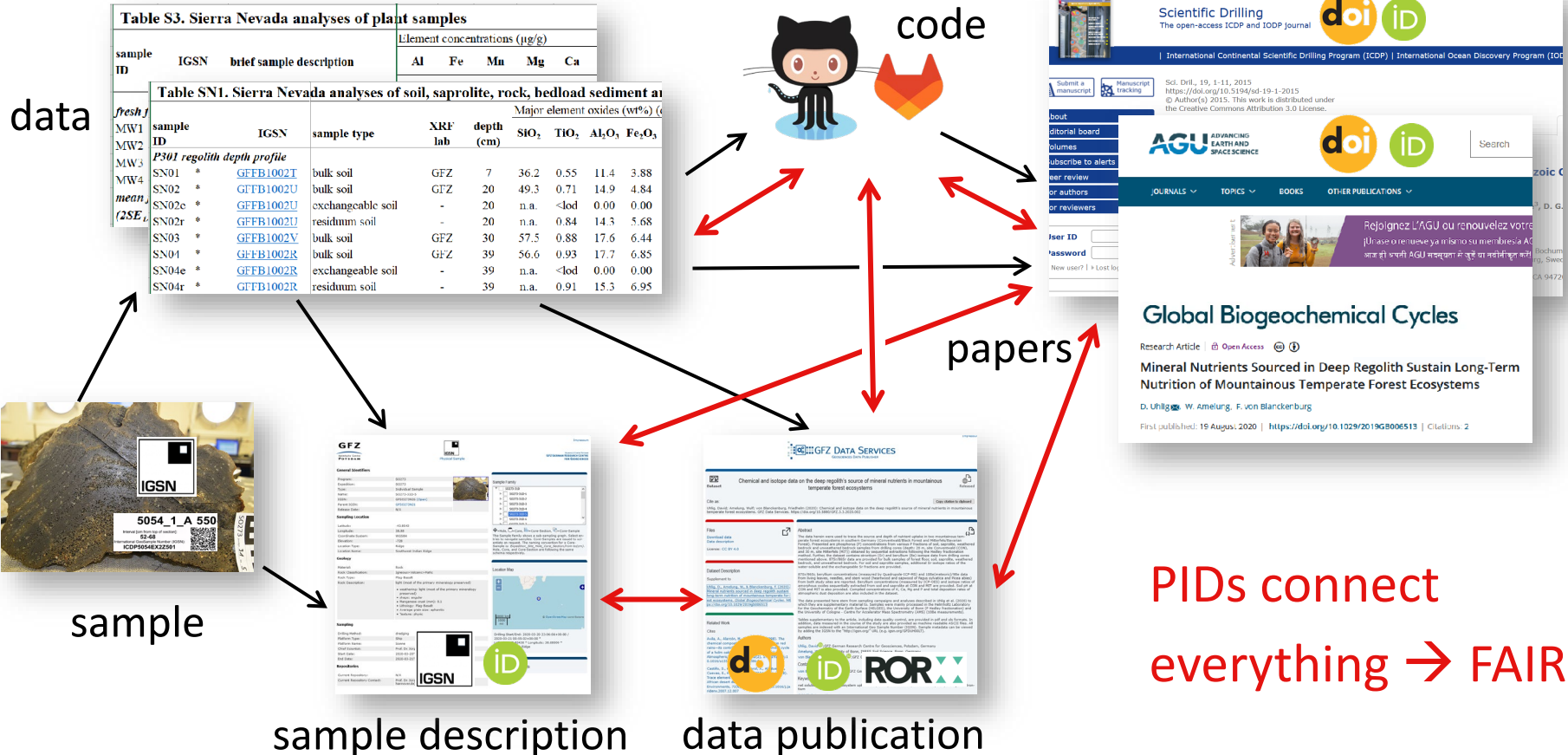


Int. Generic Sample Number:  
PID for physical samples

<https://igsn.org/GFFJH00AD> (Rock sample)

→ PIDs ARE RESOLVABLE AND MACHINE-ACTIONABLE

# Connecting research outcomes via PIDs



# What can I do to benefit of PIDs?



Get yourself an ORCID and always provide it in any text, data or software publications (<https://orcid.org>)



## THE EPOS MULTI-SCALE LABORATORIES: A FAIR FRAMEWORK FOR STIMULATING OPEN SCIENCE PRACTICE ACROSS EUROPEAN EARTH SCIENCES LABORATORIES

PDF

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paper



**Dataset** Mantle heterogeneity generated by melt depletion and melt-rock interaction: the West Iberian margin peridotites (ODP Leg 149 and 173)

Cite this dataset: Secchiari, Arianna; Godard, Marguerite; Montanini, Alessandra (2024): Mantle heterogeneity generated by melt depletion and melt-rock interaction: the West Iberian margin peridotites (ODP Leg 149 and 173). GFZ Data Services. <https://doi.org/10.5890/rdgeo.2024.011>

Files  
Download data and description  
License: CC BY 4.0

Dataset Description  
Supplement to  
<https://doi.org/DOI of paper when available>

Related Work

**Abstract**  
This database contains mineral major and trace element compositions of mantle peridotites recovered at the West Iberian margin during ODP Leg 149 and 173 (Wittmann et al., 1996, 1998). The West Iberian margin (WIM) represents the continental rifted margin marking the western edge of the Iberian Peninsula, being presently regarded as the most iconic example of a magma-poor passive margin. From north to south, the margin can be divided into three main segments (Fig. 1): (i) the Galicia margin; (ii) the South Galicia Abyssal Plain and (iii) the Tagus Abyssal Plain. This segmentation resulted from rifting and continental breakup between the North American and European/Iberian plates during Early Cretaceous time (Wittmann & Wallace, 2001 and references therein).

**Authors**  
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data publication

# What can I do to benefit of PIDs?



Wissenschaftlerin  
Dr. Kirsten Elger  
5.1 Daten- und Informationsmanagement

- E-Mail
- vCard
- ID 0000-0001-5140-8602

Adding your ORCID to your GFZ profile ensures that it is verified by you!

Welcome!

Sign in to continue with Web of Science

Sign in

Register

Use your ORCID for login

Email address \*

Password \*

[Forgot Password?](#)

Sign in

or sign in using



# More to ORCID

GMIT 87 (March 2022)



## FID GEO latest: Recommendations for using ORCID iD

In an increasingly connected scientific landscape, the growing number of published research outputs (data, text, software) and new open publishing models pose major challenges for scientific publication management. A persistent problem in the publication process is the globally unambiguous attribution of individual authors to

For repositories such as GEO-LEOe-docs and GFZ Data Services, the curation work for text and data publications is strongly facilitated by a minimum number of activated visibility settings in the personal ORCID profiles (the so-called 'ORCID Record'). For unambiguous identification, we recommend that you make at least your full name (i.e.



Lorenz et al. (2022) <https://doi.org/10.23689/fidgeo-5386> (German version)

Lorenz et al. (2023) <https://doi.org/10.23689/fidgeo-5832> (English version)

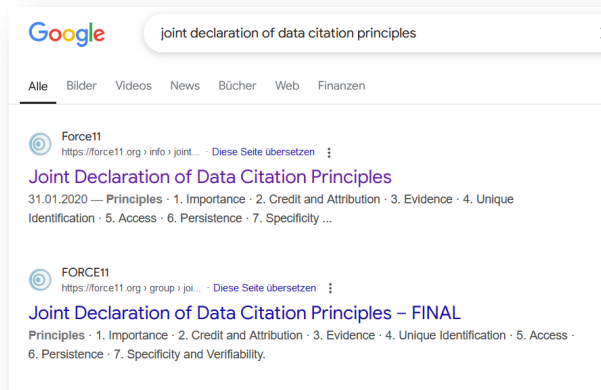
# Speaking of DOI...

- Always add the DOI when you cite papers, data, or code publications
- Please use <https://doi.org/10.<DOI number>> to enable direct links to the cited object

Data Citation Synthesis Group: Joint Declaration of Data Citation Principles, edited by: Marttone, M., FORCE11, San Diego, <https://doi.org/10.25490/a97f-egyk>, 2014.

one reference in Ince et al. (2019, ESSD)

one click



Google search without DOI link





# How do I cite a dataset?

## Properties of granular analogue model materials: A community wide survey

M. Klinkmüller<sup>a</sup>, G. Schreurs<sup>a,1</sup>, M. Rosenau<sup>b</sup>, H. Keminzitz<sup>b</sup>

<sup>a</sup> Institute of Geological Sciences, University of Bern, Baltzerstrasse 1 +3, CH-3012 Bern, Switzerland  
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sented as grain size distribution curves, in which particle grain size is plotted against cumulative weight percentage (Fig. 2).

The original sieve data have been published open access and are available in **Klinkmüller et al. (2016b)**.

### References

Heilbronner, R., Keulen, N., 2006. Grain size and grain shape analysis of fault rocks. *Tectonophysics* 427, 199–216.

Hubbert, M.K., 1951. Mechanical basis for certain familiar geologic structures. *Geol. Soc. Am. Bull.* 62, 1259–1273.

Klinkmüller, M., Schreurs, G., Rosenau, M., 2016a. GeoMod2008 materials benchmark: The ring shear test data set. *GFZ Data Services*. <http://dx.doi.org/10.5880/GFZ.4.1.2016.002>.

Klinkmüller, M., Schreurs, G., Rosenau, M., 2016b. GeoMod2008 materials benchmark: The sieve data set. *GFZ Data Services*. <http://dx.doi.org/10.5880/GFZ.4.1.2016.003>.

Klinkmüller, M., Keminzitz, H., Schreurs, G., Rosenau, M., 2016c. GeoMod2008 materials benchmark: The SEM image data set. *GFZ Data Services*. <http://dx.doi.org/10.5880/GFZ.4.1.2016.004>.

Link to paper

1. Citation in the text

## 3. Data access via DOI

**GFZ**  
Helmholtz Centre  
POTSDAM

GeoMod2008 materials benchmark: The sieve dataset

Released

Copy citation to clipboard

Cite as:  
Klinkmüller, Matthias; Schreurs, Guido; Rosenau, Matthias (2016): GeoMod2008 materials benchmark: The sieve dataset. *GFZ Data Services*. <http://doi.org/10.5880/GFZ.4.1.2016.003>

**Data Files**

SieveDataOverview.pdf 218020 Bytes

Sieve-data.zip 735235 Bytes

Explanations for the Sieve dataset.pdf 536692 Bytes

License: CC BY 4.0

**Abstract**

This dataset provides sieve data (grain size distributions) on natural and artificial granular materials used for experimental simulation by the analogue geodynamic modelling community (21 sands and glass beads). The material samples have been collected community-wide and analysed at GFZ Potsdam in the framework of the GeoMod2008 conference benchmark initiative. The context of data collection, details of the material samples and measuring techniques as well as interpretation and discussion of results can be found in Klinkmüller et al. (2016) to which this dataset is supplement material.

An overview of all files of the data set is given in the table SieveDataOverview.

**Methods**

The data presented here are derived by sieving using a RETSCH Vibratory Sieve Shaker AS 300 basic at GFZ Potsdam's analogue laboratory for tectonic modelling. Mesh sizes used were 630, 400, 355, 224, 125, and 63 micrometer. 1 kg of each sample material has been sieved for 4 hours at maximum Amplitude (3 mm). Laboratory conditions were air conditioned during all the measurements (Temperature: 23°C, Humidity: 45%).

The resulting sieve analysis data are presented as fractions of 1 kg.

**Dataset Contact**

Rosenau, Matthias; GFZ German Research Centre for Geosciences, Potsdam, Germany; rosen\_cat\_gfz@potsdam.de; <http://www.gfz-potsdam.de/en/sector/infrastructure/geodynamics/infrastructure/geodynamics/tectonic-modelling-lab/>

**Keywords**

analogue materials, granular materials, bulk solids, analog models, sandbox, benchmark, Geomod, EPOS, experiment, properties of materials, geological process, materials science

**GCMD Science Keywords**

EARTH SCIENCE SERVICES > MODELS > PHYSICAL/LABORATORY MODELS  
EARTH SCIENCE > SOLID EARTH > TECTONICS

2. Full reference with DOI in the References