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**COPDESS**  
(Coalition for Publishing Data in the Earth & Space Sciences)

“Connecting Earth Science publishers and Data Facilities to help translate the aspirations of open, available, and useful data from *policy into practice.*”
Data Repositories & Publishers

- Scholarly publication is a key high-value entry point in making data available.
- Majority of data submitted along with publications are in formats and forms of storage that make discovery and reuse difficult or impossible.
- Domain repositories provide quality and standards, enriching and organizing data from multiple sources to facilitate new discoveries.
- Connection between publishers and domain repositories is essential to promulgate best practices.
Editors Roundtable Status 2008

- We should establish policies that improve general data reporting standards.
- that facilitate the seamless incorporation of data into scientific databases.
- Scientific journals, through a coordinated Editorial Policy on Data Reporting, are the most effective agents to rectify these problems.

Requirements for the Publication of Geochemical Data

Policy Statement
Version 1.1 (January 2009)

The following policy statement was generated by the Editors’ Roundtable, the participants of which are listed below. The Editors’ Roundtable met 3 times (1: August 2007, 2: July 2008, 3: December 2008)¹. A draft policy statement was approved in July 2008. The revised final revised version 1.1 was approved in December 2008.

Organizers:
Goldstein, Steven (Editor, Chemical Geology (until 2008); SESAR, SedDB) (1,2,3)
Hofmann, Albrecht (Editor, Earth & Planetary Science Letters, GEOROC) (1,2)
Lehner, Kerstin (EarthChem, PetDB, SedDB, SESAR) (1,2,3)
Committing to Publishing Data in the Earth and Space Sciences

A new initiative joins together publishers and data facilities to enable data stewardship.

By Brooks Hanson, Kerstin Lehnert, and Joel Cutcher-Gershenfeld  •  15 January 2015

www.copdess.org
COPDESS: Goals

- foster consensus and consistency among publishers, editors, funders, and data repositories
  - on how data that are part of scholarly publications should be curated and published
- help data repositories collect the data that are within their scope more easily and comprehensively, raise their visibility
- help authors properly submit their data to repositories up front
  - Simplify data submission process
  - Provide sufficient information about it
- help journals, funding agencies, and the research community by doing all of the above

Approach: Continued dialog & practical resources
COPDESS Achievements

- 2 major workshops (2014, 2015) and ongoing Town Halls at major Earth & Space Science conferences (AGU, GSA, EGU)
- Statement of Commitment signed by >40 publishers and data facilities
- Guidelines for journals released
- COPDESS directory of data repositories online
- MOU with re3data.org
“Earth and space science data should, to the greatest extent possible, be stored in appropriate domain repositories that ... follow leading practices, and can provide additional data services.”
Specific Commitments

- Provide an online community directory of appropriate Earth and space science community repositories.
- Promulgate metadata information and domain standards.
- Promote education of researchers in data management; organize and develop training and educational tools and resources.
- Promote referencing of data sets using the Joint Declaration of Data Citation Principles.
- Include in research papers concise statements about data location and availability.
- Develop workflows within the repositories that support the peer review process (for example, embargo periods with secure access) and within the editorial management systems that will ease transfer of data to repositories.
- Use of Persistent Identifiers (ORCID, IGSN, FundRef)
Guidelines for Journals

COPDESS Suggested Author Instructions and Best Practices for Journals

The Coalition on Publishing Data in the Earth and Space Sciences (COPDESS) develops and recommends best practices for journal author instructions around data and identifiers as a resource to the community. These best practices are consistent with and based on the COPDESS Statement of Commitment and have been developed with guidance from participants in COPDESS.

Data Policy Statement
Data Citation
Sample Citation and Identification
Crossref Funder Registry
ORCIDs
Example:
Best Practices for Author Guidelines

- Include a prominent statement about data availability and link to COPDESS.
- Encourage editors, reviewers, and staff to evaluate data and affirm availability.
- Statement [above] is one minimal version of data availability requirements. Other examples are provided here: http://www.copdесс.org/datapolicies/
- Software availability should be included as part of data availability.
Example:
Best Practices for Data Citation

- Journals should include data citations in the reference section of articles.
- Journals should instruct their copyeditors to endeavor to identify data citations that are in line in the text and query authors about creating citations following guidelines above in references.
- Journals and editors should encourage authors to deposit relevant data sets in domain repositories, or if a domain repository is not available, general repositories, rather than as supplementary information.
“This directory will help you, as an Earth and Space science researcher, author, or journal, find the right repository for your data, based on data type, discipline, and other relevant repository factors.”

https://copdessdirectory.osf.io/
EarthChem Library

Endorsed By:
- No Journal Endorsements

URL: http://www.earthchem.org/library

Description: The EarthChem Library (ECL) is an open access data repository that archives, publishes and makes accessible data and other digital content from geoscience research with a focus on geochemical data from the Earth and space sciences (analytical data, data syntheses, models, technical reports, etc.). The ECL offers a complete suite of services for data preservation and access, including long-term archiving and registration of data with DOIs®, data and metadata quality control, and support for investigators to comply with data policies of publishers and funding agencies (linking data to publications and awards, creating Data Compliance Reports). Data can be submitted to the EarthChem Library online.

Date Operational: Jan. 1, 2012
Contact: info@earthchem.org

Accepted Data Types:
- Software or Code
- major and trace element compositions
- stable and radiogenic isotope ratios
- geochemical analysis of earth materials and experiments
- thermodynamic data on earth materials and experiments

Metadata Information URL: http://www.earthchem.org/library/help/guidelines

Repository Certifications:
- World Data System (WDS) Certification

Size: 250 datasets

Hosting Institute: Interdisciplinary Earth Data Alliance (IEDA), Lamont-Doherty Earth Observatory

Allows Embargo Period: Yes
Provides DOI: Yes

Links to Publications: Yes

Taxonomies:
- 504 Geochemistry
- 50401 Biogeochemistry
- 50402 Geochemistry
- 50403 High Temperature Geochemistry
- 50404 Igneous Petrology
- 50405 Low Temperature Geochemistry
- 50406 Metamorphic Petrology
- 50407 Mineralogy
- 50408 Petrology
- 50409 Volcanology
- 509 Paleogeosciences
- 50901 Paleontology
- 50903 Paleomagnetism
Repositories Submission Form

Note: You are submitting this form anonymously. If you wish to be able to make edits in the future, please register and log in.

Starred (*) fields are required.

Date Operational: 2016-07-01

Check if your repository can sync data release to publication date and allows reviewers secure access.

Allows Embargo Period: 

Check if a doi or other permanent identifier is provided for data sets.

DOI Provided: 

Check if you link data sets to publication DOI's.

Links to Publications: 

Repository Certifications:
- ISO 16363
- World Data System (WDS) Certification
- Data Seal of Approval (DSA) Certification
- DIN 31644/NESTOR

Submit
re3data.org & COPDESS

- **Goal**: Avoid multiple repository directories!
- **Concept**: COPDESS provides an Earth & space science specific portal for author, journals, and repositories.
- **Action**: Enable COPDESS to dynamically query and embed a subset of selected records into its website (currently being developed by COS) and add/extend selected vocabularies.
  - Memorandum of Understanding between re3data.org and Center for Open Science.
Next Focus: Educate Editors & Authors

- Joint initiative with the political/social science data repositories (ICPSR/G.Alter & Qualitative Data Repository/C.Elman)
  - Domain specific editors workshops.
  - Program for collective pan-disciplinary organizations (CSE, SSP, etc);
  - Programs aimed at young researchers.
- Plans for RDA Working Group, also seeking funding

- Power is working within domain-specific publishing culture
- Get trusted leaders in the domains to advocate & educate