DATA AVAILABILITY

AIP Publishing believes that all datasets underlying the conclusions of the paper should be available to readers. We encourage authors to deposit their datasets in publicly available repositories (where available and appropriate) or present them in the main manuscript. All research articles must include a data availability statement informing readers where to go to request or access the underlying data of the article. By data we mean the minimal dataset that would be necessary to interpret, replicate, and build upon the findings reported in the article.

Please be aware that the following journals require that any new data and/or code must be made publicly available either in a repository of the author's choosing or within the manuscript itself at the time of manuscript submission:
- *APL Computational Physics*
- *APL Machine Learning*

TEMPLATES FOR DATA AVAILABILITY STATEMENTS FOR AUTHOR USE

Below is a list of standard templates for the text that will appear in the "Data Availability Statement" section of your article. Not all templates are acceptable in journals that require data or code deposition at the time of manuscript submission. When multiple data sets are being described, please provide information regarding the data type for the benefit of the reader.

AVAILABILITY OF DATA	TEMPLATE FOR DATA AVAILABILITY STATEMENT	ACCEPTABLE IN JOURNALS THAT REQUIRE DATA AND/OR CODE DEPOSITION AT THE TIME OF SUBMISSION?
Data available on request from the authors	The data that supports the findings of this study are available from the corresponding author upon reasonable request.	No
Data available in the article or supplementary material	The data that supports the findings of this study are available within the article [and its supplementary material].	Yes
Data openly available in a public repository that issues datasets with DOIs	The data that support the findings of this study are openly available in [repository name] at http://doi.org/[doi], reference number [reference number].	Yes
Data openly available in a public repository that does not issue DOIs	The data that support the findings of this study are openly available in [repository name], reference number [reference number].	Yes
Data sharing not applicable – no new data generated	Data sharing is not applicable to this article as no new data were created or analyzed in this study.	Yes
Data generated at a central, large-scale facility	Raw data were generated at the [facility name] large scale facility. Derived data supporting the findings of this study are available from the corresponding author upon reasonable request.	Yes
Embargo on data due to commercial restrictions	The data that support the findings will be available in [repository name] at [DOI link] following an embargo from the date of publication to allow for commercialization of research findings.	Yes
Data available on request due to privacy/ethical restrictions	The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to [state restrictions such as privacy or ethical restrictions].	Yes
Data subject to third party restrictions	The data that support the findings of this study are available from [third party]. Restrictions apply to the availability of these data, which were used under license for this study. Data are available from the authors upon reasonable request and with the permission of [third party].	Yes

When data is available and linked, authors will need to provide a citation of the data in their reference list.
Citing a dataset on the reference list:

Required elements: *Creator(s), Publication Year, Title, Publisher, and Identifier*

Optional elements: *Version and Resource Type*

DATA AVAILABILITY

HOW TO CITE DATASETS IN REFERENCES

We recommend the following dataset citation format: **Creator(s) (Publication Year). "Title," Publisher. Identifier**

Please note:

- **Creator(s):** The Author names that you have listed
- **Publication year:** The year when the data was made publicly available
- **Title:** This should match the upload.
- **Publisher:** The name of the entity that holds and archives the dataset,
- **Identifier:** DOIs should be displayed as linkable, permanent URLs, including the **https://doi.org prefix**.
- **Data set citation format:** PNG

EXAMPLE

Dataset: J. Smith and M. Ross (2015). "Chemical and mineral compositions of sediments from ODP Site,"

Name of repository. https://doi.org/12.3456/nameofrepository.78901

Information about Version and ResourceType can also be included in the reference, but is not required: **Creator(s) (Publication Year). "Title," Version, Publisher, ResourceType. Identifier**

EXAMPLE

J. Smith and M. Ross (2015). "Chemical and mineral compositions of sediments from ODP Site," Name of repository, V. 2.1, Dataset. https://doi.org/12.3456/ nameofrepository.78901

example found in article PDF