

## GCA Submission Checklist

Please complete this checklist by entering an “X” for each entry once you have verified that your manuscript complies with the requirement. In some cases, the requirement may not be applicable and “NA” should instead be entered. Please upload this form in Editorial Manager when you submit your manuscript. Before completing this checklist, please review the Guide for Authors:

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- \_\_\_\_\_ The title summarizes the major scientific finding of the study rather than the study location or the methods used.
- \_\_\_\_\_ The manuscript lists only one corresponding author.
- \_\_\_\_\_ The first page of the manuscripts lists the names and affiliations of all authors. Affiliations are needed for identifying conflicts of interests in the review process. **Note that manuscripts lacking author affiliation information on the first page will be returned without review.**
- \_\_\_\_\_ The abstract is less than 500 words in length and formatted as 1 to 2 paragraphs.
- \_\_\_\_\_ Citation of references in the abstract have been avoided to the extent possible.
- \_\_\_\_\_ Acronyms/abbreviations have only been defined in the abstract if the term appears three or more times.
- \_\_\_\_\_ Three or more keywords have been provided. **Do not provide Highlights or Graphical Abstracts, these are not part of GCA format.**
- \_\_\_\_\_ The introduction is a single section without subsections and avoids excessive review.
- \_\_\_\_\_ The manuscript contains separate Results and Discussion sections. If this is not possible, then a request and justification for combined Results and Discussion sections have been added to the Cover Letter.
- \_\_\_\_\_ The Discussion section (or a subsection) clearly addresses the broader geochemical and/or cosmochemical significance and implications of the study.
- \_\_\_\_\_ Acronyms/abbreviations are defined at first use in the main text. Note that the abstract is considered a separate document and all acronyms/abbreviations used in the main text must be defined in the main text.
- \_\_\_\_\_ Equations have been submitted as editable text and not as images.
- \_\_\_\_\_ All figures comply with the Artwork requirements listed in the Guide for Authors.
- \_\_\_\_\_ Maps providing geographical context for the study are based on physical geographic features and do not display national borders or other political boundaries.
- \_\_\_\_\_ All tables intended for publication in the main paper have been provided in a format generated using Microsoft Word, LaTeX, or similar document preparation software. **Tables are not accepted in XLSX format and cannot contain shading or color.**
- \_\_\_\_\_ All numbers in tables appear in decimal format (e.g., 2.873), scientific notation (e.g.,  $4.76 \times 10^{-5}$ ), or a related format. Excel-style scientific notation (e.g., 8.54E-03) is not an acceptable format.
- \_\_\_\_\_ The Acknowledgments identifies the source(s) of funding that supported the study.

- \_\_\_\_\_ (Required only if the paper involves meteorite samples) Meteorite nomenclature uses the approved list of names in the Meteoritical Bulletin Database and new meteorite names have been submitted for consideration by the Meteorite Nomenclature Committee.
- \_\_\_\_\_ A CRediT authorship statement has been included in the paper. See: <https://www.elsevier.com/researcher/author/policies-and-guidelines/credit-author-statement>
- \_\_\_\_\_ The data underlying all figures and tables in the main paper and any supplementary material have been made available in a text-based numerical format via deposition in an open-access repository. A section entitled “Data Availability” has been added followed by a sentence indicating the repository and the URL for the data. An example of this section might appear as follows:  
  
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Data are available through Mendeley Data at <https://doi.org/10.17632/cfdzx2rh8z.1>.  
  
All data appearing as a point, line, or bar plot, including spectra, diffraction patterns, and chromatograms, must be provided. All data appearing in the manuscript and any supplementary documents, figures, or tables must be made available upon submission. Images, maps, movies, and similar large datasets are excluded from this requirement. Consult the Data Availability section of the Guide for Authors for more details on complying with this requirement. Note that failure to comply with this requirement may result in the manuscript being returned without review.
- \_\_\_\_\_ If one or more Supplementary Material files are included in the submission, a section titled “Appendix A. Supplementary Material” is inserted between the Acknowledgements and References and briefly describes the contents of all supplementary files. This text should explain to readers the information that they can find in the supplementary file(s). This should be written in paragraph format, not as a list of captions. Do not discuss filenames, these names are lost when a paper is published online. Do not include text stating that the supplementary material can be found online, similar text is added during production.
- \_\_\_\_\_ Supplementary figures and their captions are embedded in a single PDF document rather than uploaded as a series of separate image or PDF files.
- \_\_\_\_\_ Supplementary files have been combined into a single PDF document to the extent possible. This file includes a cover page indicating the article title and authors. **Note that DOCX files are not accepted as supplements; these must be converted to PDF before submission.**
- \_\_\_\_\_ Any use of generative AI in preparation of the manuscript is disclosed in the paper. See the Disclosure Instructions in the GCA Guide for Authors.
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