

Sample published article for *AIP Advances*^a

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This is an abstract. It gives the reader an overview of the manuscript. In this sample published article we provide instructions on how to prepare and submit an article to *AIP Advances*, a journal published by the American Institute of Physics (AIP). Authors must follow the instructions given in this document. The AIP staff appreciates the effort to following our style when preparing a manuscript. *Copyright 2011 Author(s). This article is distributed under a Creative Commons Attribution 3.0 Unported License.* [doi:[10.1063/1.3496358](https://doi.org/10.1063/1.3496358)]

I. INTRODUCTION

This “sample published article” is a visual guide for a published article. This will ensure that your submission will be in the required format for Peer Review. Please read all of the following manuscript preparation instructions carefully and in their entirety. The manuscript must be in good scientific American English; this is the author's responsibility. All files MUST be submitted through our online electronic submission system at aipadvances.peerx-press.org/.

A. Manuscript preparation

Articles must be prepared as either a Microsoft Word .doc file or a REVTeX/LaTeX file. The entire manuscript, should be set up for 21.6 × 28 cm (8-1/2 × 11 in. or A4) pages with 2.54 cm (1 in.) margins all the way around. The font and the point size will be reset according to the journal's specs, but authors most commonly use the Times Roman font and point size 12. The manuscript must begin with a title, names of all authors and their affiliations, and an abstract, followed by the body of the paper, tables and figures, if any, included, and the reference section. Consecutively number all tables (I, II, III, etc.) and figures (1, 2, 3, etc.), including those in an Appendix. Figures may be embedded in the text or not (author's choice). Figure captions must be included in the manuscript. Number all pages consecutively, beginning with 1.

B. Manuscript submission

All files MUST be submitted through the online system: aipadvances.peerx-press.org/. Each version of the manuscript (the original and subsequent revisions) should be submitted with its own complete set of files: a cover letter (indicating the title, authors, and contact information), a complete article file, and separate figure files (see Sec. VIII—FIGURES). When uploading a revised manuscript, also include a response/rebuttal letter (indicating the changes made to address the Editor's and Reviewers' comments).

^aContributed paper, published as part of the Proceedings of the 17th International Conference on Physics, Anytown, State, January 2011.

^bA. Author and B. Author contributed equally to this work.

^cThis research was performed while C. Author was at Anywhere National Laboratory, City, State, Postal code, Country.

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II. TITLE

Make the title as concise as possible but informative enough to facilitate information retrieval. Only the most common acronyms and abbreviations are allowed in the title. Use acronyms with considerable moderation and always define at first use.

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Limit the abstract to less than 500 words. It must be self-contained (contain no footnotes or citations to references), adequate as an index (giving all subjects, major and minor, about which new information is given), and a concise summary (giving the conclusions and all results of general interest in the article). The abstract must be one paragraph and should not contain displayed mathematical equations or tabular material. AIP Advances does not require PACs numbers.

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^aContributed paper, published as part of the Proceedings of the 17th International Conference on Physics, Anytown, State, January 2011.

^bA. Author and B. Author contributed equally to this work.

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VI. HEADINGS

Headings are mandatory in regular articles. Maintain a consistent heading style within the article. Sections are numbered in AIP Advances in the following order:

I. PRINCIPLE HEADING

A. First subheading

1. Second subheading

a. Third subheading.

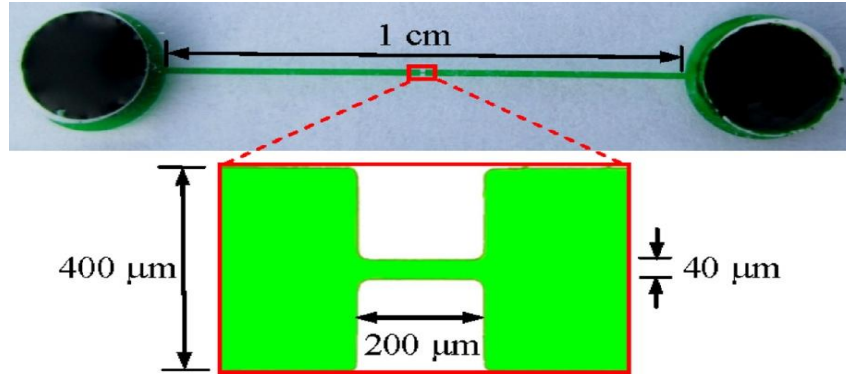


FIG. 1. This figure will appear in color. Figures should be created at 300 dpi and submitted at 300 dpi for the best presentation.

VII. EQUATIONS

Equations should be punctuated and aligned to bring out their structure and numbered consecutively throughout on the right. Mathematical operation signs indicating continuity of the expression should be placed at the left of the second and succeeding lines. Use (\times) rather than a centered dot, except for scalar products of vectors. Use a solidus (/) instead of built-up fractions in running text, and in display wherever clarity would not be jeopardized. Use “exp” for complicated exponents.

$$B_i = \begin{pmatrix} 1 & 2 & \cdots & N \\ B_i 1 & B_i 2 & \cdots & B_i N \end{pmatrix}, \quad (1)$$

$$I_D \theta = \frac{a}{2} + \sum_{n=1}^2 \cos 2n\theta + \sin 2n\theta. \quad (2)$$

In appendices, the numbering sequence (A1), (A2), (A3), etc. is acceptable.

Please note that you must use MathType or the Equation Editor 3.0 and NOT Microsoft Math Editor. When equations built with Microsoft’s Editor are back-saved, they are converted to low-resolution graphics and are not usable.

VIII. FIGURES

Cite figures in text in numerical order of publication-ready illustrations. Figures in Appendices will be renumbered following the sequence in text. It is vital that you prepare your illustrations so that they are legible when reduced. Figures 1–4 show examples of various types of production-ready illustrations: color, line art, halftone, and combination (line art and halftone).

IX. TABLES

Separate tables (numbered with Roman numerals in the order of their appearance in the text) should be used for all but the simplest tabular material. Tables must have captions that make the tables intelligible without reference to the text. The structure should be clear, with simple column headings giving all units. Unaltered computer output and notation should be uploaded as supplemental files. Table captions are positioned above the table and should be styled as “TABLE I. This is a table caption.” Capitalize the first word in the table headings and subheadings. Tables

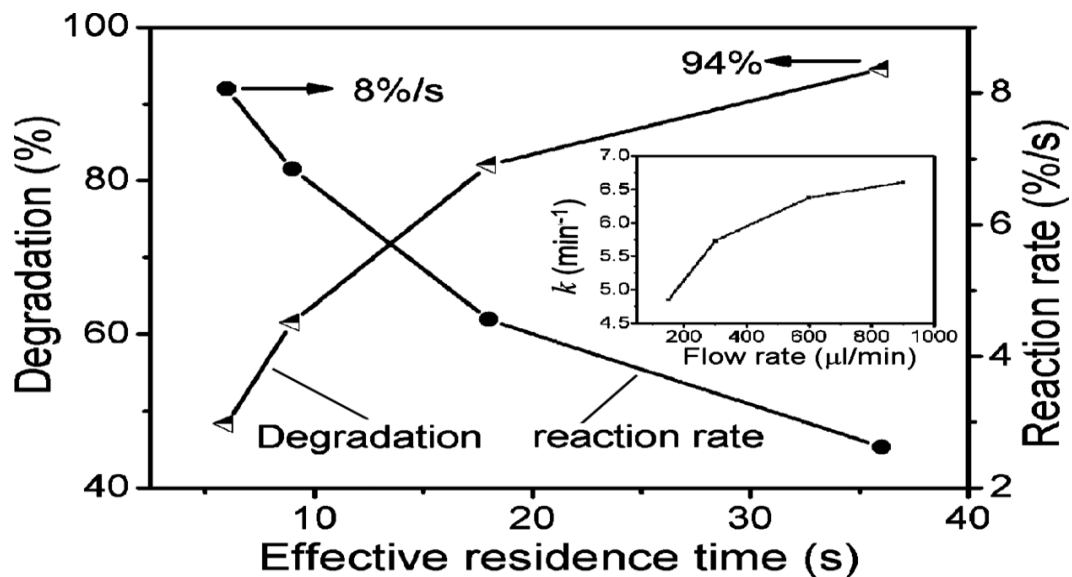


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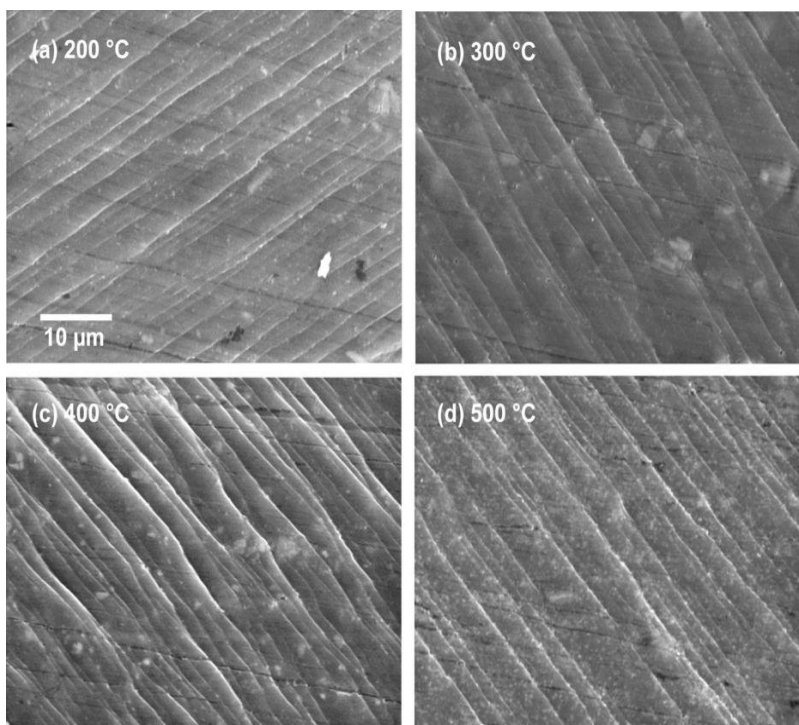


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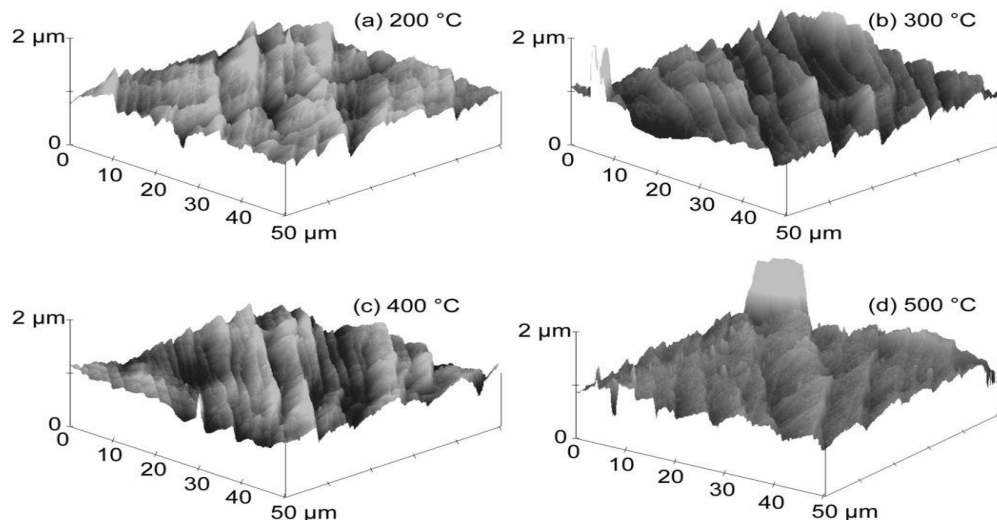


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Multimedia files can be included in the online version of published papers. All such files are peer reviewed. When published, these files can be viewed by clicking on a link from the figure caption, provided that the reader has a video player installed, such as Windows Media Player™, Quick Time Player™, or RealOne Player™. Please see [Author Guidelines for Multimedia Submissions](#) on the website. Please note the following important information when preparing your manuscript:

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TABLE I. Bond distances for alkene molecules (atomic units).

No. C ^a	$RI,I+1$ ^b	$SRI,I+1$ ^c	$RI-1,I+RI,I+1$	$SRI-1,I+RI,I+1$	Reference
2	2.5255	Reference 2
4	2.6175	0.123	5.306	...	Reference 3
6	2.6314	0.0999	5.3025	0.0112	Reference 4
8	2.6368	0.0876	5.3009	0,0111	Reference 5
10	2.6396	0.0795	5.2999	0.0106	Reference 6

^aC is the number of carbon atoms.

^b $RI,I+1$ is the distance between two neighboring carbon atoms, while $\langle RI,I+1 \rangle$ is the average of $RI,I+1$ for a given molecule.

^c $SRI,I+1$ is the standard deviation of $RI,I+1$ within the given molecule.

ACKNOWLEDGMENTS

Typically, standard acknowledgments include financial support and technical assistance, and may include dedications, memorials, and awards. Check with the Editorial Office for suitability of an acknowledgment if there is any question. To indicate the author, use initials. For example, “B.A. wishes to thank A. Loudon for technical assistance. C.A. wishes to thank Anytown University for use of their equipment.” Note: the Acknowledgment section is not a numbered section.

APPENDIX

Appendices are placed after the acknowledgments section and before the listing of references. Appendices must have a Level One heading as illustrated below. They do not follow the sequential heading numbering given in the rest of the paper. If there is only one appendix, then the heading is set as follows:

APPENDIX

If there is more than one appendix, the headings are set as:

APPENDIX A: DESCRIPTION

APPENDIX B: DESCRIPTION

Subheadings in an Appendix are labeled 1, 2, etc.

REFERENCES

References must be numbered consecutively in order of first appearance in the text and should be listed at the end of the text material. Reference citations in text are rendered in several ways. For example:

Voitsenya *et al.*⁴
 Kawa and Lin⁸
 MOLPRO (Ref. 10)

References within tables are designated by lowercase Roman letter superscripts and given at the end of the table. For the proper reference format, see recent issues of this journal. Preprints of cited unpublished work by the authors should be sent with the manuscript. In Press”, “To Be Published”, “Unpublished References”, “Submitted”, “in preparation” or “work in progress” is acceptable as per author’s manuscript.

¹A. Gin, Y. Wei, J. Bae, A. Hood, J. Nah, and M. Razeghi, *Thin Solid Films* 447–448, 4489 (2004); Y. B. Acharya, *J. Chem. Phys.* 132, 234506 (2010).

²K. K. Ng, *Complete Guide to Semiconductor Devices* (McGraw-Hill, New York, 1995).

³Keithley Instruments, Inc., *Model 617 Programmable Electrometer Instruction Manual*, 1984.

⁴Proceedings of the Third International Conference on Stripes and High Tc Superconductivity, Rome, 2001, edited by N.L. Saini and A. Bianconi [*Int. J. Mod. Phys. B* 14, No. 29-31 (2001)].

⁵M. Lipa, G. Frank, J. George, M. Farber, L. Carl, D French, U. Hangi, W. Excel, I. Junior, B. Kelly, S. Melon, and C. Nonna, *Final Report of EFDA Contract No. TWP2002-TW2_TPDS-Diadev-D2*, 2004 (unpublished).

⁶J. Smith, *Proc. SPIE* 124, 367 (2007).

⁷C. K. Jung, *AIP Conf. Proc.* 533, 29 (2000)

⁸V. S. Kawa and S.-J. Lin, *J. Geophys. Res.* 108(D6), 4201, doi :10.1029/2002JD02268 (2003).

⁹See supplementary material at <http://dx.doi.org/10.1063/1.3055594> for all the force fields used in this work, presented in table format.

¹⁰H.-J. Werner, P.J. Knowles, R. Lindh, F.R. Manby, M. Schütz, et al., *Molpro*, version 2006.1, a package of *ab initio* programs, 2006, see <http://www.molpro.net>.

- ¹¹See National Information Technical Service Document No. UCRL-72650 (W. P. Crowley, Lawrence Livermore National Laboratory Report No. UCRL-72650, 1970). Copies may be ordered from National Technical Information Service, Springfield, VA.
- ¹²P. Arbenz and S. Adam, in Proceedings of the International Computational Accelerator Physics Conference (ICAP), Monterey, CA, 1998, <http://www.inf.ethz.ch/~arbenz/ICAP.ps.gz>.
- ¹³See J. Fineber, S. Gross, M. Marder, and H. Swinney, Phys. Rev. Lett. 67, 457 (1992); Phys. Rev. B 45, 5146 (1992); E. Sharon, S. Gross, and J. Fineberg, Phys. Rev. Lett. 74, 5096 (1995); 76, 2117 (1996).
- ¹⁴L.I. Slepian, Dokl. Akad. Nauk SSSR 258, 561 (1981) [Sov. Phys. Dokl. 26, 538 (1981)].
- ¹⁵S.N. Dorogovtsev, J.F.F. Mendes, and A.N. Samukhin, arXiv:cond-mat/0010329 (to appear in Phys. Rev. Lett.)