

# A demonstration of the `achemso` $\text{\LaTeX}$ class

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## Abstract

This is an example document for the `achemso` document class, intended for submissions to the American Chemical Society for publication. The class is based on the standard  $\text{\LaTeX} 2_{\epsilon}$  report file, and does not seek to reproduce the appearance of a published paper.

This is an abstract for the `achemso` document class demonstration document. An abstract is only allowed for certain manuscript types. The selection of `journal` and `type` will determine if an abstract is valid. If not, the class will issue an appropriate error.

## Introduction

This is a paragraph of text to fill the introduction of the demonstration file. The demonstration file attempts to show the modifications of the standard  $\text{\LaTeX}$  macros that are implemented by the `achemso` class. These are mainly concerned with content, as opposed to appearance.

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## Results and discussion

### Outline

The document layout should follow the style of the journal concerned. Where appropriate, sections and subsections should be added in the normal way. If the class options are set correctly, warnings will be given if these should not be present.

### References

The class makes various changes to the way that references are handled. The class loads natbib, and also the appropriate bibliography style. References can be made using the normal method; the citation should be placed before any punctuation, as the class will move it if using a superscript citation style.<sup>1,2</sup> The use of natbib allows the use of the various citation commands of that package: Abernethy et al. have shown something, or in 1999. Long lists of authors will be automatically truncated in most article formats, but not in supplementary information or reviews.<sup>4</sup>

Multiple citations to be combined into a list can be given as a single citation. This uses the mciteplus package.<sup>5</sup> Citations other than the first of the list should be indicated with a star.

The class also handles notes to be added to the bibliography. These should be given in place in the document.<sup>6</sup> As with citations, the text should be placed before punctuation. A note is also generated if a citation has an optional note. This assumes that the whole work has already been cited: odd numbering will result if this is not the case.<sup>7</sup>

### Floats

New float types are automatically set up by the class file. The means graphics are included as follows (Scheme 1). As illustrated, the float is “here” if possible.

Your scheme graphic would go here: .eps format  
for L<sup>A</sup>T<sub>E</sub>X or .pdf (or .png) for pdfL<sup>A</sup>T<sub>E</sub>X  
CHEMDRAW files are best saved as .eps files;  
these can be scaled without loss of quality, and can be  
converted to .pdf files easily using eps2pdf.

Scheme 1: An example scheme

## Math(s)

The achemso class does not load any particular additional support for mathematics. If the author *needs* things like amsmath, they should be loaded in the preamble. However, the basics should work fine. Some inline material  $y = mx + c$  followed by some display.

$$A = \pi r^2$$

## Experimental

The usual experimental details should appear here. This could include a table, which can be referenced as Table 1. Notice that the caption is positioned at the top of the table. Do not worry about the appearance of the table: this will be altered during production.

Table 1: An example table

| Header one  | Header two  |
|-------------|-------------|
| Entry one   | Entry two   |
| Entry three | Entry four  |
| Entry five  | Entry five  |
| Entry seven | Entry eight |

The example file also loads the mhchem package, so that formulas are easy to input: `\ce{H2SO4}` gives H<sub>2</sub>SO<sub>4</sub>. See the use in the bibliography file (when using titles in the references section).

The use of new commands should be limited to simple things which will not interfere with the production process. For example, `\mycommand` has been defined in this example, to give italic, monospaced text: *some text*.

## Acknowledgement

Thanks to Mats Dahlgren for version one of `achemso`, and Donald Arseneau for the code taken from `cite` to move citations after punctuation.

## Supporting Information Available

The entire `achemso` bundle is generated by running `achemso.dtx` through  $\text{\TeX}$ . Running  $\text{\LaTeX}$  on the same file will generate the general documentation for both the class and package files.

## Notes and References

- (1) Abarca, A.; Gómez-Sal, P.; Martín, A.; Mena, M.; Poblet, J. M.; Yélamos, C. *Inorg. Chem.* **2000**, *39*, 642–651.
- (2) Abernethy, C. D.; Codd, G. M.; Spicer, M. D.; Taylor, M. K. *J. Am. Chem. Soc.* **2003**, *125*, 1128–1129.
- (3) Cotton, F. A.; Wilkinson, G.; Murillio, C. A.; Bochmann, M. *Advanced Inorganic Chemistry*, 6th ed.; Wiley: Chichester, 1999.
- (4) Frisch, M. J. et al. Gaussian 03. Gaussian, Inc.: Wallingford, CT, 2004.
- (5) (a) Arduengo, A. J., III; Dias, H. V. R.; Harlow, R. L.; Kline, M. *J. Am. Chem. Soc.* **1992**, *114*, 5530–5534; (b) Appelhans, L. N.; Zuccaccia, D.; Kovacevic, A.; Chianese, A. R.; Miecznikowski, J. R.; Macchioni, A.; Clot, E.; Eisenstein, O.; Crabtree, R. H. *J. Am. Chem. Soc.* **2005**, *127*, 16299–16311; (c) Arduengo, A. J., III; Gamper, S. F.; Calabrese, J. C.; Davidson, F. *J. Am. Chem. Soc.* **1994**, *116*, 4391–4394.
- (6) This is a note. The text will be moved the the references section. The title of the section will change to “Notes and References”.
- (7) Ref. 3, p. 1.

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