A demonstration of the achemso 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 LaTeX 2_ε `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 `manuscript` 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 LaTeX macros that are implemented by the `achemso` class. These are mainly concerned with content, as opposed to appearance.[?]

[†]A footnote for the title

Materials and Methods

Results and discussion

Conclusion

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.**?** **?** **?** **?** The use of **natbib** allows the use of the various citation commands of that package: **?** have shown something, in **?**, or as given by Ref. **?** . Long lists of authors will be automatically truncated in most article formats, but not in supplementary information or reviews.**?** If you encounter problems with the citation macros, please check that your copy of **natbib** is up to date. The demonstration database file `achemso-demo.bib` shows how to complete entries correctly. Notice that "et al." is auto-formatted using the `\latin` command.

Multiple citations to be combined into a list can be given as a single citation. This uses the **mciteplus** package.**?** Citations other than the first of the list should be indicated with a star. If the **mciteplus** package is not installed, the standard bibliography tools will still work but starred references will be ignored. Individual references can be referred to using `\mciteSubRef`: "ref. **??**".

The class also handles notes to be added to the bibliography. These should be given in place in the document.**?** 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.**?**

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 LaTeX or `.pdf` (or `.png`) for pdfLaTeX
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`.
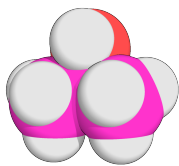
Scheme 1: An example scheme

Figure 1: An example figure

Math(s)

The `achemso` class does not load any particular additional support for mathematics. If packages such as `amsmath` are required, they should be loaded in the preamble. However, the basic LaTeX math(s) input should work correctly without this. Some inline material $y = mx + c$ or $1 + 1 = 2$ followed by some display.

$$A = \pi r^2$$

It is possible to label equations in the usual way (Eq. 1).

$$\frac{\mathrm{d}}{\mathrm{d}x} r^2 = 2r \tag{1}$$

This can also be used to have equations containing graphical content. To align the equation

number with the middle of the graphic, rather than the bottom, a minipage may be used.

$$As \text{ illustrated here, the width of}$$
$$the \text{ minipage needs to allow some} \qquad (2)$$
$$space \text{ for the number to fit in to.}$$

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.

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

Adding notes to tables can be complicated. Perhaps the easiest method is to generate these using the basic \textsuperscript and \emph macros, as illustrated (Table 2).

Table 2: A table with notes

Header one	Header two
Entry one[a]	Entry two
Entry three[b]	Entry four

[a] Some text; [b] Some more text.

The example file also loads the optional mhchem package, so that formulas are easy to input: \ce{H2SO4} gives H_2SO_4. 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, mono-spaced text: *some text*.

Acknowledgement

Supporting Information Available

This will usually read something like: "Experimental procedures and characterization data for all new compounds. The class will automatically add a sentence pointing to the information on-line:

TOC Graphic

Some journals require a graphical entry for the Table of Contents. This should be laid out "print ready" so that the sizing of the text is correct.

Inside the `tocentry` environment, the font used is Helvetica 8 pt, as required by *Journal of the American Chemical Society*.

The surrounding frame is 9 cm by 3.5 cm, which is the maximum permitted for *Journal of the American Chemical Society* graphical table of content entries. The box will not resize if the content is too big: instead it will overflow the edge of the box.

This box and the associated title will always be printed on a separate page at the end of the document.