rsc — BibTeX styles for Royal Society of Chemistry and Wiley journals[*]

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Abstract

The rsc package provides BibTeX style files to produce bibliographies in accordance with the guidelines of the Royal Society of Chemistry and Wiley chemistry-related journals. The styles require the use of natbib. In addition, a short LaTeX package is included; this provides a convenient user interface to the customisation hooks made available by the BibTeX styles.

Contents

1 Introduction

Although synthetic chemists do not, in the main, use LaTeX for the preparation of journal articles, it would be nice to be able to use it for reports. The package achemso provides for a BibTeX style and other support for reports in the style of the American Chemical Society. The aim of the rsc package is to provide similar support for the style favoured by the Royal Society of Chemistry. The package also provides support for the style used in Wiley-published journals.

As of version 3, this bundle requires natbib; the package mciteplus is also supported but not required. These two packages make creating bibliographies much easier for chemists.

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2   Installation

The entire bundle is supplied with the TDS-ready ZIP file, `rsc.tds.zip`. Simply unzip this into your local texmf tree and run your hash program (`texhash` for TeXLive or `initextmf -u` for MiKTeX).

   To extract the bundle of files from `rsc.dtx`, run (pdf)TeX on `rsc.dtx`. This will produce all of the package files, and also `README.txt`. To extract the files and build the documentation, run (pdf)LaTeX on `rsc.dtx`. The files can then be installed as above.

3   Using the styles

The styles are used in the normal way for BibTeX styles, as the argument to the `\bibliographystyle` macro. As natbib is required, it must of course be loaded. Citations can then be given as normal:

```
Some standard citations
  \cite{Abernethy2003,Cotton1999}.
Some \textsf{natbib}-specific features:
  \citet{Abernethy2003} have said something,
  as reported by \citeauthor{Cotton1999},
  in \citeyear{Abernethy2003}.
```
Some standard citations.[1,2] Some natbib-specific features: Abernethy *et al.*[1] have said something, as reported by Cotton *et al.*, in 2003.

   If the mciteplus package is available, multiple citations can be combined into a single list:

```
A multiple citation
  \cite{Arduengo1992,*Arduengo1994}.\\
```
A multiple citation.[3]

   To make life slightly easier for the user, a small LaTeX package accompanies the BibTeX files. It automatically loads the support packages, and handles customisation (see the next section).

```
\documentclass{article}
\usepackage{rsc}
\begin{document}
% Document body here
\bibliographystyle{rsc} % or angew
\bibliography{your-bibtex-database}
\end{document}
```

4   Customising the styles: the LaTeX package

Both of the styles provide a small number of control hooks to modify the output behaviour. These can be altered directly, using a mechanism similar to that used by IEEEtrans. However, for most users, this is overly complex. A short LaTeX package is therefore provided, which provides high-level access to the customisation.

<dl>
<dt>maxnames</dt>
<dt>usetitle</dt>
<dt>usedoi</dt>
<dt>linkdoi</dt>
</dl>

The maxnames option sets whether and when a long list of authors is truncated, and takes an integer value. Giving the value 0 means that no truncation occurs, otherwise the list is truncated if the number of names exceeds the given value. The usetitle and usedoi options are simple Boolean switches. The usetitle option sets whether to include the titles of journal articles in the bibliography. The default is false; the only RSC journal using article titles is *Photochemical & Photobiological Sciences*. The usedoi option forces the use of DOI information in cases where it would not normally be present (for example journal articles with page ranges available). This is intended to make it easier for readers to find journal information. The related linkdoi option will include a hyperlink for each DOI, so that the DOI can be clicked on to resolve the original reference.

<dl><dt>super</dt></dl>

The super Boolean option turns on superscript citations, and is true by default. It also causes the natmove package to be loaded if available (natmove is part of the achemso bundle). This ensures that citations appear *after* punctuation even if given before in the text. This documentation has been compiled using natmove: see the input of the example citations in the previous section.

<dl><dt>mciteplus</dt></dl>

The RSC package normally loads the support package mciteplus. This can be controlled using the mciteplus option: loading rsc with mciteplus=false will skip loading mciteplus.

5 Demonstration file

This bundle includes the demonstration file `rsc-demo.tex`. The file shows how to create a submission to the RSC, using only standard LaTeX tools. Note that the demonstration does *not* aim to look like a published paper: this is not required for submission. The demonstration file should be installed in the `doc/latex/rsc` directory.

6 Implementation

<dl>
<dt>\ifrsc@super</dt>
<dt>\ifrsc@usetitle</dt>
<dt>\ifrsc@usedoi</dt>
<dt>\ifrsc@linkdoi</dt>
<dt>\ifrsc@mciteplus</dt>
<dt>\rsc@maxauthors</dt>
</dl>

To make life easier for the user, the control values for the bibliography are converted into LaTeX package options using kvoptions.

```
1 ⟨*package⟩
2 \RequirePackage{kvoptions}
3 \SetupKeyvalOptions{
4   family = rsc,
5   prefix = rsc@
6 }
7 \DeclareBoolOption{linkdoi}
8 \DeclareBoolOption{mciteplus}
9 \DeclareBoolOption{super}
10 \DeclareBoolOption{usetitle}
11 \DeclareBoolOption{usedoi}
12 \DeclareStringOption{maxauthors}
13 \setkeys{rsc}{
14   linkdoi    = false,
15   mciteplus  = true,
16   maxauthors = 0,
17   usetitle   = false,
```

```
18  usedoi    = false,
19  super     = true
20 }
21 \ProcessKeyvalOptions{rsc}
```

Citation support is loaded.

```
22 \ifrsc@super
23   \RequirePackage[sort&compress,numbers,super]{natbib}
24   \IfFileExists{natmove.sty}{%
25     \RequirePackage{natmove}}{}
26 \else
27   \RequirePackage[sort&compress,numbers]{natbib}
28 \fi
```

\rsc@bib@file Some information or creating the control file for BibTeX is set up.
\rsc@bib@message
\rsc@bib@name
```
29 \newwrite\rsc@bib@file
30 \newcommand*{\rsc@bib@message}{%
31   This is an auxiliary file used by the 'rsc' package.^^J%
32   This file may safely be deleted. It will be recreated as
33   required.^^J
34 }
35 \newcommand*{\rsc@bib@name}{rsc-\jobname.bib}
```

\rsc@bib@write The control information for BibTeX needs to be written to a special file. The main
\rsc@bib@write@aux writing macro is quite simple. Actually writing the information is left to the code
for \bibliography, so that this only happens if needed.

```
36 \newcommand*{\rsc@bib@write}{%
37   \if@filesw
38     \expandafter\rsc@bib@write@aux
39   \fi
40 }
41 \AtBeginDocument{\rsc@bib@write}
42 \newcommand*{\rsc@bib@write@aux}{%
43   \immediate\openout\rsc@bib@file\rsc@bib@name\relax
44   \immediate\write\rsc@bib@file{\rsc@bib@message}%
45   \edef\@tempa##1##2{%
46     \space\space##1\space = \space"##2",^^J%
47   }%
48   \immediate\write\rsc@bib@file{%
49     @Control\string{%
50       rsc-control,^^J%
51       \@tempa{ctrl-use-title}{%
52         \ifrsc@usetitle yes\else no\fi
53       }%
54       \@tempa{ctrl-use-doi-all}{%
55         \ifrsc@usedoi yes\else no\fi
56       }%
57       \@tempa{ctrl-link-doi}{%
58         \ifrsc@linkdoi yes\else no\fi
59       }%
60       \@tempa{ctrl-etal-number}{\rsc@maxauthors}%
61     \string}^^J%
62   }%
63   \immediate\write\@auxout{%
```

4

```
64      \string\citation\string{rsc-control\string}%
65    }%
66    \AtEndDocument{%
67      \immediate\closeout\rsc@bib@file\relax
68    }%
69 }
```

The mciteplus package allows the construction of lists of references with sub-letters. However, it might not be available, and so it is only loaded if available: the .bst files should work either way.

```
70 \IfFileExists{mciteplus.sty}{%
71    \ifrsc@mciteplus
72      \RequirePackage{mciteplus}
73    \fi
74 }{}
```

\rsc@bibliography
\bibliography The \bibliography macro is now patched so that everything works correctly.

```
75 \AtBeginDocument{%
76    \let\rsc@bibliography\bibliography
77    \renewcommand*{\bibliography}[1]{%
78      \rsc@bibliography{rsc-\jobname,#1}%
79    }%
80 }
81 ⟨/package⟩
```

7   Change History

8   Index

Numbers written in italic refer to the page where the corresponding entry is described; numbers underlined refer to the code line of the definition; numbers in roman refer to the code lines where the entry is used.

5

9 References

[1] C. D. Abernethy, G. M. Codd, M. D. Spicer and M. K. Taylor, *J. Am. Chem. Soc.*, 2003, **125**, 1128–1129, DOI: 10.1021/ja0276321.

[2] F. A. Cotton, G. Wilkinson, C. A. Murillio and M. Bochmann, *Advanced Inorganic Chemistry*, Wiley, Chichester, 6th edn., 1999.

[3] (*a*) A. J. Arduengo, III, H. V. R. Dias, R. L. Harlow and M. Kline, *J. Am. Chem. Soc.*, 1992, **114**, 5530–5534, DOI: 10.1021/ja00040a007; (*b*) A. J. Arduengo, III, S. F. Gamper, J. C. Calabrese and F. Davidson, *J. Am. Chem. Soc.*, 1994, **116**, 4391–4394, DOI: 10.1021/ja00089a029.