

achemso — Support for submissions to American Chemical Society journals*

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Abstract

The `achemso` bundle provides a \LaTeX class file and \BibTeX style file in accordance with the requirements of the American Chemical Society (ACS). The files can be used for any documents, but have been carefully designed and tested to be suitable for submission to ACS journals.

The bundle also includes the `natmove` package. This package is loaded by `achemso`, and provides automatic moving of superscript citations after punctuation.

Contents		6 The \BibTeX style files	7
1 Introduction	1	7 The <code>natmove</code> package	8
2 Installation	2	8 Implementation	8
3 Requirements	2	8.1 Early class-only code . . .	9
4 The class file	3	8.2 Early package-only code	9
4.1 Class options	3	8.3 Common code	9
4.2 Manuscript meta-data .	4	8.4 Late class-only code . .	16
4.3 Floats	5	8.5 Late shared code	40
4.4 Section headers	5	8.6 Late package-only code	41
4.5 Special sections	5	8.7 Moving citations with <code>natbib</code>	41
4.6 Miscellaneous commands	6	8.8 The configuration files .	44
5 The package file	6	9 Index	59
5.1 Package options	6	10 References	68
5.2 Bibliography notes . . .	7		

1 Introduction

Support for \BibTeX bibliography following the requirements of the American Chemical Society (ACS), along with a package to make these easy to have been

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available since version one of `achemso`. The re-write from version 1 to version 2 made a number of improvements to the package, and also added a number of new features. However, neither version one nor version two of the package was targeted directly at use for submissions to ACS journals. This new release of `achemso` addresses this issue.

The bundle consists of four parts. The first is a $\text{\LaTeX} 2_{\epsilon}$ class, intended for use in submissions. It is based on the standard article class, but makes various changes to facilitate ease of use. The second part is the \LaTeX package. The package contains the parts of the bundle which are appropriate for use with other document classes.¹ Thirdly, two \BibTeX style files are included. These are used by both the class and the package, but can be used directly if desired. Finally, an example document is included; this is intended to act a potential template for submission, and illustrates the use of the class file.

2 Installation

The package is supplied in `dtx` format and as a pre-extracted zip file, `achemso.tds.zip`. The later is most convenient for most users: simply unzip this in your local `texmf` directory and run `texhash` to update the database of file locations. If you want to unpack the `dtx` yourself, running `tex achemso.dtx` will extract the package whereas `latex achemso.dtx` will extract it and also typeset the documentation.

Typesetting the documentation requires a number of packages in addition to those needed to use the package. This is mainly because of the number of demonstration items included in the text. To compile the documentation without error, you will need the packages:

- `array`
- `booktabs`
- `hypdoc`
- `listings`
- `lmodern`
- `mathpazo`
- `microtype`

3 Requirements

The `achemso` class requires the following packages:

- `caption`
- `float`
- `geometry`

¹For example, when writing a thesis.

- natbib
- setspace
- xkeyval

These are normally present in the current major T_EX distributions, but are also available from [The Comprehensive T_EX Archive Network](#).

4 The class file

The class file has been designed for use in submitting journals to the ACS. It uses all of the modifications described here (those in the package as well as those in the class). The accompanying example manuscript can be used as a template for the correct use of the class file. It is intended to act as a model for submission.

When submitting communications to *J. Am. Chem. Soc.*, the class will automatically lay the document out in the publication style. This allows the author to judge the length of text submitted more accurately. Changing the manuscript in the demonstration document to `communication` will illustrate the effect.

4.1 Class options

- `journal` (*env.*) The class supports a limited number of options, which are specifically-targeted at submission. The class uses the `keyval` system for options, in the form `key=value`. The most important option is `journal`. This is an identifier for the target journal: from <https://pubs.acs.org/>, the identifier is the part of the URL after `https://pubs.acs.org/journal/`, e.g. for *J. Org. Chem.* it would be `joceah`. If an unknown journal is specified, the package will fall-back on the `journal=jacsat` option.
- `manuscript` (*env.*) The second option is the `manuscript` option. This specifies the type of paper in the manuscript. The values here are `article`, `note`, `communication`, `review`, `letter` and `perspective`. The valid values will depend on the value of `journal`. The `manuscript` option determines whether sections and an abstract are valid. The value `suppinfo` is also available for supporting information.
- `layout` (*env.*) The `achemso` class can produce drafts in two layout styles. The standard setting for the `layout` option is `traditional`, which produces a double-spaced single column manuscript. The alternative setting `twocolumn` will use single spacing and print the text in two columns. The second option is obviously more compact. If the journal requires a particular style this option may be ignored.
- `email` (*env.*) It may be desirable to omit e-mail addresses from the front page of a manuscript. The printing of e-mail addresses can be disabled using the `email` option, which takes Boolean values only. The default is to print e-mail addresses. Notice that phone and fax numbers are only printed if e-mail addresses are printed.

Other options are provided by the package, but when used with the class these are silently ignored. If you need to override the settings chosen by the class, include the settings *after* the `\documentclass` line using `\setkeys`:

```
\documentclass[journal = jacsat]{achemso}
\setkeys{acs}{articletitle = false}
```

4.2 Manuscript meta-data

`\author` Inspired by REVTeX, the `achemso` class alters the method for adding author information to the manuscript. Each author should be given as a separate `\author` command. These should be followed by an `\affiliation`, which applies to the preceding authors. The `\affiliation` macro takes an optional argument, for a short version of the affiliation.² At least one author should be followed by an `\email` macro, containing contact details. All authors with an e-mail address are automatically marked with a star. The example manuscript demonstrates the use of all of these macros. Notice that `\alsoaffiliation` is used when one (or more) authors work at multiple institutions, while `\altaffiliation` is intended for previous addresses (or other notes). Only `\affiliation` applies to multiple authors: both `\alsoaffiliation` and `\altaffiliation` are set on a per author basis.

```
\author{Author Person}
\author{Second Bloke}
\email{second.bloke@some.place}
\affiliation[University of Sometown]
  {University of Somewhere, Sometown, USA}
\altaffiliation
  {Previous address: Minute University, Nowhereville, USA}
\author{Indus Trialguy}
\email{i.trialguy@sponsor.co}
\affiliation[SponsoCo]
  {Research Department, SponsorCo, BigCity, USA}
\alsoaffiliation{University of Somewhere, Sometown, USA}
```

Repeated entries for `\affiliation` and `\alsoaffiliation` will result in only one address being printed in the address list and footnotes. Repeated `\altaffiliation` entries only produce a single footnote, and can therefore be used for entries such as

```
\author{First Coworker}
\altaffiliation{Contributed equally to this work}
\author{Second Coworker}
\altaffiliation{Contributed equally to this work}
```

if required.

`\fax` The class will recognise the optional information `\fax` and `\phone`, which will be printed along with the lead authors e-mail address. Note that this information is only used for authors who have an e-mail address supplied.

```
\author{Second Bloke}
\email{second.bloke@some.place}
\phone{+xxx (0)yyy zzzzzz}
\fax{+xxx (0)yyy wwwwww}
\affiliation[University of Sometown]
  {University of Somewhere, Sometown, USA}
```

`\and` The method used for setting the meta-data means that the normal `\and` and `\thanks` macros are not appropriate in the `pkgachemso` class. Both produce a warning if used.

`\title` The `\title` macro is extended to accept an optional argument. This is

²This will usually be the university or company name.

intended for a shortened version of the journal title suitable for running headers. Some journals require that authors supply this data: if it is needed then it will be printed in the appropriate place.

```
\title[Short running title]
      {Long title which would not fit in running headers}
```

The meta-data items should be given in the preamble to the L^AT_EX file, and no `\maketitle` macro is required in the document body. This is all handled by the class file directly. At least one author, affiliation and e-mail address must be specified.

4.3 Floats

`scheme` (*env.*) The class defines three new floating environments: `scheme`, `chart` and `graph`.
`chart` (*env.*) These can be used as expected to include graphical content. The placement of
`graph` (*env.*) these new floats and the standard `table` and `figure` floats is altered to be “here” if possible. The contents of all floats is automatically horizontally centred on the page.

4.4 Section headers

```
\SectionNumbersOff Some journals have no section numbering by default. This can be set up in
\SectionNumbersOn the appropriate configuration file, but it may be that individual users need to
                    change the decision. The macros \SectionNumbersOff and \SectionNumbersOn
                    are therefore available: these should be given in the preamble.
\SectionsOff       More radically, the entire availability of sections can be turned on and of. This
\SectionsOn       is functionality is available to the user via the \SectionsOn and \SectionsOff
\AbstractOff      macros, which again are preamble-only. Similar functions are available for the
\AbstractOn       abstract: \AbstractOff and \AbstractOn.
```

4.5 Special sections

`acknowledgement` (*env.*) The sections for acknowledgements and supporting information have dedicated
`suppinfo` (*env.*) environments available. These ensure that the section headings are generated,
and that the text is sized corrected when using creating a Communication.

```
\begin{acknowledgement}
  The authors thank A.N.-Other.
\end{acknowledgement}

\begin{suppinfo}
  Full characterization data for all new compounds.
\end{suppinfo}
```

`tocentry` (*env.*) For generating an entry for the graphical table of content, required by some journals, the environment `tocentry` is available. This prints its content in an appropriately sized box on a separate page. In contrast to the rest of the manuscript, this section is intended to be “print ready” in appearance.

```
\begin{tocentry}
  \includegraphics{toc-entry-graphic}
  Some text to explain the graphic.
\end{tocentry}
```

4.6 Miscellaneous commands

`\latin`

The command `\latin` is provided by the class to format Latin phrases such as “et al.” Most ACS journals do not make these italic, but some (for example ACS *Nano*) do. By providing a command, the formatting is left flexible.

`\doi`

The bibliography style prints any DOI values as the argument to the command `\doi`. The default definition will allow printing of special characters but does not create hyperlinks. A more sophisticated version of the command may be set up if `hyperref` is loaded, for example

```
\begin{tocentry}
  \newcommand{\doi}[1]{\href{http://dx.doi.org/#1}{\nolinkurl{#1}}}
\end{tocentry}
```

5 The package file

The `achemso` package is independent of the class file, and contains parts of the bundle useful outside of submission to the ACS.

5.1 Package options

As with the class options, the package uses the key–value method for option set up. These are used to control the output of citations and bibliographic data. The same options are used when creating journal configurations for the class: this is a task most users will not need to undertake!

`super` (*env.*) The `super` option affects the handling of superscript reference markers. The option switches this behaviour on and off (and takes Boolean values: `super=true` and `super=false` are valid).

`articletitle` (*env.*) The `articletitle` option is a Boolean, and sets whether the title of a paper referenced appears in the bibliography. The default is `articletitle=true`.

`doi` (*env.*) The boolean `doi` option is provided to allow a DOI (Digital Object Identifier) to be included for bibliography entries even where other identification such as page numbers is available. The standard setting is `false`: setting it to `true` will cause DOI numbers to be printed if available.

`chaptertitle` (*env.*) The boolean `chaptertitle` option is provided to allow flexibility for the inclusion of chapter titles for book and related entries. The standard setting is `false`: setting it to `true` will cause chapter titles to be included.

`etalmode` (*env.*)
`maxauthors` (*env.*) Many journals require that long lists of authors are shortened using ‘et al.’ in the references section. The behaviour of the `BIBTEX` styles in this regard is controlled by two options, `etalmode` and `maxauthors`. There are two possible ways to shorten a long list of authors. Some journals require that only the first author is given, followed by ‘et al.’: for this behaviour, set `etalmode=firstonly`:

Jones, A.N. et al.

On the other hand, some journals request that the list of authors is truncated after n authors. This is set up by the `etalmode=truncate` option:

Jones, A.N.; Bloggs, F.; Nobacon, D. et al.

In both cases, the maximum number of authors permitted before introducing ‘et al.’ is governed by the `maxauthors` option. This option recognises the sentinel value 0, which indicates that no shortening should occur at all.

`biblabel` (*env.*) Redefining the formatting of the numbers used in the bibliography usually requires modifying internal L^AT_EX macros. The `biblabel` option makes these changes more accessible: valid values are `plain` (use the number only), `brackets` (surround the number in brackets) and `period` or `fullstop` (follow the number by a full stop/period).

`biochem` (*env.*)
`biochemistry` (*env.*) Most ACS journals use the same bibliography style, with the only variation being the inclusion of article titles. However, a small number of journals use a rather different style; the journal *Biochemistry* is probably the most prominent. The `biochemistry` or `biochem` option uses the style of *Biochemistry* for the bibliography, rather than the normal ACS style.

5.2 Bibliography notes

`\bibnote` `achemso` provides the `\bibnote` macro. This is intended for addition of notes to the bibliography (references). The macro accepts a single argument, which is transferred to the bibliography by Bib_T_EX. In analogy to `\footnote`, the macros `\bibnotemark` and `\bibnotetext` are available for dividing up the marker for a note from the text.

```
Some text \bibnote{This note text will be in the bibliography}.  
Some text.1
```

The functionality for bibnotes in `achemso` is based on that in the `notes2bib` package. The `notes2bib` package can be loaded with the `achemso` package, and no clash will occur. With the class file, `notes2bib` will be ignored if requested, to prevent issues on submission to the ACS.

6 The Bib_T_EX style files

`achemso` is supplied with two style files, `achemso.bst` and `biochem.bst`. The direct use of these without the `achemso` package file is not recommended, but is possible. The style files can be loaded in the usual way, with a `\bibliographystyle` command. The `natbib` package must be loaded by the L^AT_EX file concerned, if the `achemso` package is not in use.

The style files are designed to use the `mciteplus` package if it is available, but to work even if it is not. When `mciteplus` is present, it is possible to automatically produce references of the form

(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.

as demonstrated in the example document. When `mciteplus` is not present, this functionality is not available but the style files will work normally.

The BibTeX style files implement the bibliographic style specified by the ACS in *The ACS Style Guide*.² By default, article titles are not included in output using the `achemso.bst` file, but are with the `biochem.bst` file.

The style used by the ACS does not differentiate between BibTeX `book`, `inbook`, `collection` and `incollection` entries. As a result, the appearance of these entry types depends on the fields available. Named subdivisions of a book (for example, chapters where each has a named author) should be given in the `title` field, with the title of the book itself in the `booktitle` field. The `chapter` field should be used for a chapter number, and is printed as part of the pagination.

One frequently asked question is why some people see an empty first item in their bibliography when using the `achemso` package or class. This is usually because they have downloaded the LaTeX files and done a local installation without also updating the BibTeX style. The two must be from the same version of `achemso`: they are designed to work together.

7 The natmove package

The `natmove` package does only one job. It brings the ability to move punctuation after citations, using code borrowed from the `cite` package. Both the `achemso` class and package load `natmove` automatically.

```
Some text \cite{Coghill2006} some more text.\
Some text ending a sentence \cite{Coghill2006}.\
Some text2 some more text.\
Some text ending a sentence.2
```

This is deactivated for other citation types.

```
Some text \citeyear{Coghill2006}.\
Some text \citeauthor{Coghill2006}.\
Some text \citenum{Coghill2006}.\
Some text 2006.\
Some text Coghill and Garson.\
Some text 2.
```

The package does nothing if the `super` option has not been given to `natbib`. This means that the source can be written without needing to decide where citations will appear, with the `super` option for `natbib` controlling the result.

`\natmovechars` One user macro is provided: `\natmovechars`. This contains the characters which are moved before superscript punctuation. The default contents is `,;:.` and can be set using `\renewcommand*`:

```
Some text2, more text.2 \renewcommand*\natmovechars{.}
Some text \cite{Coghill2006},
more text \cite{Coghill2006}.
```

8 Implementation

A lot of the work done by the package is also needed by the class. Loading the package and the class makes load-order awkward. Instead, the two parts are done in one place. Sandwiching the common code are two slices of dedicated

material for the class and the package. Some of this is needed “early”, before the common material, whilst the rest is “late”.

8.1 Early class-only code

So that there is no confusion, the base class is loaded early.

```
1 <*class>
2 \ProvidesClass{achemso}
3 [2025-04-11 v3.13j Submission to ACS journals]
4 \LoadClass[12pt,letter]{article}
```

`\acs@warning` The code for a warning is created so that it works for the package too.

```
5 \newcommand*\acs@warning{\ClassWarning{achemso}}
6 </class>
```

8.2 Early package-only code

The package and the class should not both be loaded, as the two use the same internal macro names. On the other hand, if the class is not in use a reminder is printed to use it if possible.

```
7 <*package>
8 \ProvidesPackage{achemso}
9 [2025-04-11 v3.13j Support for ACS journals]
10 \ifclassloaded{achemso}{%
11   \PackageInfo{achemso}{%
12     You have already loaded the ‘achemso’ class:\MessageBreak
13     loading the package will abort%
14   }%
15 \endinput
16 }{%
17   \PackageInfo{achemso}{%
18     When writing a submission to an ACS journal, please\MessageBreak
19     use the achemso document class%
20   }%
21 }
```

`\acs@warning` The code for a warning is created so that it works for the class too.

```
22 \newcommand*\acs@warning{\PackageWarning{achemso}}
23 </package>
```

8.3 Common code

`\acs@ifundefined` A non-expandable test for defined macros: does not add to the hash table.

```
24 <*package | class>
25 \newcommand*\acs@ifundefined[1]{%
26   \begingroup\expandafter\expandafter\expandafter\endgroup
27   \expandafter\ifx\csname #1\endcsname\relax
28   \expandafter\@firstoftwo
29   \else
30   \expandafter\@secondoftwo
31   \fi
32 }
```

The first stage needed is to read the package options given. Although xkeyval was perhaps not the best choice, changing this now would be rather risky.

```
33 \RequirePackage{xkeyval}
```

`\acs@keyval@bool` A support macro for making Boolean options: the xkeyval version is only available in newer releases.

```
34 \newcommand*\acs@keyval@bool[2]{%
35   \acs@ifundefined{acs@#1#2}{%
36     \acs@warning{Unknown option ‘#2’ for key #1}%
37   }{%
38     \@nameuse{acs@#1#2}%
39   }%
40 }
```

`\ifacs@abbreviations` These are all very trivial definitions: to avoid issues with older versions of xkeyval each definition is done directly.

```

\ifacs@biochem 41 \newif\ifacs@abbreviations
\ifacs@articletitle 42 \newif\ifacs@articletitle
  \ifacs@doi 43 \newif\ifacs@biochem
  \ifacs@email 44 \newif\ifacs@doi
\ifacs@hyperref 45 \newif\ifacs@chaptertitle
\ifacs@keywords 46 \newif\ifacs@email
  \ifacs@super 47 \newif\ifacs@hyperref
48 \newif\ifacs@keywords
49 \newif\ifacs@super
50 \define@key{acs}{abbreviations}[true]{%
51   \acs@keyval@bool{abbreviations}{#1}%
52 }
53 \define@key{acs}{articletitle}[true]{%
54   \acs@keyval@bool{articletitle}{#1}%
55 }
56 \define@key{acs}{biochem}[true]{%
57   \acs@keyval@bool{biochem}{#1}%
58 }
59 \define@key{acs}{doi}[true]{%
60   \acs@keyval@bool{doi}{#1}%
61 }
62 \define@key{acs}{chaptertitle}[true]{%
63   \acs@keyval@bool{chaptertitle}{#1}%
64 }
65 \define@key{acs}{email}[true]{%
66   \acs@keyval@bool{email}{#1}%
67 }
68 \define@key{acs}{hyperref}[true]{%
69   \acs@keyval@bool{hyperref}{#1}%
70 }
71 \define@key{acs}{keywords}[true]{%
72   \acs@keyval@bool{keywords}{#1}%
73 }
74 \define@key{acs}{super}[true]{%
75   \acs@keyval@bool{super}{#1}%
76 }
77 \define@key{acs}{usetitle}[true]{%
```

```
78 \acs@keyval@bool{articletitle}{#1}%
79 }
```

\acs@journal Trivial again: done without using xkeyval for the same reasons as before.

```
\acs@layout 80 \newcommand*\acs@journal{jacsat}
\acs@manuscript 81 \newcommand*\acs@layout{traditional}
\acs@maxauthors 82 \newcommand*\acs@manuscript{article}
83 \newcommand*\acs@maxauthors{15}
84 \define@key{acs}{journal}{%
85 \def\acs@journal{#1}%
86 }
87 \define@key{acs}{layout}{%
88 \def\acs@layout{#1}%
89 }
90 \define@key{acs}{manuscript}{%
91 \def\acs@manuscript{#1}%
92 }
93 \define@key{acs}{maxauthors}{%
94 \def\acs@maxauthors{#1}%
95 }
```

\ifacs@etal@truncate The setup for the etalmode option is quite simple: just look for the appropriate macros.

```
\acs@etal@truncate 96 \newif\ifacs@etal@truncate
97 \define@key{acs}{etalmode}{%
98 \acs@ifundefined{acs@etal@#1}{%
99 \acs@warning{%
100 Unknown value '#1' for\MessageBreak etalmode option%
101 }%
102 }{%
103 \@nameuse{acs@etal@#1}%
104 }%
105 }
106 \newcommand*\acs@etal@firstonly{\acs@etal@truncatefalse}
107 \newcommand*\acs@etal@truncate{\acs@etal@truncatetrue}
```

\acs@activate@biblabel The biochemistry option is an alias for biochem. The biblabel option is a choice, which is implemented using a csname search. The group here prevents hash table pollution, whilst the xkeyval method is avoided as it is more complex than it is worth!

```
108 \define@key{acs}{biochemistry}{%
109 \setkeys{acs}{biochem = #1}%
110 }
111 \define@key{acs}{biblabel}{%
112 \acs@ifundefined{acs@biblabel@#1}{%
113 \acs@warning{%
114 Unknown value '#1' for\MessageBreak biblabel option%
115 }%
116 }{%
117 \acs@activate@biblabel{\@nameuse{acs@biblabel@#1}}%
118 }%
119 }
120 \newcommand*\acs@activate@biblabel{}
```

```

121 (*class)
122 \let\acs@activate@biblabel\AtEndOfClass
123 \AtEndOfClass{\let\acs@activate@biblabel\@firstofone}
124 \let\acs@activate@biblabel\@firstofone}
125 (*package)
126 \let\acs@activate@biblabel\AtEndOfPackage
127 \AtEndOfPackage{\let\acs@activate@biblabel\@firstofone}
128 \let\acs@activate@biblabel\@firstofone}

```

`\acs@biblabel@brackets` The macros to implement the idea above for biblabels.

```

\acs@biblabel@fullstop 129 \newcommand*\acs@biblabel@brackets{\def\bibnumfmt##1{##1}}
\acs@biblabel@period 130 \newcommand*\acs@biblabel@fullstop{\def\bibnumfmt##1{##1.}}
\acs@biblabel@plain 131 \newcommand*\acs@biblabel@period{\def\bibnumfmt##1{##1.}}
132 \newcommand*\acs@biblabel@plain{\def\bibnumfmt##1{##1}}

```

Set up some defaults.

```

133 \setkeys{acs}{
134   email = true,
135   super = true
136 }

```

Loading some other packages depends on the options chosen, so they are processed now.

```

137 \ProcessOptionsX*<acs>

```

`\acs@manuscript@communication` For text comparisons.

```

\acs@manuscript@letter 138 \newcommand*\acs@manuscript@communication{communication}
\acs@manuscript@note 139 \newcommand*\acs@manuscript@letter{letter}
\acs@manuscript@review 140 \newcommand*\acs@manuscript@note{note}
\acs@manuscript@suppinfo 141 \newcommand*\acs@manuscript@review{review}
142 \newcommand*\acs@manuscript@suppinfo{suppinfo}

```

`\acs@niib@create` To avoid needing to load the `notes2bib` package, especially as the plan is to move that package to L^AT_EX₃ internal syntax, `achemso` provides a minimal version `bibnote` here. The first step is to create macros which will need a guard against `notes2bib` already having been loaded. To allow the package and class to behave differently `\thebibnote` these are actually applied later.

```

\biibnotemark 143 \newcommand*\acs@niib@create{%
\biibnotetext 144   \@namedef{ver@notes2bib.sty}{%
\printbibnotes 145     2009/04/20 v1.6a Integrating notes into the bibliography (achemso
146     version)
147   }%
148   \@ifundefined{c@bibnote}{\newcounter{bibnote}}{}
149   \def\thebibnote{%
150     Note-\the\value{bibnote}%
151   }%
152   \DeclareRobustCommand*\bibnote[1][\thebibnote]{%
153     \stepcounter{bibnote}%
154     \def\acs@niib@after@text{\cite{##1}}%
155     \acs@niib@text{##1}%
156   }%
157   \DeclareRobustCommand*\biibnotemark[1][\thebibnote]{%
158     \stepcounter{bibnote}%
159     \cite{##1}%

```

```

160 }%
161 \DeclareRobustCommand*\bibnotetext}[1][\thebibnote]{%
162   \let\acs@niib@after@text\relax
163   \acs@niib@text{##1}%
164 }%
165 \newcommand*\printbibnotes{%
166   \ifnum\the\value{bibnote}>\z@\relax
167     \nocite{achemso-control}%
168     \acs@bibliography{acs-\jobname}%
169   \fi
170 }%
171 }

```

`\acs@niib@after@text` After the text.

```

172 \newcommand*\acs@niib@after@text{}

```

`\acs@niib@text` The `\acs@niib@text` macro is the outer part of the writing system. It does not absorb the text of note, as without ϵ -TeX this is bad news. The same file is used for notes and the control entry for the bibliography style.

```

173 \newcommand*\acs@niib@text{%
174   \@bsphack
175   \if@filesw
176     \expandafter\acs@niib@write
177   \else
178     \expandafter\acs@niib@no@write
179   \fi
180 }

```

`\acs@niib@write` Writing verbatim without ϵ -TeX.

```

\acs@niib@write@aux@i 181 \newcommand*\acs@niib@write[1]{%
\acs@niib@write@aux@ii 182   \begingroup
183     \let\do\@makeother
184     \dospecials
185     \catcode'\{ 1\relax
186     \catcode'\} 2\relax
187     \acs@niib@write@aux@i{##1}%
188   }
189 \newcommand*\acs@niib@write@aux@i[1]{%
190   \long\def\@tempa##1{%
191     \def\@tempa{##1}%
192     \@onelevel@sanitize\@tempa
193     \expandafter\endgroup
194     \expandafter\def\expandafter\@tempa\expandafter{\@tempa}%
195     \acs@niib@write@aux@ii{##1}%
196   }%
197   \catcode'\^^M 10\relax
198   \@tempa
199 }
200 \newcommand*\acs@niib@write@aux@ii[1]{%
201   \immediate\write\acs@bib@file{%
202     @Misc\string{##1,^^J%
203     \space\space note = \string{\@tempa\string},^^J%
204     \string}^^J%
205   }%

```

```

206 \@esphack
207 \acs@niib@after@text
208 }

```

`\acs@niib@no@write` If no files are to be written, a bit of tidying up.

```

209 \newcommand\acs@niib@no@write[2]{%
210 \@esphack
211 \acs@niib@after@text
212 }

```

`\nmv@natbib@detect` The functionality of `notes2bib` is combined with the standard `\cite` macro, to give automatic note-like data in the bibliography.

```

\acs@autonote
213 \AtBeginDocument{
214 \def\nmv@natbib@detect{%
215 \ifNAT@super
216 \expandafter\acs@nmv@activate
217 \else
218 \expandafter\acs@autonote
219 \fi
220 }
221 }
222 \newcommand*\acs@nmv@activate{%
223 \let\nmv@citex@nat\@citex
224 \let\@citex\nmv@citex
225 \let\nmv@cite\cite
226 \renewcommand*\cite}[2][{}]{%
227 \nmv@ifmtarg{##1}{%
228 \nmv@citetrue
229 \nmv@cite{##2}%
230 }{%
231 \nocite{##2}%
232 \bibnote{Ref.~\citenum{##2}, ##1}%
233 }%
234 }%
235 }
236 \newcommand*\acs@autonote{%
237 \let\nmv@cite\cite
238 \renewcommand*\cite}[2][{}]{%
239 \nmv@ifmtarg{##1}{%
240 \nmv@cite{##2}%
241 }{%
242 \nocite{##2}%
243 \bibnote{Ref.~\citenum{##2}, ##1}%
244 }%
245 }%
246 }

```

`\acs@bib@file` Some information or creating the control file for `BIBTEX` is set up.

```

\acs@bib@message
\acs@bib@name
247 \newwrite\acs@bib@file
248 \newcommand*\acs@bib@message{%
249 This is an auxiliary file used by the ‘achemso’ bundle.^^J%
250 This file may safely be deleted. It will be recreated as required.^^J
251 }
252 \newcommand*\acs@bib@name{acs-\jobname.bib}

```

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

```

253 \newcommand*\acs@bib@write{%
254   \if@filesw
255     \expandafter\acs@bib@write@aux
256   \fi
257 }
258 \AtBeginDocument{\acs@bib@write}
259 \newcommand*\acs@bib@write@aux{%
260   \immediate\openout\acs@bib@file\acs@bib@name\relax
261   \immediate\write\acs@bib@file{\acs@bib@message}%
262   \def\@tempa##1##2{%
263     \space\space##1\space = "##2",^^J%
264   }%
265   \immediate\write\acs@bib@file{%
266     @Control\string{%
267       achemso-control,^^J%
268       \@tempa{ctrl-article-title\space}{%
269         \ifacs@articletitle yes\else no\fi
270       }%
271       \@tempa{ctrl-chapter-title\space}{%
272         \ifacs@chaptertitle yes\else no\fi
273       }%
274       \@tempa{ctrl-doi\space\space\space\space\space\space\space\space
275         \space\space\space\space}{%
276         \ifacs@doi yes\else no\fi
277       }%
278       \@tempa{ctrl-etal-number\space\space\space}{\acs@maxauthors}%
279       \@tempa{ctrl-etal-firstonly}{%
280         \ifacs@etal@truncate no\else yes\fi
281       }%
282       \string}^^J%
283   }%
284   \immediate\write\@auxout{%
285     \string\citation\string{achemso-control\string}%
286   }%
287 \AtEndDocument{%
288   \immediate\closeout\acs@bib@file\relax
289 }%
290 }

```

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

```

\bibliography 291 \AtBeginDocument{%
292   \let\acs@bibliography\bibliography
293   \def\bibliography#1{%
294     \acs@bibliography{acs-\jobname,#1}%
295   }%
296 }

```

`\latin` The journal *ACS Nano* formats Latin phrases differently from every other ACS journal: we provide a `\latin` command to cover this.

```

297 \AtBeginDocument{

```

```

298 \providecommand{\latin}[1]{#1}
299 }
300 </package | class>

```

8.4 Late class-only code

Most of the power of the class is now created. First, a few options are reset so that any given by the user are effectively ignored.

```

301 (*class)
302 \setkeys{acs}{
303   abbreviations = false,
304   articletitle  = true,
305   biblabel      = brackets,
306   biochem       = false,
307   doi           = false,
308   etalmode      = firstonly,
309   keywords      = false,
310   maxauthors    = 15,
311   super        = true
312 }

```

When using the class, notes2bib is always emulated. Other standard support packages can now be loaded.

```

313 \acs@niib@create
314 \RequirePackage[margin=2.54cm]{geometry}
315 \RequirePackage{
316   caption,
317   float,
318   graphicx,
319   setspace,
320   url
321 }
322 \ifacs@hyperref
323   \expandafter\RequirePackage
324 \else
325   \expandafter\@gobble
326 \fi
327 {hyperref}
328 \AtBeginDocument{\doublespacing}

```

\title For the meta-data, the REVTeX bundle provides a good model for the commands
\@title to give the author. \gdef is used here to avoid any odd grouping issues.

```

\acs@title@short 329 \renewcommand*{\title}[2] [] {%
330   \gdef\acs@title@short{#1}%
331   \gdef\@title{#2}%
332   \ifx\acs@title@short\@empty
333     \global\let\acs@title@short\@title
334   \fi
335 }
336 \@onlypreamble\title

```

```

\acs@author@cnt achemso tracks the number authors, affiliations and alternative affiliations.
\acs@affil@cnt 337 \newcount\acs@author@cnt
\acs@affil@alt@cnt

```



```

338 \newcount\acs@affil@cnt
339 \newcount\acs@affil@alt@cnt

```

\acs@footnote@cnt Two counts for getting affiliation footnotes correct.

```

\acs@affil@marker@cnt 340 \newcount\acs@footnote@cnt
341 \newcount\acs@affil@marker@cnt

```

\author The author macro stores the current author details and sets the affiliation of the author to the current one. Everything is \global so that there is no possibility of begin trapped inside a group. The affiliation counter is always one behind, and so it is locally incremented to keep the logic of the code clear elsewhere.

```

342 \def\author#1{%
343   \global\advance\acs@author@cnt\@ne\relax
344   \expandafter\gdef\csname @author@\@roman\acs@author@cnt\endcsname{#1}%
345   \begingroup
346     \advance\acs@affil@cnt\@ne
347     \expandafter\xdef\csname @author@affil@\@roman
348       \acs@author@cnt\endcsname
349       {\the\acs@affil@cnt}%
350   \endgroup
351 }
352 \@onlypreamble\author

```

\and Neither \and nor \thanks are used by the document class.

```

\thanks 353 \def\and{%
354   \acs@warning{%
355     \string\and\space not used by the achemso class: please see
356     the\MessageBreak package documentation for details%
357   }%
358 }
359 \def\thanks{%
360   \acs@warning{%
361     \string\thanks\space not used by the achemso class: please see
362     the\MessageBreak the package documentation for details%
363   }%
364 }

```

\affiliation As with \author, everything is \global just in case. The system insists that affiliations come after authors. Before anything is committed, a check is made that the affiliation has not already been seen.

```

365 \newcommand*\affiliation[2][\relax]{%
366   \ifnum\acs@author@cnt>\z@\relax
367     \acs@affil@ifdup{#2}{%
368       \acs@affil@swap{#2}%
369     }{%
370       \global\advance\acs@affil@cnt\@ne\relax
371       \expandafter\gdef\csname @address@\@roman\acs@affil@cnt\endcsname
372         {#2}%
373       \ifx\relax#1\relax
374         \expandafter\gdef\csname @affil@\@roman\acs@affil@cnt\endcsname
375           {#2}%
376       \else
377         \expandafter\gdef\csname @affil@\@roman\acs@affil@cnt\endcsname

```

```

378         {#1}%
379     \fi
380 }%
381 \else
382     \acs@warning{Affiliation with no author}%
383 \fi
384 }
385 \@onlypreamble\affiliation

```

`\acs@affil@ifdup` A short test for two addresses being identical.

```

\acs@affil@ifdup@aux 386 \newcommand*\acs@affil@ifdup[1]{%
387     \begingroup
388     \def\@tempa{#1}%
389     \@tempswafalse
390     \@tempcnta\z@ \relax
391     \acs@affil@ifdup@aux
392     \if@tempswa
393         \aftergroup\@firstoftwo
394     \else
395         \aftergroup\@secondoftwo
396     \fi
397 \endgroup
398 }
399 \newcommand*\acs@affil@ifdup@aux{%
400     \advance\@tempcnta\@ne \relax
401     \expandafter\expandafter\expandafter\def\expandafter\expandafter
402     \expandafter\@tempb\expandafter\expandafter\expandafter
403     {\csname @address@\@roman\@tempcnta\endcsname}%
404     \ifx\@tempa\@tempb
405         \expandafter\@tempswatrue
406     \else
407         \ifnum\@tempcnta<\acs@affil@cnt \relax
408             \expandafter\expandafter\expandafter\acs@affil@ifdup@aux
409         \fi
410     \fi
411 }

```

`\acs@affil@swap` If the affiliation has already been given, then all of the authors need to be checked to make sure that the correct affiliation is used. First, the loop from above is used to find the correct number for the duplicate.

```

412 \newcommand*\acs@affil@swap[1]{%
413     \begingroup
414     \def\@tempa{#1}%
415     \@tempcnta\z@ \relax
416     \@tempcntb\z@ \relax
417     \acs@affil@ifdup@aux
418     \advance\acs@affil@cnt\@ne \relax
419     \acs@affil@swap@aux
420 \endgroup
421 }
422 \newcommand*\acs@affil@swap@aux{%
423     \advance\@tempcntb\@ne \relax
424     \expandafter\ifnum\csname @author@affil@\@roman\@tempcntb\endcsname
425     = \acs@affil@cnt \relax

```

```

426 \expandafter\xdef\csname @author@affil@\@roman\@tempcntb\endcsname{%
427 \the\@tempcnta
428 }%
429 \fi
430 \ifnum\@tempcntb<\acs@author@cnt\relax
431 \expandafter\acs@affil@swap@aux
432 \fi
433 }

```

`\alsoaffiliation` To allow complex affiliations, two commands are needed. The first deals with `\acs@alsoaffil@find` affiliations that are in some way shared by several authors. This is tracked on a per author basis.

```

434 \newcommand*\alsoaffiliation[2][\relax]{%
435 \ifnum\acs@author@cnt>\z@\relax
436 \acs@affil@ifdup{#2}{%
437 \acs@alsoaffil@find{#2}%
438 }{%
439 \global\advance\acs@affil@cnt\@ne\relax
440 \@tempcnta\acs@affil@cnt\relax
441 \expandafter\gdef\csname @address@\@roman\acs@affil@cnt\endcsname
442 {#2}%
443 \ifx\relax#1\relax
444 \expandafter\gdef\csname @affil@\@roman\acs@affil@cnt\endcsname
445 {#2}%
446 \else
447 \expandafter\gdef\csname @affil@\@roman\acs@affil@cnt\endcsname
448 {#1}%
449 \fi
450 }%
451 \@ifundefined{@author@alsoaffil@\@roman\acs@author@cnt}{%
452 \expandafter\xdef\csname @author@alsoaffil@\@roman\acs@author@cnt
453 \endcsname{\the\@tempcnta}%
454 }{%
455 \expandafter\xdef\csname @author@alsoaffil@\@roman\acs@author@cnt
456 \endcsname{%
457 \csname @author@alsoaffil@\@roman\acs@author@cnt\endcsname
458 ,\the\@tempcnta
459 }%
460 }%
461 \else
462 \acs@warning{Affiliation with no author}%
463 \fi
464 }
465 \newcommand*\acs@alsoaffil@find[1]{%
466 \begingroup
467 \def\@tempa{#1}%
468 \@tempcnta\z@\relax
469 \@tempcntb\z@\relax
470 \acs@affil@ifdup@aux
471 \expandafter\endgroup
472 \expandafter\@tempcnta\the\@tempcnta\relax
473 }

```

`\altaffiliation` For the alternative affiliation, a second count is kept, and the affiliation is “at-

tached" to the author. The way these are stored means that the appropriate affiliation number can be recovered later, and so printed correctly when things get complex.

```

474 \newcommand*\altaffiliation[1]{%
475   \ifnum\acs@author@cnt>\z@\relax
476   \begingroup
477     \acs@altaffil@ifdup{#1}{%
478       \expandafter\xdef\csname @author@altaffil@\@roman\acs@author@cnt
479         \endcsname{\the\@tempcnta}%
480     }{%
481       \global\advance\acs@affil@alt@cnt\@ne\relax
482       \expandafter\gdef\csname @altaffil@\@roman\acs@affil@alt@cnt
483         \endcsname{#1}%
484       \expandafter\xdef\csname @author@altaffil@\@roman\acs@author@cnt
485         \endcsname{\the\acs@affil@alt@cnt}%
486     }%
487   \endgroup
488   \else
489     \acs@warning{Affiliation with no author}%
490   \fi
491 }
492 \@onlypreamble\altaffiliation

```

`\acs@altaffil@ifdup` This is very similar to the same routine for normal affiliations but with the appropriate name changes.

```

493 \newcommand*\acs@altaffil@ifdup[1]{%
494   \def\@tempa{#1}%
495   \@tempswafalse
496   \@tempcnta\z@\relax
497   \ifnum\acs@affil@alt@cnt>\z@\relax
498     \expandafter\acs@altaffil@ifdup@aux
499   \fi
500   \if@tempswa
501     \expandafter\@firstoftwo
502   \else
503     \expandafter\@secondoftwo
504   \fi
505 }
506 \newcommand*\acs@altaffil@ifdup@aux{%
507   \advance\@tempcnta\@ne\relax
508   \expandafter\expandafter\expandafter\def\expandafter\expandafter
509     \expandafter\@tempb\expandafter\expandafter\expandafter
510     {\csname @altaffil@\@roman\@tempcnta\endcsname}%
511   \ifx\@tempa\@tempb
512     \expandafter\@tempswatruetrue
513   \else
514     \ifnum\@tempcnta<\acs@affil@alt@cnt\relax
515       \expandafter\expandafter\expandafter\acs@altaffil@ifdup@aux
516     \fi
517   \fi
518 }

```

`\email` E-mail addresses are attached to authors as well.

```

519 \newcommand*\email[1]{%
520   \ifnum\acs@author@cnt>\z@\relax
521     \expandafter\gdef\csname @email@\@roman\acs@author@cnt\endcsname
522       {#1}%
523   \else
524     \acs@warning{E-mail with no author}%
525   \fi
526 }
527 \@onlypreamble\email

```

\fax Fax and phone numbers are similar.

```

\phone 528 \newcommand*\fax[1]{%
529   \ifnum\acs@author@cnt>\z@\relax
530     \expandafter\gdef\csname @fax@\@roman\acs@author@cnt\endcsname
531       {#1}%
532   \else
533     \acs@warning{Fax number with no author}%
534   \fi
535 }
536 \@onlypreamble\fax
537 \newcommand*\phone[1]{%
538   \ifnum\acs@author@cnt>\z@\relax
539     \expandafter\gdef\csname @phone@\@roman\acs@author@cnt\endcsname
540       {#1}%
541   \else
542     \acs@warning{Phone number with no author}%
543   \fi
544 }
545 \@onlypreamble\phone

```

\abbreviations Some journals use these.

```

\@abbreviations 546 \newcommand*\abbreviations[1]{%
\keywords 547   \gdef\@abbreviations{#1}%
\@keywords 548 }
549 \newcommand*\@abbreviations{}
550 \@onlypreamble\abbreviations
551 \newcommand*\keywords[1]{%
552   \gdef\@keywords{#1}%
553 }
554 \newcommand*\@keywords{}
555 \@onlypreamble\keywords

```

\acs@abbreviations@print For printing the key simple meta-data.

```

\acs@keywords@print 556 \newcommand*\acs@abbreviations@print{%
\acs@title@short@print 557   \ifx\@abbreviations\@empty\else
558     \section*{Abbreviations}
559     \@abbreviations
560     \par
561     \fi
562 }
563 \newcommand*\acs@keywords@print{%
564   \ifx\@keywords\@empty\else
565     \section*{Keywords}
566     \@keywords

```

```

567   \par
568   \fi
569 }
570 \newcommand*\acs@title@short@print{%
571   \section*{Running header}
572   \acs@title@short
573   \par
574 }

```

```

\acs@space@pre@title Lengths for \@maketitle.
\acs@space@post@title 575 \newlength\acs@space@pre@title
\acs@space@post@author 576 \setlength\acs@space@pre@title{2em}
\acs@space@post@address 577 \newlength\acs@space@post@title
\acs@space@post@email 578 \setlength\acs@space@post@title{1.5em}
\acs@maketitle@width 579 \newlength\acs@space@post@author
580 \setlength\acs@space@post@author{1em}
581 \newlength\acs@space@post@address
582 \setlength\acs@space@post@address{1em}
583 \newlength\acs@space@post@email
584 \setlength\acs@space@post@email{1.5em}
585 \newlength\acs@maketitle@width
586 \setlength\acs@maketitle@width{\textwidth}

```

```

\affilsize Some simple size commands.
\authorsize 587 \newcommand*\affilsize{\normalsize}
\emailsize 588 \newcommand*\authorsize{\large}
\titlesize 589 \newcommand*\emailsize{\normalsize}
590 \newcommand*\titlesize{\LARGE}

```

```

\authorfont Font settings for \@maketitle.
\authorfont 591 \newcommand*\affilfont{\itshape}
\emailfont 592 \newcommand*\authorfont{\sffamily}
\titlefont 593 \newcommand*\emailfont{}
594 \newcommand*\titlefont{\bfseries\sffamily}

```

```

\ps@acs A shortcut to make page styles.
595 \newcommand*\ps@acs{}
596 \let\ps@acs\ps@plain

```

\@maketitle With the changes outlined above in place, a new \@maketitle macro is needed.
\@maketitle@title@hook This is partially a copy of the existing, but rather heavily modified.

```

597 \def\@maketitle{%
598   \pagestyle{acs}%
599   \ifnum\acs@author@cnt<\z@\relax
600     \acs@warning{No authors defined: At least one author is required}%
601   \fi
602   \newpage
603   \null
604   \vspace*{\acs@space@pre@title}%
605   \begin{center}
606     \begin{minipage}{\acs@maketitle@width}
607       \begin{center}
608         {%

```

```

609         \titlefont
610         \titlesize
611         \let\@fnsymbol\acs@author@fnsymbol
612         \let\footnote\acs@title@footnote
613         \acs@maketitle@suppinfo \@title
614         \acs@title@footnote@check
615         \global\acs@footnote@cnt\c@footnote
616         \@maketitle@title@hook
617         \par
618     }%
619     \vspace*{\acs@space@post@title}%
620     {%
621         \authorsize
622         \authorfont
623         \frenchspacing
624         \acs@author@list
625         \par
626     }%
627     \vspace*{\acs@space@post@author}%
628     {%
629         \affilsize
630         \affilfont
631         \acs@address@list
632         \par
633     }%
634     \vspace*{\acs@space@post@address}%
635     {%
636         \emailsize
637         \emailfont
638         \ifacs@email
639         \expandafter\acs@contact@details
640         \fi
641     }%
642     \vspace*{\acs@space@post@email}%
643     \end{center}
644     \end{minipage}
645     \end{center}%
646 }
647 \newcommand*\@maketitle@title@hook{}

```

\acs@maketitle@suppinfo This is spun out so that it can be avoided if necessary: this is done on the sly.

```

648 \newcommand*\acs@maketitle@suppinfo{%
649     \ifx\acs@manuscript\acs@manuscript@suppinfo
650         Supporting Information:\
651     \fi
652 }

```

\acs@title@footnote Footnotes need to be created so that they appear correctly.

```

\acs@title@footnote@check 653 \newcommand*\acs@title@footnote[1]{%
654     \footnotemark
655     \g@addto@macro\@thanks{\footnotetext{#1}}%
656 }
657 \newcommand\acs@title@footnote@check{%
658     \ifx\@thanks\@empty

```

```

659 \else
660   \begingroup
661     \toks@=\expandafter{\@thanks}%
662     \xdef\@thanks{%
663       \begingroup
664         \let\noexpand\@fnsymbol\noexpand\acs@author@fnsymbol
665         \the\toks@
666       \endgroup
667     }%
668   \endgroup
669 \fi
670 }

```

`\acs@contact@details` A general contact details macro.

```

671 \newcommand*\acs@contact@details{%
672   { \sffamily E-mail: \acs@email@list }%
673   \acs@number@list
674 }

```

`\@thanks` The `\@thanks` macro is used as a hook to generate the footnotes if needed.

```

675 \let\@thanks\@empty

```

`\acs@author@list` Printing the author list needs to do several things. The appropriate separators between authors are created and the author names themselves are printed.

```

676 \newcommand*\acs@author@list{%
677   \@tempcnta\z@\relax
678   \ifnum\acs@author@cnt=\z@\relax\else
679     \expandafter\acs@author@list@main
680   \fi
681 }

```

`\acs@author@footnotes` The main control macro for producing the author list iterates over each author
`\acs@author@list@main` on the list. The result is stored as `\acs@author@listing`.

```

682 \newcommand*\acs@author@footnotes{}
683 \newcommand*\acs@author@list@main{%
684   \advance\@tempcnta\@ne\relax
685   \def\acs@author@footnotes{}%
686   \acs@author@list@and
687   \space
688   \@nameuse{@author@\@roman\@tempcnta}%
689   \acs@author@list@comma
690   \acs@author@star
691   \acs@author@affil
692   \acs@author@affil@also
693   \acs@author@affil@alt
694   \ifx\@empty\acs@author@footnotes\else
695     \textsuperscript{\acs@author@footnotes}%
696   \fi
697   \ifnum\@tempcnta<\acs@author@cnt\relax
698     \expandafter\acs@author@list@main
699   \fi
700 }

```


`\acs@author@list@and` Simple checks to add an “and” and a comma.

```

\acs@author@list@comma 701 \newcommand*\acs@author@list@and{%
702 \ifnum\acs@author@cnt=\@ne\relax\else
703 \ifnum\@tempcnta=\acs@author@cnt\relax
704 \space and%
705 \fi
706 \fi
707 }
708 \newcommand*\acs@author@list@comma{%
709 \ifnum\acs@author@cnt>\tw@\relax
710 \ifnum\@tempcnta<\acs@author@cnt\relax
711 ,%
712 \fi
713 \fi
714 }

```

`\acs@author@star` A check for an e-mail for an author: if so, add a star.

```

\acs@author@star@aux 715 \newcommand*\acs@author@star{%
716 \acs@ifundefined{@email@\@roman\@tempcnta}{}{%
717 \acs@author@star@aux
718 }%
719 }
720 \newcommand*\acs@author@star@aux{%
721 \protected@edef\acs@author@footnotes{%
722 \acs@author@fnsymbol{\z}%
723 \ifnum\acs@affil@cnt>\@ne\relax
724 ,%
725 \else
726 \ifnum\acs@affil@alt@cnt>\z\relax
727 ,%
728 \fi
729 \fi
730 }%
731 }

```

`\acs@author@affil` The main affiliation of the author is checked for, and assuming one is found the appropriate symbol is added to the list.

```

\acs@author@affil@aux 732 \newcommand*\acs@author@affil{%
733 \acs@ifundefined{%
734 @affil@\@roman\csname @author@affil@\@roman\@tempcnta\endcsname
735 }{%
736 \acs@warning{%
737 No affiliation given for author\MessageBreak
738 \@nameuse{@author@\@roman\@tempcnta}%
739 }%
740 }{%
741 \acs@author@affil@aux
742 }%
743 }
744 \newcommand*\acs@author@affil@aux{%
745 \ifnum\acs@affil@cnt>\@ne\relax
746 \expandafter\acs@affil@marker@cnt\csname @author@affil@\@roman
747 \@tempcnta\endcsname\relax
748 \advance\acs@affil@marker@cnt\acs@footnote@cnt\relax

```

```

749 \protected@edef\acs@author@footnotes{%
750 \acs@author@footnotes
751 \acs@author@fnsymbol{\acs@affil@marker@cnt}}%
752 }%
753 \else
754 \ifnum\acs@affil@alt@cnt>\z@\relax
755 \acs@affil@marker@cnt\@ne\relax
756 \advance\acs@affil@marker@cnt\acs@footnote@cnt\relax
757 \protected@edef\acs@author@footnotes{%
758 \acs@author@footnotes
759 \acs@author@fnsymbol{\acs@affil@marker@cnt}}%
760 }%
761 \fi
762 \fi
763 }

```

`\acs@author@affil@also` The “also” affiliations are generated by a loop as there may be more than one.

```

\acs@author@affil@also@aux 764 \newcommand*\acs@author@affil@also{%
765 \acs@ifundefined{@author@alsoaffil@\@roman\@tempcnta}{-}{%
766 \acs@author@affil@also@aux
767 }%
768 }
769 \newcommand*\acs@author@affil@also@aux{%
770 \expandafter\@for\expandafter\@tempa\expandafter:\expandafter
771 =\csname @author@alsoaffil@\@roman\@tempcnta\endcsname\do{%
772 \acs@affil@marker@cnt\@tempa\relax
773 \advance\acs@affil@marker@cnt\acs@footnote@cnt\relax
774 \protected@edef\acs@author@footnotes{%
775 \acs@author@footnotes
776 ,%
777 \acs@author@fnsymbol{\acs@affil@marker@cnt}}%
778 }%
779 }%
780 }

```

`\acs@author@affil@alt` Alternative affiliations get the correct affiliation number back out from the stored data. There are then two corrections: one for the total number of main affiliations and a second in case there is a footnote to the title.

```

781 \newcommand*\acs@author@affil@alt{%
782 \acs@ifundefined{@author@altaffil@\@roman\@tempcnta}{-}{%
783 \acs@author@affil@alt@aux
784 }%
785 }
786 \newcommand*\acs@author@affil@alt@aux{%
787 \expandafter\acs@affil@marker@cnt
788 \csname @author@altaffil@\@roman\@tempcnta\endcsname\relax
789 \advance\acs@affil@marker@cnt\acs@affil@cnt\relax
790 \advance\acs@affil@marker@cnt\acs@footnote@cnt\relax
791 \protected@edef\acs@author@footnotes{%
792 \acs@author@footnotes
793 ,%
794 \acs@author@fnsymbol{\acs@affil@marker@cnt}}%
795 }%
796 }

```

```

\acs@author@fnsymbol The ACS have an extended list of symbols. The star appears at the special position
\acs@author@fnsymbol@aux zero.
\acs@author@fnsymbol@loop 797 \newcommand*{\acs@author@fnsymbol}[1]{%
\acs@author@fnsymbol@loop@aux@i 798 \ensuremath{%
\acs@author@fnsymbol@loop@aux@ii 799 \expandafter\acs@author@fnsymbol@aux\expandafter{\number#1 }%
\acs@author@fnsymbol@loop@aux@m 800 }%
\acs@author@fnsymbol@loop@aux@Q 801 }
\acs@author@fnsymbol@symbol 802 \newcommand*{\acs@author@fnsymbol@aux}[1]{%
803 \ifnum#1>10 %
804 \expandafter\acs@author@fnsymbol@loop
805 \else
806 \expandafter\acs@author@fnsymbol@symbol
807 \fi
808 {#1}%
809 }
810 \newcommand*{\acs@author@fnsymbol@loop}[1]{%
811 \acs@author@fnsymbol@loop@aux@i#1%
812 }
813 \newcommand*{\acs@author@fnsymbol@loop@aux@i}[2]{%
814 \acs@author@fnsymbol@symbol{\ifnum#2=0 10\else #2\fi}%
815 \expandafter\acs@author@fnsymbol@loop@aux@ii\romannumeral #1000Q{}%
816 {\acs@author@fnsymbol@symbol{\ifnum#2=0 10\else #2\fi}}%
817 }
818 \newcommand*{\acs@author@fnsymbol@loop@aux@ii}[1]{%
819 \@nameuse{acs@author@fnsymbol@loop@aux@#1}%
820 }
821 \def\acs@author@fnsymbol@loop@aux@m#1Q#2#3{%
822 \acs@author@fnsymbol@loop@aux@ii#1Q{#2#3}{#3}%
823 }
824 \newcommand*{\acs@author@fnsymbol@loop@aux@Q}[2]{#1}
825 \newcommand*{\acs@author@fnsymbol@symbol}[1]{%
826 \ifcase #1 *\or
827 \dagger\or
828 \ddagger\or
829 \P\or
830 \S\or
831 \|\or
832 \bot\or
833 \#\or
834 @\or
835 \triangle\or
836 \nabla
837 \fi
838 }

\acs@address@list Loop over the addresses and any extra affiliations and print them all: if there
\acs@address@list@auxi is only one, omit the marker entirely. There is also a need to watch out for any
\acs@address@list@auxii footnotes from the title.
839 \newcommand*\acs@address@list{%
840 \ifnum\acs@affil@cnt>\z@
841 \expandafter\acs@address@list@auxi
842 \else
843 \acs@warning{No affiliations: at least one affiliation is needed}%
844 \fi

```

```

845 }
846 \newcommand*\acs@address@list@auxi{%
847   \ifnum0%
848     \ifnum\acs@affil@cnt>\@ne 1\fi
849     \ifnum\acs@affil@alt@cnt>\z@ 1\fi
850     >\z@
851     \expandafter\acs@address@list@auxii
852   \else
853     \@address@i\par
854   \fi
855 }
856 \newcommand*\acs@address@list@auxii{%
857   \@tempcnta\z@
858   \acs@affil@marker@cnt\acs@footnote@cnt
859   \loop\ifnum\@tempcnta<\acs@affil@cnt
860     \advance\@tempcnta\@ne
861     \advance\acs@affil@marker@cnt\@ne
862     \acs@author@fnsymbol{\acs@affil@marker@cnt}%
863     \@nameuse{@address@\@roman\@tempcnta}\par
864   \repeat
865   \@tempcnta\z@
866   \loop\ifnum\@tempcnta<\acs@affil@cnt
867     \advance\@tempcnta\@ne
868     \advance\acs@affil@marker@cnt\@ne
869     \acs@ifundefined{@altaffil@\@roman\@tempcnta}
870     {}
871     {%
872       \acs@author@fnsymbol{\acs@affil@marker@cnt}%
873       \@nameuse{@altaffil@\@roman\@tempcnta}\par
874     }%
875   \repeat
876 }

```

\acs@fnsymbol@org Footnotes are done in two stages. First the main affiliation is handled, then the possible alternative. There is a need to check for the possibility that there is only one main affiliation but one or more alternative ones.

```

877 \newcommand*\acs@fnsymbol@org{}
878 \newcommand*\acs@affil@list{%
879   \let\acs@fnsymbol@org\@fnsymbol
880   \let\@fnsymbol\acs@author@fnsymbol
881   \@tempcnta\z@\relax
882   \@tempcntb\z@\relax
883   \ifnum\acs@affil@cnt>\@ne\relax
884     \expandafter\acs@affil@list@aux
885   \else
886     \ifnum\acs@affil@alt@cnt>\z@\relax
887       \acs@affil@marker@cnt\@ne\relax
888       \advance\acs@affil@marker@cnt\acs@footnote@cnt\relax
889       \footnotetext[\acs@affil@marker@cnt]{\@affil@i}%
890       \@tempcnta\@ne\relax
891     \fi
892   \fi
893   \ifnum\acs@affil@alt@cnt>\z@\relax
894     \expandafter\acs@affil@alt@list

```

```

895 \fi
896 \let\@fnsymbol\acs@fnsymbol@org
897 }
898 \newcommand*\acs@affil@list@aux{%
899 \advance\@tempcnta\@ne\relax
900 \acs@affil@marker@cnt\@tempcnta\relax
901 \advance\acs@affil@marker@cnt\acs@footnote@cnt\relax
902 \footnotetext[\acs@affil@marker@cnt]{%
903 \@nameuse{\@affil@\@roman\@tempcnta}%
904 }%
905 \ifnum\@tempcnta<\acs@affil@cnt\relax
906 \expandafter\acs@affil@list@aux
907 \fi
908 }

```

\acs@affil@alt@list The secondary loop for alternative affiliations is similar.
\acs@affil@alt@lista@aux

```

909 \newcommand*\acs@affil@alt@list{%
910 \advance\@tempcntb\@ne\relax
911 \acs@ifundefined{\@altaffil@\@roman\@tempcntb}{\}%
912 \acs@altaffil@foot@aux
913 }
914 \ifnum\@tempcntb<\acs@author@cnt\relax
915 \expandafter\acs@affil@alt@list
916 \fi
917 }
918 \newcommand*\acs@altaffil@foot@aux{%
919 \advance\@tempcnta\@ne\relax
920 \acs@affil@marker@cnt\@tempcnta\relax
921 \advance\acs@affil@marker@cnt\acs@footnote@cnt\relax
922 \footnotetext[\acs@affil@marker@cnt]{%
923 \@nameuse{\@altaffil@\@roman\@tempcntb}%
924 }%
925 }

```

\acs@email@list@font The final piece of meta-data to print is the e-mail address list. The total number
\acs@email@list of e-mail addresses given it counted in \@tempcntb, which means a warning
\acs@email@list@aux can be given if there are none. The group is used so that \UrlFont can be set
correctly.

```

926 \newcommand*\acs@email@list@font{\sf}
927 \newcommand*\acs@email@list{%
928 \begingroup
929 \def\UrlFont{\acs@email@list@font}%
930 \@tempcnta\z@\relax
931 \@tempcntb\z@\relax
932 \acs@email@list@aux
933 \ifnum\@tempcntb=\z@\relax
934 \acs@warning{%
935 No e-mail given:\MessageBreak
936 at least one author must have a contact e-mail%
937 }%
938 \fi
939 \endgroup
940 }
941 \newcommand*\acs@email@list@aux{%

```

```

942 \advance\@tempcnta\@ne\relax
943 \ifnum\@tempcnta>\acs@author@cnt\relax\else
944 \acs@ifundefined{@email@\@roman\@tempcnta}{-}{%
945 \advance\@tempcntb\@ne\relax
946 \ifnum\@tempcntb>\@ne\relax
947 ;
948 \fi
949 \expandafter\expandafter\expandafter\url\expandafter
950 \expandafter\expandafter{%
951 \csname @email@\@roman\@tempcnta\endcsname
952 }%
953 }%
954 \expandafter\acs@email@list@aux
955 \fi
956 }

```

\acs@number@list Listing phone and fax numbers is easier as they don't have to be given. Everything
\acs@number@list@aux@i is done in one block so that it is possible to know whether to add a new line and
\acs@number@list@aux@ii also to keep everything together.

```

957 \newcommand*\acs@number@list{%
958 \begingroup
959 \acs@number@list@aux@i{phone}%
960 \let\@tempb\@tempa
961 \acs@number@list@aux@i{fax}%
962 \ifx\@tempa\@empty
963 \let\@tempa\@tempb
964 \else
965 \ifx\@tempb\@empty\else
966 \protected@edef\@tempa{%
967 \@tempb.\space\@tempa
968 }%
969 \fi
970 \fi
971 \ifx\@tempa\@empty\else
972 \par
973 \@tempa
974 \fi
975 \endgroup
976 }
977 \newcommand*\acs@number@list@aux@i[1]{%
978 \def\@tempa{}%
979 \@tempcnta\z@\relax
980 \def\acs@number@list@aux@ii{%
981 \advance\@tempcnta\@ne\relax
982 \ifnum\@tempcnta>\acs@author@cnt\relax\else
983 \acs@ifundefined{@#1@\@roman\@tempcnta}{-}{%
984 \acs@ifundefined{@email@\@roman\@tempcnta}{-}{%
985 \ifx\@tempa\@empty
986 \edef\@tempa{%
987 \@nameuse{@#1@\@roman\@tempcnta}%
988 }%
989 \else
990 \edef\@tempa{%
991 \@tempa

```

```

992             ;
993             \@nameuse{@#1@\@roman\@tempcnta}%
994         }%
995     \fi
996 }%
997 }%
998 \expandafter\acs@number@list@aux@ii
999 \fi
1000 }%
1001 \acs@number@list@aux@ii
1002 \ifx\@tempa\@empty\else
1003 \protected@edef\@tempa{%
1004 \MakeUppercase#1: \@tempa
1005 }%
1006 \fi
1007 }
1008 \newcommand*\acs@number@list@aux@ii{}

```

\endabstract

```

\acs@abstract@extras 1009 \g@addto@macro\endabstract{%
1010 \aftergroup\acs@abstract@extras
1011 }
1012 \newcommand*\acs@abstract@extras}{%
1013 \ifacs@abbreviations
1014 \acs@abbreviations@print
1015 \par
1016 \fi
1017 \ifacs@keywords
1018 \acs@keywords@print
1019 \par
1020 \fi
1021 }

```

\acs@maketitle@extras A couple of things might need to be added to \maketitle.

```

\acs@maketitle@extras@hook 1022 \newcommand*\acs@maketitle@extras{%
1023 \acs@maketitle@extras@hook
1024 }
1025 \newcommand*\acs@maketitle@extras@hook{}
1026 \g@addto@macro{\maketitle}{\acs@maketitle@extras}

```

\maketitle is required by the document class, and must start the document. No variation is allowed, and so it is done automatically.

```

1027 \g@addto@macro{\document}{\maketitle}

```

scheme (env.) Three new float types are provided, *scheme*, *chart* and *graph*. These are the *chart (env.)* most obvious types; for graphs, a slight problem arises with the file extension.

```

graph (env.) 1028 \newfloat{scheme}{htbp}{los}
1029 \floatname{scheme}{Scheme}
1030 \newfloat{chart}{htbp}{loc}
1031 \floatname{chart}{Chart}
1032 \newfloat{graph}{htbp}{loh}
1033 \floatname{graph}{Graph}

```

`\schemename` Naming is set up in the same way as the kernel floats.

```
\chartname 1034 \newcommand*\schemename{Scheme}
\graphname 1035 \newcommand*\chartname{Chart}
           1036 \newcommand*\graphname{Graph}
```

The standard floats should appear “here” by default.

```
1037 \floatplacement{table}{htbp}
1038 \floatplacement{figure}{htbp}
1039 \floatstyle{plaintop}
1040 \restylefloat{table}
```

`\acs@floatboxreset` Floats are all centred.

```
1041 \let\acs@floatboxreset\@floatboxreset
1042 \def\@floatboxreset{%
1043   \centering
1044   \acs@floatboxreset
1045 }
```

`\plainref` For legacy support.

```
\ref 1046 \newcommand*\plainref{}
      1047 \AtBeginDocument{\let\plainref\ref}
```

`\acs@section` Both the numbering and existence of section headers may need to be altered.

`\acs@subsection` Some generic functions are therefore provided to deal with this cleanly. First,

`\acs@subsubsection` some original definitions are saved.

```
\acs@startsection@orig 1048 \newcommand*\acs@section{}
                        1049 \let\acs@section\section
                        1050 \newcommand*\acs@subsection{}
                        1051 \let\acs@subsection\subsection
                        1052 \newcommand*\acs@subsubsection{}
                        1053 \let\acs@subsubsection\subsubsection
                        1054 \newcommand*\acs@startsection@orig{}
                        1055 \let\acs@startsection@orig\@startsection
```

`\acs@startsection` A version of `\@startsection` which adds unnumbered sections to the TOC: modelled on `amsart`. This is active as standard.

```
1056 \newcommand\acs@startsection[6]{%
1057   \if@noskipsec \leavevmode \fi
1058   \par \@tempskipa #4\relax
1059   \@afterindenttrue
1060   \ifdim \@tempskipa <\z@ \@tempskipa -\@tempskipa \@afterindentfalse\fi
1061   \if@nobreak \everypar{}\else
1062     \addpenalty\@secpenalty\addvspace\@tempskipa\fi
1063   \@ifstar{\@dblarg{\@sect{#1}{\@m}{#3}{#4}{#5}{#6}}}%
1064     {\@dblarg{\@sect{#1}{#2}{#3}{#4}{#5}{#6}}}%
1065 }
1066 \let\@startsection\acs@startsection
```

`\acs@startsection@alt` An alternative version of `\@startsection` which never adds numbers.

```
1067 \newcommand*\acs@startsection@alt[6]{%
1068   \if@noskipsec \leavevmode \fi
1069   \par \@tempskipa #4\relax
1070   \@afterindenttrue
```



```

1071 \ifdim \@tempskipa <\z@ \@tempskipa -\@tempskipa \@afterindentfalse\fi
1072 \if@nobreak \everypar{}\else
1073     \addpenalty\@secpenalty\advspace\@tempskipa\fi
1074 \@ifstar{\@ssect{#3}{#4}{#5}{#6}}
1075     {\@ssect{#3}{#4}{#5}{#6}}%
1076 }

```

`\acs@sections@none` When removing sections entirely, a gobble macro is needed.

```

\acs@sections@none@aux 1077 \newcommand*\acs@sections@none{%
1078     \@ifstar{%
1079         \acs@sections@none@aux
1080     }{%
1081         \acs@sections@none@aux
1082     }%
1083 }
1084 \newcommand*\acs@sections@none@aux[2] []{%
1085     \acs@warning{%
1086         (Sub)section '#2' ignored%
1087     }%
1088 }

```

`\SectionNumbersOff` To macros to add or remove the section numbers. The standard setting for the class has them on, but some configurations will turn them off. The names of these functions are both in design space so that users can change the decision easily.

```

1089 \newcommand*\SectionNumbersOff{%
1090     \let\@startsection\acs@startsection@alt
1091 }
1092 \@onlypreamble\SectionNumbersOff
1093 \newcommand*\SectionNumbersOn{%
1094     \let\@startsection\acs@startsection
1095 }
1096 \@onlypreamble\SectionNumbersOn

```

`\SectionsOff` Quite similar for entire sections.

```

\SectionsOn 1097 \newcommand*\SectionsOff{%
1098     \let\section\acs@sections@none
1099     \let\subsection\acs@sections@none
1100     \let\subsubsection\acs@sections@none
1101 }
1102 \@onlypreamble\SectionsOff
1103 \newcommand*\SectionsOn{%
1104     \let\section\acs@section
1105     \let\subsection\acs@subsection
1106     \let\subsubsection\acs@subsubsection
1107 }
1108 \@onlypreamble\SectionsOn

```

`\tableofcontents` Never print TOC in itself.

```

1109 \begingroup
1110 \toks@=\expandafter{\tableofcontents}
1111 \xdef\tableofcontents{%
1112     \begingroup

```

```

1113     \let\noexpand\@startsection\noexpand\acs@startsection@orig
1114     \the\toks@
1115     \endgroup
1116   }
1117 \endgroup

```

acknowledgement (*env.*) Simple named sections.

```

suppinfo (env.) 1118 \newenvironment{acknowledgement}{%
1119   \acs@section*{\acknowledgementname}%
1120 }{}
1121 \newenvironment{suppinfo}{%
1122   \acs@section*{\suppinfofname}%
1123 }{}

```

\acknowledgementname A few macros need to get around the changes.

```

\bibsection 1124 \newcommand*\acknowledgementname{Acknowledgement}
\suppinfofname 1125 \AtEndOfClass{%
1126   \def\bibsection{%
1127     \acs@section*{\refname}%
1128   }%
1129 }
1130 \newcommand*\suppinfofname{Supporting Information Available}

```

\acs@abstract Removing the abstract, if necessary, is done using a trick from the comment package. However, its code is copied here to keep requirements down.

```

\acs@abstract@start 1131 \newcommand*\acs@abstract{}
\acs@abstract@end 1132 \let\acs@abstract\abstract
\acs@abstract@iffalse 1133 \newcommand*\acs@endabstract{}
1134 \let\acs@endabstract\endabstract
1135 \begingroup
1136   \catcode'\active
1137   \catcode'\relax
1138   \catcode'\relax
1139   \catcode'\relax
1140   \gdef\acs@abstract@start(%
1141     \acs@warning(%
1142       Abstract not allowed for this\MessageBreak
1143       manuscript type
1144     )%
1145     \@bsphack
1146     \catcode'\active
1147     \catcode'\relax
1148     \let\end\fi
1149     \let{\acs@abstract@end% }
1150     \iffalse
1151   ){
1152   \gdef\acs@abstract@end#1}{%
1153     \def\@tempa(#1)%
1154     \ifx\@tempa\@currenvar
1155       \@Esphack\endgroup
1156       \if@ignore
1157         \global\@ignorefalse
1158         \ignorespaces
1159       \fi

```

```

1160   \else
1161     \expandafter\acs@abstract@iffalse
1162   \fi
1163 )
1164 \endgroup
1165 \newcommand*\acs@iffalse{\iffalse}

```

`\AbstractOff` A very similar pattern to before.

```

\AbstractOn 1166 \newcommand*\AbstractOff{%
1167   \let\abstract\acs@abstract@start
1168   \let\endabstract\acs@abstract@end
1169 }
1170 \@onlypreamble\AbstractOff
\newcommand*\AbstractOn{%
1171   \let\abstract\acs@abstract
1172   \let\endabstract\acs@endabstract
1173 }
1174 }
1175 \@onlypreamble\AbstractOn

```

`\acs@collect@toks` The content of the graphic TOC entry is processed using a method from `amsmath`
`\acs@collect@content` *via* `environ`. The entire environment is gathered for typesetting in a box. First,
`\acs@collect@content` some storage is needed.

```

1176 \newtoks\acs@collect@toks
1177 \newtoks\acs@collect@empty@toks
1178 \newcommand*\acs@collect@begins{}
1179 \newcommand*\acs@collect@content{}

```

`\acs@collect` This is a `\long` version of `\collect@body`.

```

\acs@collect@aux 1180 \newcommand\acs@collect[1]{%
\acs@collect@begins@ 1181   \acs@collect@toks{%
\acs@collect@body 1182     \expandafter#1\expandafter{\the\acs@collect@toks}%
1183   }%
1184   \edef\acs@collect@content{%
1185     \the\acs@collect@toks
1186     \noexpand\end{\@currenvir}}%
1187   }%
1188   \acs@collect@toks\acs@collect@empty@toks
1189   \def\acs@collect@begins{b}%
1190   \begingroup
1191     \expandafter\let\csname\@currenvir\endcsname\acs@collect@aux
1192     \edef\acs@collect@content{%
1193       \expandafter\noexpand\csname\@currenvir\endcsname
1194     }%
1195     \acs@collect@content
1196   }
1197 \newcommand*\acs@collect@aux{}
1198 \long\def\acs@collect@aux#1\end#2{%
1199   \edef\acs@collect@begins{%
1200     \acs@collect@begins@#1\begin\end
1201     \expandafter\@gobble\acs@collect@begins
1202   }%
1203   \ifx\@empty\acs@collect@begins
1204     \endgroup
1205     \@checkend{#2}%

```

```

1206 \acs@collect@body{#1}%
1207 \else
1208 \acs@collect@body{#1\end{#2}}%
1209 \fi
1210 \acs@collect@content
1211 }
1212 \newcommand*\acs@collect@begins@{}
1213 \long\def\acs@collect@begins@#1\begin#2{%
1214 \ifx\end#2\else
1215 b\expandafter\acs@collect@begins@
1216 \fi
1217 }
1218 \newcommand\acs@collect@body[1]{%
1219 \global\acs@collect@toks\expandafter{\the\acs@collect@toks#1}%
1220 }

```

`\acs@abstract@print` Delayed abstract printing works in a similar way, but with some formatting 'built-in'.

```

1221 \newcommand\acs@abstract@print[1]{%
1222 \global\long\def\acs@abstract@text{%
1223 \if@twocolumn
1224 \@restonecoltrue\onecolumn
1225 \else
1226 \@restonecolfalse\newpage
1227 \fi
1228 \acs@section*{Abstract}%
1229 #1%
1230 \if@restonecol
1231 \twocolumn
1232 \else
1233 \newpage
1234 \fi
1235 }%
1236 \AtEndDocument{\acs@abstract@text}%
1237 }

```

`\acs@tocentry@print` The same approach is taken for the graphical table of content printing. This is done in a box so that everything has a frame around it.

```

\acs@tocentry@print@aux
\acs@tocentry@text
1238 \newcommand{\acs@tocentry@print}[1]{%
1239 \gdef\acs@tocentry@text{\normalsize#1}%
1240 \AtEndDocument{%
1241 \if@twocolumn
1242 \@restonecoltrue\onecolumn
1243 \else
1244 \@restonecolfalse\newpage
1245 \fi
1246 \acs@tocentry@print@aux
1247 \if@restonecol
1248 \twocolumn
1249 \else
1250 \newpage
1251 \fi
1252 }%
1253 }

```

```

1254 \newcommand*\acs@tocentry@print@aux}{%
1255   \begingroup
1256     \let\@startsection\acs@startsection@orig
1257     \acs@section*\{ \tocentryname}%
1258     \tocsize
1259     \sffamily
1260     \singlespacing
1261     \begin{center}
1262       \fbox
1263         {%
1264           \begin{minipage}{\acs@tocentry@width}
1265             \vbox to \acs@tocentry@height{\acs@tocentry@text}%
1266             \end{minipage}%
1267           }%
1268     \end{center}%
1269   \endgroup
1270 }
1271 \newcommand*\acs@tocentry@text{TOC ENTRY REQUIRED}
1272 \newlength{\acs@tocentry@height}
1273 \newlength{\acs@tocentry@width}
1274 \setlength{\acs@tocentry@height}{1.75in}
1275 \setlength{\acs@tocentry@width}{3.25in}

```

`tocentry` (*env.*) Actually creating the entry is pretty easy.

```

1276 \newenvironment{tocentry}{\acs@collect\acs@tocentry@print}{\}

```

`\tocentryname` A simple name macro.

```

1277 \newcommand*\tocentryname{TOC Graphic}

```

`\tocsize` The font size for printing the TOC entry.

```

1278 \newcommand*\tocsize{%
1279   \@setfontsize\tocsize\@viiipt\@ixpt
1280 }

```

`\acs@type@list` Different journals allow different types of article. A list is set up here: different journals can then alter it. A check function is also provided along with a default.

```

\acs@type@default
\acs@type@check
1281 \newcommand*\acs@type@list{article,communication,suppinfo}
1282 \newcommand*\acs@type@default{article}
1283 \newcommand*\acs@type@check{%
1284   \@tempswafalse
1285   \@for\@tempa:=\acs@type@list\do{%
1286     \ifx\@tempa\acs@manuscript
1287       \expandafter\@tempswatrue
1288     \fi
1289   }%
1290   \if@tempswa\else
1291     \acs@warning{%
1292       Invalid manuscript type \acs@manuscript:\MessageBreak
1293       changed to default type \acs@type@default
1294     }%
1295     \let\acs@manuscript\acs@type@default
1296   \fi
1297 }

```

A few bits for older versions.

```
1298 \newcommand*\acs@setkeys{\setkeys{acs}}
1299 \let\acs@killabstract\AbstractOff
1300 \let\acs@killsecs\SectionsOff
1301 \newcommand*\acs@validtype[2][article]{%
1302   \def\acs@type@default{#1}%
1303   \def\acs@type@list{#2}%
1304 }
```

`\acs@par` A saved paragraph.

```
1305 \newcommand*\acs@par{}
1306 \let\acs@par\par
```

`\acs@layout@shared` Some code is used generally when setting up “press ready” layouts. There is acknowledgement (*env.*) quite a bit here, mainly layout related.

```
suppinfo (env.) 1307 \newcommand*\acs@layout@shared{%
1308   \AtBeginDocument{\singlespacing}%
1309   \twocolumn
1310   \tolerance=2000\relax
1311   \emergencystretch=10pt\relax
1312   \geometry{
1313     letterpaper,
1314     top    = 12.7mm,
1315     bottom = 16.8mm,
1316     left   = 19.3mm,
1317     right  = 19.3mm
1318   }%
1319   \setlength{\columnsep}{8.1mm}%
1320   \setlength{\parindent}{3.3mm}%
1321   \renewenvironment{acknowledgement}{%
1322     \def@tempa{acknowledgement}%
1323     \ifx@currenvir@tempa
1324       \let\par\relax
1325       \acksizesize
1326       \vspace{6pt}%
1327       \textbf{\acknowledgementname}%
1328     \else
1329       \acs@section*{\acknowledgementname}%
1330     \fi
1331   }{%
1332     \acs@par
1333   }%
1334 }
```

`\acksizesize` More sizes.

```
\suppsizesize 1335 \newcommand*\acksizesize{\normalsize}
1336 \newcommand*\suppsizesize{\normalsize}
```

`\acs@layout@nine` The class loads twelve point text. To reset it for print layouts, it is easiest to do things directly.

```
\acs@layout@ten 1337 \newcommand*\acs@layout@nine{%
1338   \def\xipt{11}%
1339   \long\def\normalsize{%
```

```

1340 \setfontsize\normalsize\@ixpt\@xipt
1341 }%
1342 \normalsize
1343 \let\@listi\@listI
1344 \abovedisplayskip 5\p@ \@plus2\p@ \@minus 5\p@\relax
1345 \abovedisplayshortskip \z@ \@plus3\p@\relax
1346 \belowdisplayshortskip 3\p@ \@plus3\p@ \@minus 3\p@\relax
1347 \belowdisplayskip\abovedisplayskip\relax
1348 \abovecaptionskip 5\p@\relax
1349 \intertextsep 7\p@ \@plus 2\p@ \@minus 2\p@\relax
1350 }
1351 \newcommand*\acs@layout@ten{%
1352 \long\def\normalsize{%
1353 \setfontsize\normalsize\@xpt\@xipt
1354 }%
1355 \normalsize
1356 \setfontsize\normalsize\@xpt\@xipt
1357 \let\@listi\@listI
1358 \abovedisplayskip 10\p@ \@plus2\p@ \@minus5\p@\relax
1359 \abovedisplayshortskip \z@ \@plus3\p@\relax
1360 \belowdisplayshortskip 6\p@ \@plus3\p@ \@minus3\p@\relax
1361 \belowdisplayskip \abovedisplayskip\relax
1362 }

```

With all of the standard settings done, the journal configuration can be loaded.

```

1363 \InputIfFileExists{achemso-\acs@journal.cfg}{}{%
1364 \acs@warning{%
1365 Unknown journal '\acs@journal':\MessageBreak
1366 using default configuration JACSAT%
1367 }%
1368 \input{achemso-jacsat.cfg}%
1369 }

```

Suppress spurious warnings.

```

1370 \let\@unusedoptionlist\@empty

```

`\thepage` Some changes that can always be applied if the manuscript type is appropriate: this saves some repetition in the configuration files.

```

1371 \acs@type@check
1372 \ifx\acs@manuscript\acs@manuscript@note
1373 \SectionsOff
1374 \fi
1375 \ifx\acs@manuscript\acs@manuscript@review
1376 \SectionsOn
1377 \SectionNumbersOn
1378 \fi
1379 \ifx\acs@manuscript\acs@manuscript@suppinfo
1380 \setkeys{acs}{maxauthors = 0}
1381 \def\thepage{S-\arabic{page}}
1382 \renewcommand*\thefigure{S\@arabic\c@figure}
1383 \renewcommand*\thescheme{S\@arabic\c@scheme}
1384 \renewcommand*\thetable{S\@arabic\c@table}
1385 \AtBeginDocument
1386 {%

```

```

1387     \renewcommand*\citenumfont[1]{S#1}%
1388     \renewcommand*\bibnumfmt[1]{(S#1)}%
1389   }
1390 \fi

```

Set up two column layout.

```

1391 \begingroup
1392   \def\@tempa{twocolumn}
1393   \ifx\acs@layout\@tempa
1394     \aftergroup\acs@layout@shared
1395   \fi
1396   \def\@tempa{two-column}
1397   \ifx\acs@layout\@tempa
1398     \aftergroup\acs@layout@shared
1399   \fi
1400 \endgroup
1401 \endclass

```

8.5 Late shared code

`\citenumfont` Changes to citations can now be made. The citation styles supplied here require `natbib`, which is loaded with the appropriate options. This part applies to the package as well as the class: it is here so that the load order is correct.

```

1402 \class | package
1403 \ifacs@super
1404   \RequirePackage[sort&compress,numbers,super]{natbib}
1405 \else
1406   \RequirePackage[sort&compress,numbers,round]{natbib}
1407   \def\citenumfont{\textit}
1408 \fi
1409 \define@key{acs}{super}[true]{%
1410   \def\@tempa{#1}%
1411   \def\@tempb{true}%
1412   \ifx\@tempa\@tempb
1413     \setcitestyle{super,open={},close={}}%
1414     \renewcommand*\citenumfont{}%
1415   \else
1416     \setcitestyle{round}%
1417     \renewcommand*\citenumfont{\textit}
1418   \fi
1419 }
1420 \RequirePackage{natmove}

```

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. There is also a patch to get cross-references correct with the modified `\ref` macro used here. The reason for ensuring that `\@mciteNatbibCiteCmdList` is defined is that it allows for the case where people prevent `mciteplus` being loaded using `\ver@mciteplus.sty`.

```

1421 \IfFileExists{mciteplus.sty}{%
1422   \RequirePackage{mciteplus}
1423   \providecommand*\@mciteNatbibCiteCmdList{}%
1424   \edef\@tempa{\noexpand\in@{citenum}\@mciteNatbibCiteCmdList}}%

```



```

1425 \@tempa
1426 \ifin@
1427 \else
1428 \edef\@mciteNatbibCiteCmdList{\@mciteNatbibCiteCmdList,citenum}%
1429 \fi
1430 \<!*package>
1431 \def\@mciteSubRef[##1]##2{\plainref{\@mcitereflabelprefix:##1:##2}}
1432 \</!package>
1433 }-{}

```

`\acs@bibstyle` The next step is to sort out bibliography formatting. With both the package and the class, the bibliography style is determined without user intervention. The style is stored as it may need to be altered later.

```

1434 \newcommand*\acs@bibstyle{achemso}
1435 \ifacs@biochem
1436 \def\acs@bibstyle{biochem}
1437 \bibliographystyle{biochem}
1438 \else
1439 \bibliographystyle{achemso}
1440 \fi

```

`\acs@bibliographystyle` The original `\bibliographystyle` macro is now disabled: the underlying command is repeated otherwise problems cop up with `chapterbib`.

`\bibliographystyle`

```

1441 \newcommand*\acs@bibliographystyle{}
1442 \let\acs@bibliographystyle\bibliographystyle
1443 \def\bibliographystyle#1{%
1444 \acs@warning{\string\bibliographystyle\space ignored}%
1445 \expandafter\acs@bibliographystyle\expandafter{\acs@bibstyle}%
1446 }
1447 \</class | package>

```

8.6 Late package-only code

The `notes2bib` code may or may not be activated.

```

1448 \<*package>
1449 \AtBeginDocument{%
1450 \ifpackageloaded{notes2bib}{-}{-}%
1451 \acs@niib@create
1452 }%
1453 }
1454 \</package>

```

8.7 Moving citations with natbib

The code for moving citations is created as a separate package, as the code needed is the same in both cases.

```

1455 \<*natmove>
1456 \ProvidesPackage{natmove}
1457 [2010/01/15 v1.1a Automatic citation moving with natbib]
1458 \RequirePackage{natbib}

```

`\nmv@ifmtarg` To keep down dependence on other packages, the very short code block from `\nmv@xifmtarg` `ifmtarg` is copied here with an internal name.

```
1459 \newcommand*\nmv@ifmtarg{}
1460 \newcommand*\nmv@xifmtarg{}
1461 \begingroup
1462   \catcode'\Q 3\relax
1463   \long\gdef\nmv@ifmtarg#1{%
1464     \nmv@xifmtarg#1QQ\@secondoftwo\@firstoftwo\@nil
1465   }
1466   \long\gdef\nmv@xifmtarg#1#2Q#3#4#5\@nil{#4}
1467 \endgroup
```

`\ifnmv@cite` A flag is need to watch whether `\cite` or another macro is in use.

```
1468 \newif\ifnmv@cite
```

`\nmv@citex` Using the flag, either the new internal macro, or the `natbib` original, can be called.

```
1469 \newcommand*\nmv@citex{%
1470   \ifnmv@cite
1471     \expandafter\nmv@citex@moving
1472   \else
1473     \expandafter\nmv@citex@nat
1474   \fi
1475 }
```

`\nmv@after` Later, the argument for `\cite` will need to be saved.

```
1476 \newcommand*\nmv@after{}
```

`\nmv@citex@moving` The new version of `\@citex` is needed that looks ahead of the citation using `\futurelet`. There are three arguments to `\@citex` when using `natbib`. Other than that, the trick used here is similar to that in `cite`.

```
1477 \newcommand*\nmv@citex@moving{}
1478 \def\nmv@citex@moving[#1][#2]#3{%
1479   \leavevmode
1480   \skip@\lastskip\relax
1481   \unskip
1482   \begingroup
1483     \def\nmv@after{\nmv@citex@nat[#1][#2]{#3}}%
1484     \global\nmv@citefalse
1485     \nmv@citex@get@next\relax
1486 }
```

`\nmv@citex@end` To get things right at the end.

```
1487 \newcommand*\nmv@citex@end{%
1488   \nmv@after
1489   \endgroup
1490 }
```

`\nmv@citex@get@next` The next token on the input stack is saved into `\nmv@citex@next`, after gobbling `\nmv@citex@next` up one token.

```
1491 \newcommand*\nmv@citex@get@next[1]{%
1492   \futurelet\nmv@citex@next\nmv@citex@punct
1493 }
```

`\nmv@citex@punct` The working macro for moving the punctuation. This is very much like `\@citey`
`\nmv@citex@punct@undouble` in the cite package. The initial assumption is that the loop will terminate, and so
`\nmv@citex@loop` the recursion call will simply do the finalisation.

```

1494 \newcommand*\nmv@citex@punct{%
1495   \let\nmv@citex@loop\nmv@citex@end
1496   \ifx\nmv@citex@next.\relax
1497     \ifnum\spacefactor<\nmv@citex@sfac\else
1498       \expandafter\expandafter\expandafter\nmv@citex@punct@undouble
1499       \fi
1500   \fi
1501   \expandafter\nmv@citex@punct@aux\natmovechars\@nil
1502   \nmv@citex@loop
1503 }
1504 \newcommand*\nmv@citex@punct@undouble{%
1505   \let\nmv@citex@next\relax
1506   \let\nmv@citex@loop\nmv@citex@get@next
1507 }
1508 \newcommand*\nmv@citex@loop{}
```

`\nmv@citex@punct@aux` The final part of the punctuation moving system.

```

1509 \newcommand*\nmv@citex@punct@aux[1]{%
1510   \ifx\nmv@citex@next#1\@empty
1511     #1%
1512     \let\nmv@citex@loop\nmv@citex@get@next
1513   \fi
1514   \ifx#1\@nil\else
1515     \expandafter\nmv@citex@punct@aux
1516   \fi
1517 }
```

`\nmv@citex@sfac` The value of the spacing factor after a full stop is used to signal doubled punctu-
 ation. For French spacing, a bit of patching is needed.

```

1518 \mathchardef\nmv@citex@sfac3000\relax
1519 \expandafter\def\expandafter\frenchspacing\expandafter{%
1520   \frenchspacing
1521   \mathchardef\nmv@citex@sfac1001\relax
1522   \sfcode'\.\nmv@citex@sfac
1523   \sfcode'\?\nmv@citex@sfac
1524   \sfcode'\!\nmv@citex@sfac
1525 }
1526 \ifnum\sfcode'\.=\@m
1527   \frenchspacing
1528 \fi
```

`\nmv@citex@nat` The swap has to be done at the beginning of the document. The internal flag
`\nmv@activate` from natbib is used, but under the circumstances we should be safe. `\cite` is also
`\cite` patched to make the system active.

```

1529 \newcommand*\nmv@citex@nat{}
1530 \newcommand*\nmv@activate{%
1531   \let\nmv@citex@nat\@citex
1532   \let\@citex\nmv@citex
1533   \let\nmv@cite\cite
1534   \renewcommand*\cite}[2][{}]{%
```

```

1535 \nmv@ifmtarg{##1}{-%
1536 \nmv@citetrue
1537 \nmv@cite{##2}%
1538 }-%
1539 \nmv@citefalse
1540 \nmv@cite[##1]{##2}}%
1541 }%
1542 }

```

`\nmv@natbib@detect` So that natbib options can be set without worrying about load order, natmove doesn't require natbib. So a test is needed to see if it is actually loaded. This is done as a macro so that the effect can be changed by achemso.

```

1543 \newcommand*\nmv@natbib@detect{%
1544 \@ifpackageloaded{natbib}{-%
1545 \ifNAT@super
1546 \expandafter\nmv@activate
1547 \fi
1548 }-%
1549 \PackageInfo{natmove}{-%
1550 The natbib package is not loaded.\MessageBreak
1551 Loading natmove will do nothing
1552 }%
1553 }%
1554 }
1555 \AtBeginDocument{\nmv@natbib@detect}

```

`\natmovechars` A user macro is needed for moving characters.

```

1556 \newcommand*\natmovechars{.,;}
1557 \natmove

```

8.8 The configuration files

The configuration files for different journals are not very complex. Keeping everything separate simply helps with maintenance.

```

1558 (*abmcb8)
1559 \ProvidesFile{achemso-abmcb8.cfg}
1560 [2025-04-11 v3.13j achemso configuration: ACS Bio. Med. Chem. Au]
1561 \def\acs@type@list{article,review,letter,perspective,supinfo}
1562 \setkeys{acs}{keywords = true}
1563 (/abmcb8)
1564 (*aeacb3)
1565 \ProvidesFile{achemso-aeacb3.cfg}
1566 [2025-04-11 v3.13j achemso configuration: ACS Eng. Au]
1567 \def\acs@type@list{article,review,letter,perspective,supinfo}
1568 \setkeys{acs}{keywords = true}
1569 (/aeacb3)
1570 (*aeacc4)
1571 \ProvidesFile{achemso-aeacc4.cfg}
1572 [2025-04-11 v3.13j achemso configuration: ACS Env. Au]
1573 \def\acs@type@list{article,review,letter,perspective,supinfo}
1574 \setkeys{acs}{keywords = true}
1575 (/aeacc4)
1576 (*amacgu)

```

```

1577 \ProvidesFile{achemso-amacgu.cfg}
1578 [2025-04-11 v3.13j achemso configuration: ACS Mater. Au]
1579 \def\acs@type@list{article,review,letter,perspective,suppinfo}
1580 \setkeys{acs}{keywords = true}
1581 \</amacgu>
1582 \*amachv)
1583 \ProvidesFile{achemso-amachv.cfg}
1584 [2025-04-11 v3.13j achemso configuration: ACS Meas. Au]
1585 \def\acs@type@list{article,review,letter,perspective,suppinfo}
1586 \setkeys{acs}{keywords = true}
1587 \</amachv>
1588 \*anaccx)
1589 \ProvidesFile{achemso-anaccx.cfg}
1590 [2025-04-11 v3.13j achemso configuration: ACS Nanosci. Au]
1591 \def\acs@type@list{article,review,letter,perspective,suppinfo}
1592 \setkeys{acs}{keywords = true}
1593 \</anaccx>
1594 \*abmcb8)
1595 \ProvidesFile{achemso-abmcb8.cfg}
1596 [2025-04-11 v3.13j achemso configuration: ACS Bio. Med. Chem. Au]
1597 \def\acs@type@list{article,review,letter,perspective,suppinfo}
1598 \setkeys{acs}{keywords = true}
1599 \</abmcb8>
1600 \*aoiab5)
1601 \ProvidesFile{achemso-aoiab5.cfg}
1602 [2025-04-11 v3.13j achemso configuration: ACS Org. Inorg. Au]
1603 \def\acs@type@list{article,review,letter,perspective,suppinfo}
1604 \setkeys{acs}{keywords = true}
1605 \</aoiab5>
1606 \*apcach)
1607 \ProvidesFile{achemso-apcach.cfg}
1608 [2025-04-11 v3.13j achemso configuration: ACS Phys. Bio. Med. Chem. Au]
1609 \def\acs@type@list{article,review,letter,perspective,suppinfo}
1610 \setkeys{acs}{keywords = true}
1611 \</apcach>
1612 \*appccd)
1613 \ProvidesFile{achemso-appccd.cfg}
1614 [2025-04-11 v3.13j achemso configuration: ACS Polym. Au]
1615 \def\acs@type@list{article,review,letter,perspective,suppinfo}
1616 \setkeys{acs}{keywords = true}
1617 \</appccd>
1618 \*achre4)
1619 \ProvidesFile{achemso-achre4.cfg}
1620 [2025-04-11 v3.13j achemso configuration: Acc. Chem. Res.]
1621 \setkeys{acs}{biblabel = plain}
1622 \def\acs@type@list{article,suppinfo}
1623 \def\abstractname{Conspectus}
1624 \</achre4>
1625 \*aaembp)
1626 \ProvidesFile{achemso-aaembp.cfg}
1627 [2025-04-11 v3.13j achemso configuration: ACS Appl. Electron. Mater.]
1628 \def\acs@type@list{article,letter,suppinfo}
1629 \setkeys{acs}{keywords = true}
1630 \</aaembp>

```

```

1631 (*aaemcq)
1632 \ProvidesFile{achemso-aaemcq.cfg}
1633 [2025-04-11 v3.13j achemso configuration: ACS Appl. Energy Mater.]
1634 \def\acs@type@list{article,letter,suppinfo}
1635 \setkeys{acs}{keywords = true}
1636 (/aaemcq)
1637 (*aamick)
1638 \ProvidesFile{achemso-aamick.cfg}
1639 [2025-04-11 v3.13j achemso configuration: ACS Appl. Mater. Interfaces]
1640 \def\acs@type@list{article,letter,suppinfo}
1641 \setkeys{acs}{keywords = true}
1642 (/aamick)
1643 (*aanmf6)
1644 \ProvidesFile{achemso-aanmf6.cfg}
1645 [2025-04-11 v3.13j achemso configuration: ACS Appl. Nano Mater.]
1646 \def\acs@type@list{article,letter,suppinfo}
1647 \setkeys{acs}{keywords = true}
1648 (/aanmf6)
1649 (*aapmcd)
1650 \ProvidesFile{achemso-aapmcd.cfg}
1651 [2025-04-11 v3.13j achemso configuration: ACS Appl. Polym. Mater.]
1652 \def\acs@type@list{article,letter,suppinfo}
1653 \setkeys{acs}{keywords = true}
1654 (/aapmcd)
1655 (*aastgj)
1656 \ProvidesFile{achemso-aastgj.cfg}
1657 [2025-04-11 v3.13j achemso configuration: ACS Agri. Sci. Tech.]
1658 \def\acs@type@list{account,article,letter,retraction,review,viewpoint,suppinfo}
1659 \setkeys{acs}{keywords = true}
1660 (/aastgj)
1661 (*abseba)
1662 \ProvidesFile{achemso-abseba.cfg}
1663 [2025-04-11 v3.13j achemso configuration: ACS Biomater. Sci. Eng.]
1664 \setkeys{acs}{keywords = true}
1665 \def\acs@type@list{article,review,suppinfo}
1666 (/abseba)
1667 (*accacs)
1668 \ProvidesFile{achemso-accacs.cfg}
1669 [2025-04-11 v3.13j achemso configuration: ACS Catal.]
1670 \setkeys{acs}{keywords = true}
1671 \def\acs@type@list{article,letter,perspective,review,viewpoints,suppinfo}
1672 \SectionNumbersOff
1673 (/accacs)
1674 (*acscii)
1675 \ProvidesFile{achemso-acscii.cfg}
1676 [2025-04-11 v3.13j achemso configuration: ACS Central Sci.]
1677 \def\acs@type@list{article,review,suppinfo}
1678 \setkeys{acs}{doi = true}
1679 \SectionNumbersOff
1680 (/acscii)
1681 (*acbcct)
1682 \ProvidesFile{achemso-acbcct.cfg}
1683 [2025-04-11 v3.13j achemso configuration: ACS Chem. Biol.]
1684 \setkeys{acs}{

```

```

1685 biblabel = fullstop,
1686 biochem = true,
1687 super = false
1688 }
1689 \def\acs@type@list{article,letter,review,suppinfo}
1690 \SectionNumbersOff
1691 \</acbcct>
1692 \<acncdm>
1693 \ProvidesFile{achemso-acncdm.cfg}
1694 [2025-04-11 v3.13j achemso configuration: ACS Chem. Neurosci.]
1695 \def\acs@type@list{article,review,letter,suppinfo,viewpoint}
1696 \setkeys{acs}{
1697 biblabel = fullstop,
1698 biochem = true,
1699 keywords = true,
1700 super = false
1701 }
1702 \</acncdm>
1703 \<acsccc>
1704 \ProvidesFile{achemso-acscsc.cfg}
1705 [2025-04-11 v3.13j achemso configuration: ACS Combinatorial Sci.]
1706 \def\acs@type@list{article,letter,review,perspective,account,note,suppinfo}
1707 \setkeys{acs}{keywords = true}
1708 \SectionNumbersOff
1709 \</acsccc>
1710 \<aescq>
1711 \ProvidesFile{achemso-aescq.cfg}
1712 [2025-04-11 v3.13j achemso configuration: ACS Earth Space Chem.]
1713 \def\acs@type@list{article,suppinfo}
1714 \setkeys{acs}{keywords = true}
1715 \</aescq>
1716 \<aelccp>
1717 \ProvidesFile{achemso-aelccp.cfg}
1718 [2025-04-11 v3.13j achemso configuration: ACS Energy Lett.]
1719 \def\acs@type@list{letter,perspective,review,viewpoint,focus}
1720 \SectionNumbersOff
1721 \</aelccp>
1722 \<aecco>
1723 \ProvidesFile{achemso-aecco.cfg}
1724 [2025-04-11 v3.13j achemso configuration: ACS ES&T Eng.]
1725 \def\acs@type@list{article,feature,perspective,review,viewpoint}
1726 \setkeys{acs}{keywords = true}
1727 \</aecco>
1728 \<aewcaa>
1729 \ProvidesFile{achemso-aewcaa.cfg}
1730 [2025-04-11 v3.13j achemso configuration: ACS ES&T Water]
1731 \def\acs@type@list{article,feature,perspective,review,viewpoint}
1732 \setkeys{acs}{keywords = true}
1733 \</aewcaa>
1734 \<afsthl>
1735 \ProvidesFile{achemso-afsthl.cfg}
1736 [2025-04-11 v3.13j achemso configuration: ACS Food Sci. Tech.]
1737 \def\acs@type@list{account,article,perspective,retraction,review,viewpoint}
1738 \setkeys{acs}{keywords = true}

```

```

1739 </afsth>
1740 <*ascefj>
1741 \ProvidesFile{achemso-ascefj.cfg}
1742 [2025-04-11 v3.13j achemso configuration: ACS Infect. Dis.]
1743 \def\acs@type@list{article,letter,perspective,review,viewpoint,supinfo}
1744 \setkeys{acs}{keywords = true}
1745 \SectionsOff
1746 </ascefj>
1747 <*amlccd>
1748 \ProvidesFile{achemso-amlccd.cfg}
1749 [2025-04-11 v3.13j achemso configuration: ACS Macro Lett.]
1750 \def\acs@type@list{letter,supinfo}
1751 \SectionsOff
1752 \setlength{\acs@tocentry@height}{4cm}
1753 \setlength{\acs@tocentry@width}{8cm}
1754 </amlccd>
1755 <*amlcef>
1756 \ProvidesFile{achemso-amlcef.cfg}
1757 [2025-04-11 v3.13j achemso configuration: ACS Mater. Lett.]
1758 \def\acs@type@list{letter,perspective,review,viewpoint,focus}
1759 \SectionsOff
1760 </amlcef>
1761 <*amclct>
1762 \ProvidesFile{achemso-amclct.cfg}
1763 [2025-04-11 v3.13j achemso configuration: ACS Med. Chem. Lett.]
1764 \def\acs@type@list{article,letter,perspective,supinfo}
1765 \SectionNumbersOff
1766 </amclct>
1767 <*amrcda>
1768 \ProvidesFile{achemso-amrcda.cfg}
1769 [2025-04-11 v3.13j achemso configuration: Acc. Mater. Res.]
1770 \def\acs@type@list{account,article,editorial,retraction,supinfo}
1771 </amrcda>
1772 <*ancac3>
1773 \ProvidesFile{achemso-ancac3.cfg}
1774 [2025-04-11 v3.13j achemso configuration: ACS Nano]
1775 \setkeys{acs}{
1776   abbreviations = true,
1777   biblabel      = fullstop,
1778   etalmode     = truncate,
1779   maxauthors    = 20,
1780   keywords      = true
1781 }
1782 \def\acs@type@list{article,perspective,supinfo}
1783 \newcommand*\latin}[1]{\emph{#1}}
1784 \SectionNumbersOff
1785 </ancac3>
1786 <*anmafms>
1787 \ProvidesFile{achemso-anmafms.cfg}
1788 [2025-04-11 v3.13j achemso configuration: ACS Nano Med.]
1789 \setkeys{acs}{
1790   abbreviations = true,
1791   articletitle  = true,
1792   biblabel      = fullstop,

```



```

1793 etalmode      = truncate,
1794 maxauthors    = 20,
1795 keywords      = true
1796 }
1797 \def\acs@type@list{editorial,viewpoint,perspective,review,articlen,suppinfo}
1798 \anmafmm
1799 \*acsodf
1800 \ProvidesFile{achemso-acsofd.cfg}
1801 [2025-04-11 v3.13j achemso configuration: ACS Omega.]
1802 \def\acs@type@list{article}
1803 \*acsodf
1804 \*apchd5
1805 \ProvidesFile{achemso-apchd5.cfg}
1806 [2025-04-11 v3.13j achemso configuration: ACS Photon.]
1807 \def\acs@type@list{article,letter,perspective,review,suppinfo}
1808 \setkeys{acs}{keywords = true}
1809 \ifx\acs@manuscript\acs@manuscript@letter
1810 \SectionNumbersOff
1811 \fi
1812 \*apchd5
1813 \*aidcbc
1814 \ProvidesFile{achemso-aidcbc.cfg}
1815 [2025-04-11 v3.13j achemso configuration: ACS Sensors]
1816 \def\acs@type@list{article,letter,perspective,review,suppinfo}
1817 \setkeys{acs}{keywords = true}
1818 \SectionNumbersOff
1819 \*aidcbc
1820 \*ascecg
1821 \ProvidesFile{achemso-ascecg.cfg}
1822 [2025-04-11 v3.13j achemso configuration: ACS Sustainable Chem Eng.]
1823 \setkeys{acs}{
1824 biblabel = fullstop,
1825 keywords = true
1826 }
1827 \SectionNumbersOff
1828 \def\acs@type@list{article,feature,letter,perspective,review,suppinfo}
1829 \*ascecg
1830 \*asbcd6
1831 \ProvidesFile{achemso-asbcd6.cfg}
1832 [2025-04-11 v3.13j achemso configuration: ACS Synth. Biol.]
1833 \setkeys{acs}{
1834 abbreviations = true,
1835 biblabel      = fullstop,
1836 biochem       = true,
1837 keywords      = true,
1838 super         = false
1839 }
1840 \def\acs@type@list{article,letter,note,tutorial,review,suppinfo}
1841 \*asbcd6
1842 \*ancham
1843 \ProvidesFile{achemso-ancham.cfg}
1844 [2025-04-11 v3.13j achemso configuration: Anal. Chem.]
1845 \def\acs@type@list{article,note,suppinfo}
1846 \SectionNumbersOff

```

```

1847 </ancham>
1848 <*bichaw>
1849 \ProvidesFile{achemso-bichaw.cfg}
1850 [2025-04-11 v3.13j achemso configuration: Biochemistry]
1851 \setkeys{acs}{
1852   abbreviations = true,
1853   biblabel      = brackets,
1854   biochem       = true,
1855 }
1856 \SectionNumbersOff
1857 \def\acs@maketitle@extras@hook{%
1858   \par
1859   \acs@title@short@print
1860 }
1861 \g@addto@macro{\maketitle}{\newpage}

```

\acs@author@fnsymbol Some changes to do with footnotes: symbols are different and symbol number one can only be used for the title.

```

1862 \def\acs@author@fnsymbol#1{%
1863   \ensuremath{%
1864     \ifcase #1 * \or
1865       \dagger \or
1866       \ddagger \or
1867       \S \or
1868       \parallel \or
1869       \perp \or
1870       \P \or
1871       \|\ \or
1872       \bot \or
1873       \# \or
1874       @ \or
1875       \triangle \or
1876       \nabla \else
1877         #1%
1878     \fi
1879   }%
1880 }
1881 \def\@maketitle@title@hook{%
1882   \ifnum\acs@footnote@cnt>\@ne
1883     \else
1884       \global\acs@footnote@cnt\@ne
1885     \fi
1886 }

1887 </bichaw>
1888 <*bcches>
1889 \ProvidesFile{achemso-bcches.cfg}
1890 [2025-04-11 v3.13j achemso configuration: Bioconjugate Chem.]
1891 \setkeys{acs}{
1892   biochem = true,
1893   super   = false
1894 }
1895 \SectionNumbersOff
1896 </bcches>

```

```

1897 (*bomaf6)
1898 \ProvidesFile{achemso-bomaf6.cfg}
1899 [2025-04-11 v3.13j achemso configuration: Biomacromolecules]
1900 \def\acs@type@list{article,comment,communication,note,review,supinfo}
1901 \SectionNumbersOff
1902 \AtEndOfClass{\SectionsOn}
1903 (/bomaf6)
1904 (*crtoec)
1905 \ProvidesFile{achemso-crtoec.cfg}
1906 [2025-04-11 v3.13j achemso configuration: Chem. Res. Toxicol.]
1907 \setkeys{acs}{
1908   abbreviations = true,
1909   biochem       = true,
1910   keywords      = true
1911 }
1912 \def\acs@maketitle@extras@hook{%
1913   \par
1914   \acs@title@short@print
1915 }
1916 \def\acs@type@list{%
1917   article,perspective,profile,review,supinfo%
1918 }
1919 \SectionNumbersOff
1920 (/crtoec)
1921 (*chreay)
1922 \ProvidesFile{achemso-chreay.cfg}
1923 [2025-04-11 v3.13j achemso configuration: Chem. Rev.]
1924 \setkeys{acs}{
1925   etalmode      = truncate,
1926   maxauthors    = 10
1927 }
1928 \def\acs@type@default{review}
1929 \def\acs@type@list{review}

The references section is numbered in Chem. Rev.

1930 \floatstyle{plaintop}
1931 \restylefloat{scheme}
1932 \floatstyle{plain}
1933 \def\bibsection{\acs@section{\refname}}
1934 (/chreay)
1935 (*cmatex)
1936 % \begin{macrocode}
1937 \ProvidesFile{achemso-cmatex.cfg}
1938 [2025-04-11 v3.13j achemso configuration: Chem. Mater.]
1939 \setkeys{acs}{keywords = true}
1940 \SectionNumbersOff
1941 \ifx\acs@manuscript\acs@manuscript@communication
1942   \AbstractOff
1943   \SectionsOff
1944 \fi
1945 (/cmatex)
1946 (*cgdefu)
1947 \ProvidesFile{achemso-cgdefu.cfg}
1948 [2025-04-11 v3.13j achemso configuration: Cryst. Growth Des.]

```

```

1949 \def\acs@type@list{%
1950   article,communication,perspective,suppinfo%
1951 }
1952 \SectionNumbersOff
1953 \ifx\acs@manuscript\acs@manuscript@communication
1954   \SectionsOff
1955 \fi
1956 \setlength{\acs@tocentry@height}{8.9 cm}
1957 \setlength{\acs@tocentry@width}{4.6 cm}
1958 \cgdefu
1959 \*enfuem
1960 \ProvidesFile{achemso-enfuem.cfg}
1961   [2025-04-11 v3.13j achemso configuration: Energy Fuels]
1962 \def\acs@type@list{article,review,suppinfo}
1963 \SectionNumbersOff
1964 \enfuem
1965 \*esthag
1966 \ProvidesFile{achemso-esthag.cfg}
1967   [2025-04-11 v3.13j achemso configuration: Environ. Sci. Technol.]
1968 \def\acs@type@list{article,feature,perspective,review,suppinfo}
1969 \SectionNumbersOff
1970 \setkeys{acs}{maxauthors = 0, keywords = true}
1971 \esthag
1972 \*estlcu
1973 \ProvidesFile{achemso-estlcu.cfg}
1974   [2025-04-11 v3.13j achemso configuration: Environ. Sci. Technol. Lett.]
1975 \def\acs@type@list{letter,review,suppinfo}
1976 \SectionNumbersOff
1977 \estlcu
1978 \*iecred
1979 \ProvidesFile{achemso-iecred.cfg}
1980   [2025-04-11 v3.13j achemso configuration: Ind. Eng. Chem. Res.]
1981 \setkeys{acs}{biblabel = brackets}
1982 \SectionNumbersOff
1983 \iecred
1984 \*inoraj
1985 \ProvidesFile{achemso-inoraj.cfg}
1986   [2025-04-11 v3.13j achemso configuration: Inorg. Chem.]
1987 \SectionNumbersOff
1988 \ifx\acs@manuscript\acs@manuscript@communication
1989   \AbstractOff
1990   \SectionsOff
1991 \fi
1992 \setkeys{acs}{doi = true}
1993 \inoraj
1994 \*jaaucr
1995 \ProvidesFile{achemso-jaaucr.cfg}
1996   [2025-04-11 v3.13j achemso configuration: JACS Au]
1997 \def\acs@type@list{spotlight,account,article,communication,letter,perspective,suppinfo}
1998 \jaaucr
1999 \*jafcau
2000 \ProvidesFile{achemso-jafcau.cfg}
2001   [2025-04-11 v3.13j achemso configuration: J. Agric. Food Chem.]
2002 \setkeys{acs}{keywords = true}

```

```

2003 \def\acs@type@list{article,supinfo}
2004 \SectionNumbersOff
2005 </jafcau>
2006 < *jceda8 >
2007 \ProvidesFile{achemso-jceda8.cfg}
2008 [2025-04-11 v3.13j achemso configuration: J. Chem. Ed.]
2009 \setkeys{acs}{keywords = true}
2010 \SectionNumbersOff
2011 \def\acs@type@list{article,supinfo}
2012 \SectionNumbersOff
2013 </jceda8 >
2014 < *jceaax >
2015 \ProvidesFile{achemso-jceaax.cfg}
2016 [2025-04-11 v3.13j achemso configuration: J. Chem. Eng. Data]
2017 \def\acs@type@list{article,supinfo}
2018 \def\refname{Literature Cited}
2019 \SectionNumbersOff
2020 </jceaax >
2021 < *jcisd8 >
2022 \ProvidesFile{achemso-jcisd8.cfg}
2023 [2025-04-11 v3.13j achemso configuration: J. Chem. Inf. Model.]
2024 \def\acs@type@list{article,supinfo}
2025 \SectionNumbersOff
2026 </jcisd8 >
2027 < *jctcce >
2028 \ProvidesFile{achemso-jctcce.cfg}
2029 [2025-04-11 v3.13j achemso configuration: J. Chem. Theory Comput.]
2030 \def\acs@type@list{article,supinfo}
2031 \setkeys{acs}{maxauthors = 0}
2032 </jctcce >
2033 < *jmcmar >
2034 \ProvidesFile{achemso-jmcmar.cfg}
2035 [2025-04-11 v3.13j achemso configuration: J. Med. Chem.]
2036 \def\acs@type@list{article,letter,perspective,supinfo}
2037 \SectionNumbersOff
2038 \setlength{\acs@tocentry@height}{4.45cm}
2039 \setlength{\acs@tocentry@width}{8.25cm}
2040 </jmcmar >
2041 < *jnprdf >
2042 \ProvidesFile{achemso-jnprdf.cfg}
2043 [2025-04-11 v3.13j achemso configuration: J. Nat. Prod.]
2044 \renewcommand*{\abstractname}{ABSTRACT}
2045 \renewcommand*{\acknowledgementname}{ACKNOWLEDGEMENT}
2046 \renewcommand*{\suppinfofname}{ASSOCIATED CONTENT}
2047 \SectionNumbersOff
2048 \renewcommand*{\acs@abstract}{%
2049 \quotation
2050 \textbf{\abstractname :}}%
2051 }
2052 \AbstractOn
2053 \ifx\acs@manuscript\acs@manuscript@communication
2054 \AbstractOff
2055 \SectionsOff
2056 \fi

```

```

2057 \def\refname{REFERENCES}
2058 \captionsetup{
2059   labelfont = bf,
2060   labelsep   = period
2061 }
2062 </jnprdf>
2063 <*joceah>
2064 \ProvidesFile{achemso-joceah.cfg}
2065 [2025-04-11 v3.13j achemso configuration: J. Org. Chem.]
2066 \ifx\acs@manuscript\acs@manuscript@communication
2067   \AbstractOff
2068   \SectionsOff
2069 \fi
2070 \floatstyle{plaintop}
2071 \restylefloat{scheme}
2072 \floatstyle{plain}
2073 \renewcommand*\acs@type@list{article,communication,note,perspective,review,supinfo}
2074 </joceah>

2075 <*jpcafh>
2076 \ProvidesFile{achemso-jpcafh.cfg}
2077 [2025-04-11 v3.13j achemso configuration: J. Phys. Chem. A]
2078 \def\acs@type@list{article,supinfo}
2079 \setkeys{acs}{
2080   etalmode      = truncate,
2081   maxauthors    = 10
2082 }
2083 \SectionNumbersOff
2084 \captionsetup[table]{labelfont=bf,textfont=bf}

Title

2085 \g@addto@macro{\maketitle}{\newpage}
2086 </jpcafh>
2087 <*jpcbfk>
2088 \ProvidesFile{achemso-jpcbfk.cfg}
2089 [2025-04-11 v3.13j achemso configuration: J. Phys. Chem. B]
2090 \def\acs@type@list{article,supinfo}
2091 \setkeys{acs}{
2092   etalmode      = truncate,
2093   maxauthors    = 10
2094 }
2095 \SectionNumbersOff
2096 \captionsetup[table]{labelfont=bf,textfont=bf}
2097 \g@addto@macro{\maketitle}{\newpage}
2098 </jpcbfk>
2099 <*jpccck>
2100 \ProvidesFile{achemso-jpccck.cfg}
2101 [2025-04-11 v3.13j achemso configuration: J. Phys. Chem. C]
2102 \def\acs@type@list{article,supinfo}
2103 \setkeys{acs}{
2104   etalmode      = truncate,
2105   maxauthors    = 10
2106 }
2107 \SectionNumbersOff
2108 \captionsetup[table]{labelfont=bf,textfont=bf}

```

```

2109 \g@addto@macro{\maketitle}{\newpage}
2110 </jpcck>

2111 (*jplcd)
2112 \ProvidesFile{achemso-jplcd.cfg}
2113 [2025-04-11 v3.13j achemso configuration: J. Phys. Chem. Lett.]
2114 \setkeys{acs}{
2115   etalmode = truncate,
2116   maxauthors = 10
2117 }
2118 \def\acs@type@default{letter}
2119 \def\acs@type@list{letter}
2120 \SectionNumbersOff
2121 \captionsetup[table]{labelfont=bf,textfont=bf}
2122 \g@addto@macro{\maketitle}{\newpage}
2123 \renewcommand{\acs@tocentry@print}[1]{%
2124   \gdef\acs@tocentry@text{#1}%
2125 }
2126 \renewcommand*{\acs@abstract@extras}{%
2127   \begingroup
2128     \acs@tocentry@print@aux
2129   \endgroup
2130   \acs@keywords@print
2131   \newpage
2132 }
2133 \setlength\acs@tocentry@height{2in}
2134 \setlength\acs@tocentry@width{2in}
2135 </jplcd>
2136 (*jprobs)
2137 \ProvidesFile{achemso-jprobs.cfg}
2138 [2025-04-11 v3.13j achemso configuration: J. Proteome Res.]
2139 \setkeys{acs}{keywords = true}
2140 \def\acs@type@list{article,review,suppinfo}
2141 \SectionNumbersOff
2142 </jprobs>

```

The *J. Am. Chem. Soc.* configuration is rather more complicated as there is the need to construct a “galley-like” layout for communications.

```

2143 (*jacsat)
2144 \ProvidesFile{achemso-jacsat.cfg}
2145 [2025-04-11 v3.13j achemso configuration: J. Am. Chem. Soc.]
2146 \SectionNumbersOff
2147 \ifx\acs@manuscript\acs@manuscript@communication\else
2148   \expandafter\endinput
2149 \fi

```

Everything from here onward applies only to communications. Some adjustments are now made using the existing tools.

```

2150 \setkeys{acs}{
2151   email = true,
2152   layout = twocolumn
2153 }
2154 \SectionsOff
2155 \acs@layout@nine

```

`abstract (env.)` The abstract appears at the start of the document, with lines around it.s

```
2156 \renewenvironment{abstract}{%
2157   \hrule
2158   \vspace{2 mm}%
2159   \sffamily
2160   \noindent
2161   \emph{\textbf{Abstract:}}}%
2162 }{%
2163   \vspace{2 mm}%
2164   \hrule
2165   \vspace{6 mm}%
2166 }
```

`\acksizesize` To keep things logical, the size macros are given names related to their function.

`\affilsize` Some of these are new, some are defined in the class.

```
\authorsize 2167 \def\affilsize{%
\emailsize 2168   \@setfontsize\affilsize\@ixpt\@xpt
  \capsize 2169 }
\refsize 2170 \def\acksizesize{%
\suppsize 2171   \@setfontsize\acksizesize\@ixpt\@xipt
\titlesize 2172 }
2173 \def\authorsize{%
2174   \@setfontsize\authorsize{10.5}{12.5}%
2175 }
2176 \newcommand*\capsizesize{%
2177   \@setfontsize\capsizesize\@viiipt\@ixpt
2178 }
2179 \def\emailsize{%
2180   \@setfontsize\emailsize\@viiipt{15}%
2181 }
2182 \newcommand*\refsize{%
2183   \@setfontsize\refsize{7.5}{7.5}%
2184 }
2185 \def\suppsizesize{%
2186   \@setfontsize\suppsizesize{8.5}{10.5}%
2187 }
2188 \def\titlesizesize{%
2189   \@setfontsize\titlesizesize\@xiipt{13}%
2190 }
2191 \let\footnotesizesize\refsize
2192 \let\captionfont\capsizesize
```

`\emailfont` A slight font change.

```
2193 \def\emailfont{\sffamily}
```

`\ps@plain` The header styles are done the hard way, to keep down the number of packages

`\ps@jacs` loaded.

```
2194 \def\ps@plain{%
2195   \let\@mkboth\@gobbletwo
2196   \let\@oddhead\@empty
2197   \def\@oddfoot{%
2198     \resetfont
2199     \sffamily
```



```

2200     \textbf{\thepage}%
2201     \hfil
2202   }%
2203   \let\@evenhead\@empty
2204   \let\@evenfoot\@oddfont
2205 }
2206 \def\ps@acs{%
2207   \def\@oddfont{%
2208     \reset@font
2209     \sffamily
2210     \textbf{\thepage}%
2211     \hfil
2212   }%
2213   \def\@evenfoot{%
2214     \reset@font
2215     \hfil
2216     \sffamily
2217     \textbf{\thepage}%
2218   }%
2219   \def\@oddhead{}%
2220   \let\@evenhead\@oddhead
2221 }
2222 \pagestyle{acs}

```

`\acs@space@pre@title` Length adjustments for the title.

```

\acs@space@post@title 2223 \setlength\acs@space@pre@title{16mm}
\acs@space@post@author 2224 \setlength\acs@space@post@title{0mm}
\acs@space@post@address 2225 \setlength\acs@space@post@author{0mm}
\acs@space@post@email 2226 \setlength\acs@space@post@address{0mm}
2227 \setlength\acs@space@post@email{-1mm}
2228 \setlength\acs@maketitle@width{152.4mm}

```

`\acs@contact@details` Contact details are different here.

```

2229 \def\acs@contact@details{%
2230   Received \today; E-mail: \acs@email@list
2231 }

```

`\acs@maketitle@extras` No keywords or abbreviations for *J. Am. Chem. Soc.*.

```

2232 \let\acs@maketitle@extras\relax

```

Getting the floats correct is a difficult task “by hand”; using the caption package makes this a lot easier.

```

2233 \floatstyle{plaintop}
2234 \restylefloat{scheme}
2235 \floatstyle{plain}
2236 \DeclareCaptionLabelSeparator{perquad}{.\quad}
2237 \captionsetup{
2238   singlelinecheck = off,
2239   labelfont       = {bf,it,sf},
2240   textfont        = sf,
2241   labelsep        = perquad
2242 }
2243 \captionsetup[figure]{textfont=rm}

```

\acs@table A patch or \table.

```
\table 2244 \newcommand*\acs@table{}
2245 \let\acs@table\table
2246 \def\table{%
2247   \capsize
2248   \acs@table
2249 }
```

The bibliography has to be adjusted.

```
2250 \AtBeginDocument{%
2251   \def\bibsection{%
2252     \@startsection
2253     {section}
2254     {1}
2255     {\z@}{\z@}{2.5mm}%
2256     {\normalfont\acksize\bfseries}
2257     {\hrule\nobreak\vspace{1.2mm}\noindent\refname}%
2258   }%
2259   \let\bibfont\refsize
2260   \setlength{\bibhang}{0.61cm}%
2261   \setlength{\bibsep}{0mm}%
2262 }
2263 </jacsat>
2264 <*langd5>
2265 \ProvidesFile{achemso-langd5.cfg}
2266 [2025-04-11 v3.13j achemso configuration: Langmuir]
2267 \def\acs@type@list{article,letter,supinfo}
2268 \SectionNumbersOff
2269 </langd5>
2270 <*mamobx>
2271 \ProvidesFile{achemso-mamobx.cfg}
2272 [2025-04-11 v3.13j achemso configuration: Macromolecules]
2273 \SectionNumbersOff
2274 \setkeys{acs}{doi = true}
2275 </mamobx>
2276 <*mpohbp>
2277 \ProvidesFile{achemso-mpohbp.cfg}
2278 [2025-04-11 v3.13j achemso configuration: Mol. Pharm.]
2279 \setkeys{acs}{keywords = true}
2280 \def\acs@type@list{article,supinfo}
2281 \SectionNumbersOff
2282 </mpohbp>
2283 <*nalefd>
2284 \ProvidesFile{achemso-nalefd.cfg}
2285 [2025-04-11 v3.13j achemso configuration: Nano Lett.]
2286 \setkeys{acs}{keywords = true}
2287 \def\acs@type@default{letter}
2288 \def\acs@type@list{letter}
2289 \SectionNumbersOff
2290 </nalefd>
2291 <*orlef7>
2292 \ProvidesFile{achemso-orlef7.cfg}
2293 [2025-04-11 v3.13j achemso configuration: Org. Lett.]
2294 \def\acs@type@default{communication}
```

```

2295 \def\acs@type@list{communication}
2296 \SectionNumbersOff
2297 \setkeys{acs}{layout = twocolumn}
2298 \RequirePackage{xcolor}
2299 \definecolor{orglett}{RGB}{128,0,0}
2300 </orlef7>
2301 <*oprdfk>
2302 \ProvidesFile{achemso-oprdfk.cfg}
2303 [2025-04-11 v3.13j achemso configuration: Org. Proc. Res. Dev.]
2304 \def\acs@type@list{article,highlight,review,supinfo}
2305 \SectionNumbersOff
2306 </oprdfk>
2307 <*orgnd7>
2308 \ProvidesFile{achemso-orgnd7.cfg}
2309 [2025-04-11 v3.13j achemso configuration: Organometallics]
2310 \SectionNumbersOff
2311 </orgnd7>

```

9 Index

Numbers written in *italics* 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.

Symbols	\@esphack 206, 210	\@maketitle@title@hook <u>597</u> , 1881
\! 1524	\@evenfoot 2204, 2213	\@mciteNatbibCiteCmdList 1423, 1424, 1428
\# 833, 1873	\@evenhead 2203, 2220	\@mciteSubRef 1431
\. 1522, 1526	\@firstofone 123, 127	\@mcitereflabelprefix 1431
\? 1523	\@firstoftwo 28, 393, 501, 1464	\@minus 1344, 1346, 1349, 1358, 1360
\@Esphack 1155	\@floatboxreset 1041, 1042	\@mkboth 2195
\@abbreviations <u>546</u> , 557, 559	\@fnsymbol 611, 664, 879, 880, 896	\@namedef 144
\@address@i 853	\@for 770, 1285	\@nameuse 38, 103, 117, 688, 738, 819, 863, 873, 903, 923, 987, 993
\@affil@i 889	\@gobble 325, 1201	\@ne 343, 346, 370, 400, 418, 423, 439, 481, 507, 684, 702, 723, 745, 755, 848, 860, 861, 867, 868, 883, 887, 890, 899, 910, 919, 942, 945, 946, 981, 1882, 1884
\@afterindentfalse 1060, 1071	\@gobbletwo 2195	\@nil 1464, 1466, 1501, 1514
\@afterindenttrue 1059, 1070	\@ifclassloaded 10	\@oddfont 2197, 2204, 2207
\@arabic 1382, 1383, 1384	\@ifpackageloaded 1450, 1544	\@oddfont 2196, 2219, 2220
\@auxout 284	\@ifstar 1063, 1074, 1078	
\@bsphack 174, 1145	\@ifundefined 148, 451	
\@checkend 1205	\@ignorefalse 1157	
\@citex 223, 224, 1531, 1532	\@ixpt 1279, 1340, 2168, 2171, 2177	
\@currenvr 1154, 1186, 1191, 1193, 1323	\@keywords <u>546</u> , 564, 566	
\@dblarg 1063, 1064	\@listI 1343, 1357	
\@empty 332, 557, 564, 658, 675, 694, 962, 965, 971, 985, 1002, 1203, 1370, 1510, 2196, 2203	\@listi 1343, 1357	
	\@m 1063, 1526	
	\@makeother 183	
	\@maketitle <u>597</u>	

<code>\@onelevel@sanitize</code>	192	1285, 1286, 1322,	
<code>\@onlypreamble</code>	....	1323, 1392, 1393,	
	..	1396, 1397, 1410,	
		1412, 1424, 1425	
			<code>\@tempb</code>
			402, 404, 509,
			511, 960, 963,
			965, 967, 1411, 1412
<code>\@plus</code>	.....	1344,	<code>\@tempcnta</code>
		1345, 1346, 1349,	....
		1358, 1359, 1360	390,
<code>\@restonecolfalse</code>	.	400, 403, 407,	
	.....	415, 427, 440,	
		453, 458, 468,	
<code>\@restonecoltrue</code>	..	472, 479, 496,	
	.....	507, 510, 514,	
		677, 684, 688,	
<code>\@roman</code>	344, 347, 371,	697, 703, 710,	
	374, 377, 403,	716, 734, 738,	
	424, 426, 441,	747, 765, 771,	
	444, 447, 451,	782, 788, 857,	
	452, 455, 457,	859, 860, 863,	
	478, 482, 484,	865, 866, 867,	
	510, 521, 530,	869, 873, 881,	
	539, 688, 716,	890, 899, 900,	
	734, 738, 746,	903, 905, 919,	
	765, 771, 782,	920, 930, 942,	
	788, 863, 869,	943, 944, 951,	
	873, 903, 911,	979, 981, 982,	
	923, 944, 951,	983, 984, 987, 993	
	983, 984, 987, 993	<code>\@tempcntb</code>	. 416, 423,
<code>\@secondoftwo</code>	.....		424, 426, 430,
	.		469, 882, 910,
			911, 914, 923,
<code>\@secpenalty</code>	.		931, 933, 945, 946
<code>\@sect</code>	.....		<code>\@tempkipa</code>
<code>\@setfontsize</code>	.....		.....
			1058, 1060, 1062,
			1069, 1071, 1073
<code>\@ssect</code>	.....		<code>\@tempswafalse</code>
		
<code>\@startsection</code>	1055,		389, 495, 1284
	1066, 1090, 1094,		<code>\@tempwatrue</code>
	1113, 1256, 2252		....
<code>\@tempa</code>	.....		405, 512, 1287
			<code>\@thanks</code>
		
			655,
			658, 661, 662, 675
			<code>\@title</code>
		
			329, 613
			<code>\@unusedoptionlist</code>
			1370
			<code>\@viiipt</code>
			1279, 2177, 2180
			<code>\@xiipt</code>
			. 1353, 1356, 2189
			<code>\@xipt</code>
		
			1337, 2171
			<code>\@xpt</code>
			... 1353, 1356, 2168
			<code>\@</code>
		
			650
			<code>\{</code>
		
			185
			<code>\}</code>
		
			186
			<code>\^</code>
		
			197
			<code>\ </code>
		
			831, 1871
			A
			<code>\abbreviations</code>
		
			546
			<code>\abovecaptionskip</code>
			1348
			<code>\abovedisplaysshortskip</code>
		
			1345, 1359
			<code>\abovedisplayskip</code>
			.
		
			1344,
			1347, 1358, 1361
			<code>\abstract</code>
			1132, 1167, 1172
			<code>abstract (env.)</code>
			... 2156
			<code>\abstractname</code>
		
			.. 1623, 2044, 2050
			<code>\AbstractOff</code>
		
			5,
			1166, 1299, 1942,
			1989, 2054, 2067
			<code>\AbstractOn</code>
			5, 1166, 2052
			<code>acknowledgement (env.)</code>
		
			5, 1118, 1307
			<code>\acknowledgementname</code>
		
			1119, 1124,
			1327, 1329, 2045
			<code>\acksizes</code>
		
			1325,
			1335, 2167, 2256
			<code>\acs@abbreviations@print</code>
		
			556, 1014
			<code>\acs@abstract</code>
		
			.. 1131, 1172, 2048
			<code>\acs@abstract@end</code>
			.
		
			1131, 1168
			<code>\acs@abstract@extras</code>
		
			1009, 2126
			<code>\acs@abstract@iffalse</code>
		
			1131
			<code>\acs@abstract@print</code>
			1221
			<code>\acs@abstract@start</code>
		
			1131, 1167
			<code>\acs@abstract@text</code>
		
			1222, 1236
			<code>\acs@activate@biblabel</code>
		
			108
			<code>\acs@address@list</code>
			.
		
			631, 839
			<code>\acs@address@list@auxi</code>
		
			839
			<code>\acs@address@list@auxii</code>
		
			839
			<code>\acs@affil@alt@cnt</code>
		
			337,
			481, 482, 485,
			497, 514, 726,
			754, 849, 886, 893
			<code>\acs@affil@alt@list</code>
		
			894, 909

<code>\acs@affil@alt@lista@aux</code>	475, 478, 484,	<code>\acs@bibliography</code>	.
.....	909	.....	168, 291
<code>\acs@affil@cnt</code>	....	<code>\acs@bibliographystyle</code>	.....
.....	337, 346,	.....	1441
349, 370, 371,	530, 538, 539,	<code>\acs@bibstyle</code>	1434, 1445
374, 377, 407,	599, 678, 697,	<code>\acs@collect</code>	. 1180, 1276
418, 425, 439,	702, 703, 709,	<code>\acs@collect@aux</code>	. 1180
440, 441, 444,	710, 914, 943, 982	<code>\acs@collect@begins</code>	.... 1178, 1189,
447, 723, 745,	<code>\acs@author@fnsymbol</code>	.....	1199, 1201, 1203
789, 840, 848,	.....	611, 664,	<code>\acs@collect@begins@</code>
859, 866, 883, 905	722, 751, 759,	862, 872, 880, 1862	<code>\acs@collect@body</code>
<code>\acs@affil@ifdup</code>	....	1180	.....
.....	367, 386, 436	<code>\acs@collect@content</code>	.....
<code>\acs@affil@ifdup@aux</code>	.....	386, 417, 470	1176, 1176, 1184,
.....	386, 417, 470	<code>\acs@author@fnsymbol@loop</code>	1192, 1195, 1210
<code>\acs@affil@list</code>	... 877	<code>\acs@author@fnsymbol@loop@aux@i</code>	.....
<code>\acs@affil@list@aux</code>	877	.....	797
<code>\acs@affil@marker@cnt</code>	.. 340, 746, 748,	<code>\acs@author@fnsymbol@loop@aux@ii</code>	.....
751, 755, 756,	759, 772, 773,	.....	1177, 1188
759, 772, 773,	777, 787, 789,	<code>\acs@author@fnsymbol@loop@aux@iii</code>	.....
777, 787, 789,	790, 794, 858,	.....	797
790, 794, 858,	861, 862, 868,	<code>\acs@author@fnsymbol@loop@aux@iv</code>	.....
861, 862, 868,	872, 887, 888,	.....	1176, 1181, 1182,
872, 887, 888,	889, 900, 901,	<code>\acs@author@fnsymbol@loop@aux@v</code>	.....
889, 900, 901,	902, 920, 921, 922	.....	797
902, 920, 921, 922	<code>\acs@affil@swap</code>	.. 682, 721, 749,	1185, 1188, 1219
<code>\acs@affil@swap</code>	368, 412	750, 757, 758,	<code>\acs@author@fnsymbol@loop@aux@vi</code>
<code>\acs@affil@swap@aux</code>	412	774, 775, 791, 792	.....
<code>\acs@alsoaffil@find</code>	434	<code>\acs@author@list</code>	624, 676
<code>\acs@altaffil@foot@aux</code>	.....	<code>\acs@author@list@and</code>	.....
.....	912, 918	.....	686, 701
<code>\acs@altaffil@ifdup</code>	.....	<code>\acs@author@list@comma</code>	.....
.....	477, 493	.....	689, 701
<code>\acs@altaffil@ifdup@aux</code>	.....	<code>\acs@author@list@main</code>	.....
.....	493	.....	679, 682
<code>\acs@author@affil</code>	.	<code>\acs@author@star</code>	690, 715
.....	691, 732	<code>\acs@author@star@aux</code>	715
<code>\acs@author@affil@also</code>	.....	<code>\acs@autonote</code>	.... 213
.....	692, 764	<code>\acs@bib@file</code>	....
<code>\acs@author@affil@also@aux</code>	.....	.....	201, 247,
.....	764	.....	260, 261, 265, 288
<code>\acs@author@affil@alt</code>	.....	<code>\acs@bib@message</code>	247, 261
.....	693, 781	<code>\acs@bib@name</code>	.. 247, 260
<code>\acs@author@affil@alt@aux</code>	.....	<code>\acs@bib@write</code>	.... 253
.....	781	<code>\acs@bib@write@aux</code>	253
<code>\acs@author@affil@aux</code>	.....	<code>\acs@biblabel@brackets</code>	.....
.....	732	.....	129
<code>\acs@author@cnt</code>	....	<code>\acs@biblabel@fullstop</code>	.....
.....	337, 343,	.....	129
344, 348, 366,	430, 435, 451,	<code>\acs@biblabel@period</code>	129
430, 435, 451,	452, 455, 457,	<code>\acs@biblabel@plain</code>	129
452, 455, 457,			

<code>\acs@keywords@print</code>	<code>\acs@number@list@aux@i</code>	<code>\acs@tocentry@width</code>
... 556, 1018, 2130	..... 957	..... 1264,
<code>\acs@killabstract</code> 1299	<code>\acs@number@list@aux@ii</code>	1273, 1275, 1753,
<code>\acs@killsecs</code> 1300	..... 957	1957, 2039, 2134
<code>\acs@layout</code> 80, 1393, 1397	<code>\acs@par</code> 1305, 1332	<code>\acs@type@check</code> ...
<code>\acs@layout@nine</code> ..	<code>\acs@section</code> .....	..... 1281, 1371
..... 1337, 2155	1048, 1104, 1119,	<code>\acs@type@default</code> .
<code>\acs@layout@shared</code>	1122, 1127, 1228,	1281, 1302, 1928,
.. 1307, 1394, 1398	1257, 1329, 1933	2118, 2287, 2294
<code>\acs@layout@ten</code> .. 1337	<code>\acs@sections@none</code>	<code>\acs@type@list</code>
<code>\acs@maketitle@extras</code>	..... 1077,	..... 1281, 1303,
..... 1022, 2232	1098, 1099, 1100	1561, 1567, 1573,
<code>\acs@maketitle@extras@hook</code>	<code>\acs@sections@none@aux</code>	1579, 1585, 1591,
.. 1022, 1857, 1912	..... 1077	1597, 1603, 1609,
<code>\acs@maketitle@suppinfo</code>	<code>\acs@setkeys</code> 1298	1615, 1622, 1628,
..... 613, 648	<code>\acs@space@post@address</code>	1634, 1640, 1646,
<code>\acs@maketitle@width</code>	.... 575, 634, 2223	1652, 1658, 1665,
.... 575, 606, 2228	<code>\acs@space@post@author</code>	1671, 1677, 1689,
<code>\acs@manuscript</code> ...	.... 575, 627, 2223	1695, 1706, 1713,
.. 80, 649, 1286,	<code>\acs@space@post@email</code>	1719, 1725, 1731,
1292, 1295, 1372,	.... 575, 642, 2223	1737, 1743, 1750,
1375, 1379, 1809,	<code>\acs@space@post@title</code>	1758, 1764, 1770,
1941, 1953, 1988,	.... 575, 619, 2223	1782, 1797, 1802,
2053, 2066, 2147	<code>\acs@space@pre@title</code>	1807, 1816, 1828,
<code>\acs@manuscript@communication</code>	.... 575, 604, 2223	1840, 1845, 1900,
..... 138,	<code>\acs@startsection</code> .	1916, 1929, 1949,
1941, 1953, 1988,	..... 1056, 1094	1962, 1968, 1975,
2053, 2066, 2147	<code>\acs@startsection@alt</code>	1997, 2003, 2011,
<code>\acs@manuscript@letter</code>	..... 1067, 1090	2017, 2024, 2030,
..... 138, 1809	<code>\acs@startsection@orig</code>	2036, 2073, 2078,
<code>\acs@manuscript@note</code>	.. 1048, 1113, 1256	2090, 2102, 2119,
..... 138, 1372	<code>\acs@subsection</code> ...	2140, 2267, 2280,
<code>\acs@manuscript@review</code>	..... 1048, 1105	2288, 2295, 2304
..... 138, 1375	<code>\acs@subsubsection</code>	<code>\acs@validtype</code> ... 1301
<code>\acs@manuscript@suppinfo</code>	..... 1048, 1106	<code>\acs@warning</code> 5, 22, 36,
.... 138, 649, 1379	<code>\acs@table</code>	99, 113, 354, 360,
<code>\acs@maxauthors</code> . 80, 278	..... 2244	382, 462, 489,
<code>\acs@niib@after@text</code>	<code>\acs@title@footnote</code>	524, 533, 542,
..... 154,	..... 612, 653	600, 736, 843,
162, 172, 207, 211	<code>\acs@title@footnote@check</code>	934, 1085, 1141,
<code>\acs@niib@create</code> ..	..... 614, 653	1291, 1364, 1444
.... 143, 313, 1451	<code>\acs@title@short</code> 329, 572	<code>\active</code> 1136, 1146
<code>\acs@niib@no@write</code>	<code>\acs@title@short@print</code>	<code>\addpenalty</code> . 1062, 1073
..... 178, 209	... 556, 1859, 1914	<code>\addvspace</code> .. 1062, 1073
<code>\acs@niib@text</code>	<code>\acs@tocentry@height</code>	<code>\advance</code> 343, 346, 370,
..... 155, 163, 173	..... 1265,	400, 418, 423,
<code>\acs@niib@write</code> 176, 181	1272, 1274, 1752,	439, 481, 507,
<code>\acs@niib@write@aux@i</code>	1956, 2038, 2133	684, 748, 756,
..... 181	<code>\acs@tocentry@print</code>	773, 789, 790,
<code>\acs@niib@write@aux@ii</code>	.. 1238, 1276, 2123	860, 861, 867,
..... 181	<code>\acs@tocentry@print@aux</code>	868, 888, 899,
<code>\acs@nmv@activate</code> . 213	..... 1238, 2128	901, 910, 919,
<code>\acs@number@list</code> 673, 957	<code>\acs@tocentry@text</code>	921, 942, 945, 981
	..... 1238, 2124	<code>\affilfont</code> 591, 630

<code>\affiliation</code>	4, 365	<code>\bibsep</code>	2261	401, 414, 467,
<code>\affilsize</code> 587 , 629 , 2167		biochem (option)	7	494, 508, 597,
<code>\aftergroup</code>	393,	biochemistry (option)	7	685, 821, 929,
	395 , 1010 , 1394 , 1398	<code>\bot</code>	832, 1872	978, 980, 1042,
<code>\alsoaffiliation</code>	4, 434			1126, 1153, 1189,
<code>\altaffiliation</code>	4, 474	C		1198, 1213, 1222,
<code>\and</code>	4, 353	<code>\c@figure</code>	1382	1302, 1303, 1322,
<code>\arabic</code>	1381	<code>\c@footnote</code>	615	1338, 1339, 1352,
articletitle (option)	6	<code>\c@scheme</code>	1383	1381, 1392, 1396,
<code>\AtBeginDocument</code>		<code>\c@table</code>	1384	1407, 1410, 1411,
	213, 258,	<code>\capsize</code>	2167 , 2247	1431, 1436, 1443,
	291, 297, 328,	<code>\captionfont</code>	2192	1478, 1483, 1519,
	1047, 1308, 1385,	<code>\captionsetup</code>	2058,	1561, 1567, 1573,
	1449, 1555, 2250		2084, 2096, 2108,	1579, 1585, 1591,
<code>\AtEndDocument</code>			2121, 2237, 2243	1597, 1603, 1609,
	287, 1236, 1240	<code>\catcode</code>	185,	1615, 1622, 1623,
<code>\AtEndOfClass</code>			186, 197, 1136,	1628, 1634, 1640,
	122, 123, 1125, 1902		1137, 1138, 1139,	1646, 1652, 1658,
<code>\AtEndOfPackage</code> 126 , 127			1146, 1147, 1462	1665, 1671, 1677,
<code>\author</code>	4, 342	<code>\centering</code>	1043	1689, 1695, 1706,
<code>\authorfont</code> 591 , 591 , 622		chaptertitle (option)	6	1713, 1719, 1725,
<code>\authorsize</code> 587 , 621 , 2167		chart (env.)	5, 1028	1731, 1737, 1743,
		<code>\chartname</code>	1034	1750, 1758, 1764,
		<code>\citation</code>	285	1770, 1782, 1797,
B		<code>\cite</code>	154, 159, 225,	1802, 1807, 1816,
<code>\begin</code>	605, 606,		226, 237, 238, 1529	1828, 1840, 1845,
	607, 1200, 1213,	<code>\citenum</code>	232, 243	1857, 1862, 1881,
	1261, 1264, 1936	<code>\citenumfont</code>	1387 , 1402	1900, 1912, 1916,
<code>\begingroup</code>	26, 182,	<code>\ClassWarning</code>	5	1928, 1929, 1933,
	345, 387, 413,	<code>\closeout</code>	288	1949, 1962, 1968,
	466, 476, 660,	<code>\columnsep</code>	1319	1975, 1997, 2003,
	663, 928, 958,	<code>\csname</code>		2011, 2017, 2018,
	1109, 1112, 1135,		27, 344, 347, 371,	2024, 2030, 2036,
	1190, 1255, 1391,		374, 377, 403,	2057, 2078, 2090,
	1461, 1482, 2127		424, 426, 441,	2102, 2118, 2119,
<code>\belowdisplayshortskip</code>			444, 447, 452,	2140, 2167, 2170,
	1346, 1360		455, 457, 478,	2173, 2179, 2185,
<code>\belowdisplayskip</code>			482, 484, 510,	2188, 2193, 2194,
	1347, 1361		521, 530, 539,	2197, 2206, 2207,
<code>\bfseries</code>	594, 2256		734, 746, 771,	2213, 2219, 2229,
<code>\bibfont</code>	2259		788, 951, 1191, 1193	2246, 2251, 2267,
<code>\bibhang</code>	2260			2280, 2287, 2288,
biblabel (option)	7	D		2294, 2295, 2304
<code>\bibliography</code>	291	<code>\dagger</code>	827, 1865	<code>\define@key</code> 50, 53, 56,
<code>\bibliographystyle</code>		<code>\ddagger</code>	828, 1866	59, 62, 65, 68, 71,
	1437, 1439, 1441	<code>\DeclareCaptionLabelSeparator</code>		74, 77, 84, 87, 90,
<code>\bibnote</code>			2236	93, 97, 108, 111, 1409
	7, 143 , 143 , 232, 243	<code>\DeclareRobustCommand</code>		<code>\definecolor</code>
<code>\bibnotemark</code>	7, 143		152, 157, 161	2299
<code>\bibnotetext</code>	7, 143	<code>\def</code>	85, 88, 91, 94,	<code>\do</code>
<code>\bibnumfmt</code>	129,		129, 130, 131, 132,	183, 771, 1285
	130, 131, 132, 1388		149, 154, 190, 191,	<code>\document</code>
<code>\bibsection</code>			194, 214, 293, 342,	1027
	1124, 1933, 2251		353, 359, 388,	<code>\doi</code>
				6
				doi (option)
				6
				<code>\dospecials</code>
				184
				<code>\doublespacing</code>
				328

E		
<code>\edef</code>	262, 986, 990, 1184, 1192, 1199, 1424, 1428	
<code>\else</code>	29, 177, 217, 269, 272, 276, 280, 324, 376, 381, 394, 406, 446, 461, 488, 502, 513, 523, 532, 541, 557, 564, 659, 678, 694, 702, 725, 753, 805, 814, 816, 842, 852, 885, 943, 964, 965, 971, 982, 989, 1002, 1061, 1072, 1160, 1207, 1214, 1225, 1232, 1243, 1249, 1290, 1328, 1405, 1415, 1427, 1438, 1472, 1497, 1514, 1876, 1883, 2147	
<code>\email</code>	4, <u>519</u>	
<code>email</code> (option)	3	
<code>\emailfont</code>	<u>591</u> , <u>637</u> , <u>2193</u>	
<code>\emailsize</code>	<u>587</u> , <u>636</u> , <u>2167</u>	
<code>\emergencystretch</code>	1311	
<code>\emph</code>	1783, 2161	
<code>\end</code>	643, 644, 645, 1148, 1186, 1198, 1200, 1208, 1214, 1266, 1268	
<code>\endabstract</code>	1009, 1134, 1168, 1173	
<code>\endcsname</code>	27, 344, 348, 371, 374, 377, 403, 424, 426, 441, 444, 447, 453, 456, 457, 479, 483, 485, 510, 521, 530, 539, 734, 747, 771, 788, 951, 1191, 1193	
<code>\endgroup</code>	26, 193, 350, 397, 420, 471, 487, 666, 668, 939, 975, 1115, 1117, 1155, 1164, 1204, 1269, 1400, 1467, 1489, 2129	
<code>\endinput</code>	15, 2148	561, 568, 601, 640, 651, 669, 680, 696, 699, 705, 706, 712, 713, 728, 729, 761, 762, 807, 814, 816, 837, 844, 848, 849, 854, 891, 892, 895, 907, 916, 938, 948, 955, 969, 970, 974, 995, 999, 1006, 1016, 1020, 1057, 1060, 1062, 1068, 1071, 1073, 1148, 1159, 1162, 1209, 1216, 1227, 1234, 1245, 1251, 1288, 1296, 1330, 1374, 1378, 1390, 1395, 1399, 1408, 1418, 1429, 1440, 1474, 1499, 1500, 1513, 1516, 1528, 1547, 1811, 1878, 1885, 1944, 1955, 1991, 2056, 2069, 2149
<code>\ensuremath</code>	798, 1863	
environments:		
<code>abstract</code>	<u>2156</u>	
<code>acknowledgement</code>	5, <u>1118</u> , <u>1307</u>	
<code>chart</code>	5, <u>1028</u>	
<code>graph</code>	5, <u>1028</u>	
<code>scheme</code>	5, <u>1028</u>	
<code>suppinfo</code>	5, <u>1118</u> , <u>1307</u>	
<code>tocentry</code>	5, <u>1276</u>	
<code>etalmode</code> (option)	6	
<code>\everypar</code>	1061, 1072	
<code>\expandafter</code>	26, 27, 28, 30, 176, 178, 193, 194, 216, 218, 255, 323, 325, 344, 347, 371, 374, 377, 401, 402, 405, 408, 424, 426, 431, 441, 444, 447, 452, 455, 471, 472, 478, 482, 484, 498, 501, 503, 508, 509, 512, 515, 521, 530, 539, 639, 661, 679, 698, 746, 770, 787, 799, 804, 806, 815, 841, 851, 884, 894, 906, 915, 949, 950, 954, 998, 1110, 1161, 1182, 1191, 1193, 1201, 1215, 1219, 1287, 1445, 1471, 1473, 1498, 1501, 1515, 1519, 1546, 2148	
F		
<code>\fax</code>	4, <u>528</u>	
<code>\fbox</code>	1262	
<code>\fi</code>	31, 169, 179, 219, 256, 269, 272, 276, 280, 326, 334, 379, 383, 396, 409, 410, 429, 432, 449, 463, 490, 499, 504, 516, 517, 525, 534, 543,	
G		
<code>\g@addto@macro</code>	655, 1009, 1026, 1027, 1861, 2085, 2097, 2109, 2122	
<code>\gdef</code>	330, 331, 344, 371, 374, 377, 441, 444, 447, 482, 521, 530, 539, 547, 552,	

	1140, 1152, 1239, 1463, 1466, 2124		
\geometry	1312		
\global	333, 343, 370, 439, 481, 615, 1157, 1219, 1222, 1484, 1884		
graph (env.)	5, <u>1028</u>		
\graphname	1034		
H			
\hfil	2201, 2211, 2215		
\hrule	2157, 2164, 2257		
I			
\if@filesw	175, 254		
\if@ignore	1156		
\if@nobreak	1061, 1072		
\if@noskipsec	1057, 1068		
\if@restonecol	1230, 1247		
\if@tempswa	392, 500, 1290		
\if@twocolumn	1223, 1241		
\ifacs@abbreviations	41, 1013		
\ifacs@articletitle	41, 269		
\ifacs@biochem	41, 1435		
\ifacs@chaptertitle	41, 272		
\ifacs@doi	41, 276		
\ifacs@email	41, 638		
\ifacs@etal@truncate	96, 280		
\ifacs@hyperref	41, 322		
\ifacs@keywords	41, 1017		
\ifacs@super	41, 1403		
\ifcase	826, 1864		
\ifdim	1060, 1071		
\iffalse	1150, 1165		
\IfFileExists	1421		
\ifin@	1426		
\ifNAT@super	215, 1545		
\ifnmv@cite	1468, 1470		
\ifnum	166, 366, 407, 424, 430, 435, 475, 497, 514, 520, 529, 538, 599, 678, 697, 702, 703, 709, 710, 723, 726, 745, 754, 803, 814, 816, 840, 847,		
	848, 849, 859, 866, 883, 886, 893, 905, 914, 933, 943, 946, 982, 1497, 1526, 1882		
\ifx	27, 332, 373, 404, 443, 511, 557, 564, 649, 658, 694, 962, 965, 971, 985, 1002, 1154, 1203, 1214, 1286, 1323, 1372, 1375, 1379, 1393, 1397, 1412, 1496, 1510, 1514, 1809, 1941, 1953, 1988, 2053, 2066, 2147		
\ignorespaces	1158		
\immediate	201, 260, 261, 265, 284, 288		
\in@	1424		
\input	1368		
\InputIfFileExists	1363		
\intextsep	1349		
\itshape	591		
J			
\jobname	168, 252, 294		
journal (option)	3		
K			
\keywords	546		
L			
\LARGE	590		
\large	588		
\lastskip	1480		
\latin	6, <u>297</u> , 1783		
layout (option)	3		
\leavevmode	1057, 1068, 1479		
\let	122, 123, 126, 127, 162, 183, 223, 224, 225, 237, 292, 333, 596, 611, 612, 664, 675, 879, 880, 896, 960, 963, 1041, 1047, 1049, 1051, 1053, 1055, 1066, 1090, 1094, 1098, 1099, 1100, 1104, 1105, 1106, 1113, 1132, 1134, 1148,		
	1149, 1167, 1168, 1172, 1173, 1191, 1256, 1295, 1299, 1300, 1306, 1324, 1343, 1357, 1370, 1442, 1495, 1505, 1506, 1512, 1531, 1532, 1533, 2191, 2192, 2195, 2196, 2203, 2204, 2220, 2232, 2245, 2259		
\LoadClass	4		
\long	190, 1198, 1213, 1222, 1339, 1352, 1463, 1466		
\loop	859, 866		
M			
\maketitle	1026, 1027, 1861, 2085, 2097, 2109, 2122		
\MakeUppercase	1004		
manuscript (option)	3		
\mathchardef	1518, 1521		
maxauthors (option)	6		
\MessageBreak	12, 18, 100, 114, 356, 362, 737, 935, 1142, 1292, 1365, 1550		
N			
\nabla	836, 1876		
\natmovechars	8, 1501, <u>1556</u>		
\newcommand	5, 22, 25, 34, 80, 81, 82, 83, 106, 107, 120, 129, 130, 131, 132, 138, 139, 140, 141, 142, 143, 165, 172, 173, 181, 189, 200, 209, 222, 236, 248, 252, 253, 259, 365, 386, 399, 412, 422, 434, 465, 474, 493, 506, 519, 528, 537, 546, 549, 551, 554, 556, 563, 570, 587, 588, 589, 590, 591, 592, 593, 594, 595, 647, 648, 653, 657,		

671, 676, 682,	\nmv@after	biochemistry	7
683, 701, 708,	.. 1476, 1483, 1488	chaptertitle	6
715, 720, 732,	\nmv@cite 225, 229, 237,	doi	6
744, 764, 769,	240, 1533, 1537, 1540	email	3
781, 786, 797,	\nmv@citefalse 1484, 1539	etalmode	6
802, 810, 813,	\nmv@citetrue . 228, 1536	journal	3
818, 824, 825,	\nmv@citex 224, 1469, 1532	layout	3
839, 846, 856,	\nmv@citex@end 1487, 1495	manuscript	3
877, 878, 898,	\nmv@citex@get@next	maxauthors	6
909, 918, 926,	..... 1485,	super	6
927, 941, 957,	1491, 1506, 1512	\or	826, 827, 828, 829,
977, 1008, 1012,	\nmv@citex@loop ...	830, 831, 832,	
1022, 1025, 1034,	..... 1494, 1512	833, 834, 835,	
1035, 1036, 1046,	\nmv@citex@moving .	1864, 1865, 1866,	
1048, 1050, 1052,	..... 1471, 1477	1867, 1868, 1869,	
1054, 1056, 1067,	\nmv@citex@nat	1870, 1871, 1872,	
1077, 1084, 1089,	223, 1473, 1483, 1529	1873, 1874, 1875	
1093, 1097, 1103,	\nmv@citex@next 1491,		
1124, 1130, 1131,	1496, 1505, 1510	P	
1133, 1165, 1166,	\nmv@citex@punct ..	\P	829, 1870
1171, 1178, 1179,	..... 1492, 1494	\p@	1344, 1345,
1180, 1197, 1212,	\nmv@citex@punct@aux	1346, 1348, 1349,	
1218, 1221, 1238,	..... 1501, 1509	1358, 1359, 1360	
1254, 1271, 1277,	\nmv@citex@punct@undouble	\PackageInfo	11, 17, 1549
1278, 1281, 1282,	..... 1494	\PackageWarning	.... 22
1283, 1298, 1301,	\nmv@citex@sfac ...	\pagestyle	... 598, 2222
1305, 1307, 1335,	..... 1497, 1518	\par	... 560, 567, 573,
1336, 1337, 1351,	\nmv@ifmtarg	617, 625, 632,	
1434, 1441, 1459,	..... 227, 239, 1459, 1535	853, 863, 873,	
1460, 1469, 1476,	\nmv@natbib@detect	972, 1015, 1019,	
1477, 1487, 1491,	..... 213, 1543	1058, 1069, 1306,	
1494, 1504, 1508,	\nmv@xifmtarg	1324, 1858, 1913	
1509, 1529, 1530,	.... 1459	\parallel	..... 1868
1543, 1556, 1783,	\nobreak	\parindent	..... 1320
2176, 2182, 2244	..... 2257	\perp	..... 1869
\newcount	... 167, 231, 242	\phone	..... 4, 528
..... 337,	\noexpand . 664, 1113,	\plainref	... 1046, 1431
338, 339, 340, 341	1186, 1193, 1424	\printbibnotes	.... 143
\newcounter	\noindent	\ProcessOptionsX	.. 137
..... 148	... 2160, 2257	\protected@edef	...
\newenvironment	\normalfont	.. 721, 749, 757,	
... .. 1118, 1121, 1276	\normalsize	774, 791, 966, 1003	
\newfloat	. 587, 589, 1239,	\providecommand	298, 1423
1028, 1030, 1032	1335, 1336, 1339,	\ProvidesClass	..... 2
\newif	1340, 1342, 1352,	\ProvidesFile	.....
..... 41,	1353, 1355, 1356	1559, 1565, 1571,	
42, 43, 44, 45, 46,	\null	1577, 1583, 1589,	
47, 48, 49, 96, 1468	..... 603	1595, 1601, 1607,	
\newlength	\number	1613, 1619, 1626,	
..... 575,	..... 799	1632, 1638, 1644,	
577, 579, 581,	O	1650, 1656, 1662,	
583, 585, 1272, 1273	\onecolumn	1668, 1675, 1682,	
\newpage	.. 1224, 1242	1693, 1704, 1711,	
.. 602, 1226,	\openout	1717, 1723, 1729,	
1233, 1244, 1250,	..... 260		
1861, 2085, 2097,	options:		
2109, 2122, 2131	articletitle		
\newtots	..... 6		
..... 1176, 1177	biblabel		
\newwrite	..... 7		
..... 247	biochem		
\nmv@activate	1529, 1546		

1735, 1741, 1748,	900, 901, 905,	2273, 2281, 2289,
1756, 1762, 1768,	910, 914, 919,	2296, 2305, 2310
1773, 1787, 1800,	920, 921, 930,	<code>\SectionNumbersOn</code> .
1805, 1814, 1821,	931, 933, 942,	..... 5, <u>1089</u> , 1377
1831, 1843, 1849,	943, 945, 946,	<code>\SectionsOff</code> . 5, <u>1097</u> ,
1889, 1898, 1905,	979, 981, 982,	1300, 1373, 1720,
1922, 1937, 1947,	1058, 1069, 1137,	1745, 1751, 1759,
1960, 1966, 1973,	1138, 1139, 1147,	1943, 1954, 1990,
1979, 1985, 1995,	1310, 1311, 1324,	2055, 2068, 2154
2000, 2007, 2015,	1344, 1345, 1346,	<code>\SectionsOn</code>
2022, 2028, 2034,	1347, 1348, 1349,	. 5, <u>1097</u> , 1376, 1902
2042, 2064, 2076,	1358, 1359, 1360,	<code>\setcitestyle</code> 1413, 1416
2088, 2100, 2112,	1361, 1462, 1480,	<code>\setkeys</code> 109, 133, 302,
2137, 2144, 2265,	1485, 1496, 1505,	1298, 1380, 1562,
2271, 2277, 2284,	1518, 1521, 2232	1568, 1574, 1580,
2292, 2302, 2308	<code>\renewcommand</code>	1586, 1592, 1598,
<code>\ProvidesPackage</code> 8, <u>1456</u>	.. 226, 238, 329,	1604, 1610, 1616,
<code>\ps@acs</code> <u>595</u> , <u>2206</u>	1382, 1383, 1384,	1621, 1629, 1635,
<code>\ps@jacs</code> <u>2194</u>	1387, 1388, 1414,	1641, 1647, 1653,
<code>\ps@plain</code> <u>596</u> , <u>2194</u>	1417, 1534, 2044,	1659, 1664, 1670,
	2045, 2046, 2048,	1678, 1684, 1696,
	2073, 2123, 2126	1707, 1714, 1726,
Q	<code>\renewenvironment</code> .	1732, 1738, 1744,
<code>\Q</code> 1462	..... 1321, 2156	1775, 1789, 1808,
<code>\quad</code> 2236	<code>\repeat</code> 864, 875	1817, 1823, 1833,
<code>\quotation</code> 2049	<code>\RequirePackage</code> . 33,	1851, 1891, 1907,
	314, 315, 323,	1924, 1939, 1970,
R	1404, 1406, 1420,	1981, 1992, 2002,
<code>\ref</code> <u>1046</u>	1422, 1458, 2298	2009, 2031, 2079,
<code>\refname</code> . 1127, 1933,	<code>\reset@font</code>	2091, 2103, 2114,
2018, 2057, 2257	.. 2198, 2208, 2214	2139, 2150, 2274,
<code>\refsize</code> <u>2167</u> , <u>2259</u>	<code>\restylefloat</code> . 1040,	2279, 2286, 2297
<code>\relax</code> 27, 162, 166, 185,	1931, 2071, 2234	<code>\setlength</code> . 576, 578,
186, 197, 260,	<code>\romannumeral</code> 815	580, 582, 584,
288, 343, 365,	S	586, 1274, 1275,
366, 370, 373,	<code>\S</code> 830, 1867	1319, 1320, 1752,
390, 400, 407,	scheme (env.) 5, <u>1028</u>	1753, 1956, 1957,
415, 416, 418,	<code>\schemename</code> <u>1034</u>	2038, 2039, 2133,
423, 425, 430,	<code>\section</code> ... 558, 565,	2134, 2223, 2224,
434, 435, 439,	571, 1049, 1098, 1104	2225, 2226, 2227,
440, 443, 468,	<code>\SectionNumbersOff</code> 5,	2228, 2260, 2261
469, 472, 475,	<u>1089</u> , 1672, 1679,	<code>\sf</code> 926
481, 496, 497,	1690, 1708, 1765,	<code>\sfcode</code> 1522,
507, 514, 520,	1784, 1810, 1818,	1523, 1524, 1526
529, 538, 599,	1827, 1846, 1856,	<code>\sffamily</code> 592, 594, 672,
677, 678, 684,	1895, 1901, 1919,	1259, 2159, 2193,
697, 702, 703,	1940, 1952, 1963,	2199, 2209, 2216
709, 710, 723,	1969, 1976, 1982,	<code>\singlespacing</code> 1260, 1308
726, 745, 747,	1987, 2004, 2010,	<code>\skip@</code> 1480
748, 754, 755,	2012, 2019, 2025,	<code>\space</code> . 203, 263, 268,
756, 772, 773,	2037, 2047, 2083,	271, 274, 275,
788, 789, 790,	2095, 2107, 2120,	278, 355, 361,
881, 882, 883,	2141, 2146, 2268,	687, 704, 967, 1444
886, 887, 888,		<code>\spacefactor</code> 1497
890, 893, 899,		

