Guidelines for the Preparation of Papers for Publication in Progress in Reaction Kinetics and Mechanism

These notes have been prepared by the editors of *Progress in Reaction Kinetics and Mechanism* (PRKM) but they apply equally to any chemical kinetics journal. We receive many papers which report good chemistry but are not acceptable because the presentation would need too much editing to bring them up to a publishable standard. We have therefore prepared these notes, which supplement our Instructions for Authors (www.scilet.com), and which we hope will be useful to inexperienced authors and will reduce the number of papers which are rejected or returned to the authors for rewriting.

Research papers
The fragmentation of work into a series of short papers is strongly discouraged. This is particularly the case when a series of related papers are submitted to different journals making it difficult for readers to follow the progress of the work. A more substantial paper will have a larger impact and be more widely cited.
Papers are unlikely to be accepted if they describe only a minor change in reaction conditions, such as varying one reagent (e.g. a macrocycle or organic substrate) for another in the same class, affording only a minor contribution to our understanding of the mechanism of the reaction.

Accuracy
The publication of scientific work rests on trust concerning the accuracy, honesty and novelty of the work that is being reported. Editors may ask for the original data such as the printed output from elemental analysers, or UV-vis, NMR and IR spectra, to support claims in the paper, and authors who do not provide such information on demand, or who violate in other ways these conditions of trust, may be blacklisted and find it difficult to publish their work in future. Authors should ensure that their co-authors are in agreement with the publication of the work. Difficulties have arisen when a junior member of a team has submitted work without the permission of the leader of the team.

Instructions for authors
Before preparing their manuscript authors MUST consult the journal's 'Instructions for Authors'. These are usually published in the January issue of the journal and are available on line (at www.scilet.com for PRKM). These instructions contain important information on the style of papers, the conventions that are used and the procedure for submitting manuscripts. Details of the style and format of papers can be gained from previous issues of the Journal. An electronic sample copy of a previous issue of PRKM can be requested from jcr@scilet.com.

Text style
The title for a paper should be short, accurate and informative. Lengthy titles and those which claim more than is substantiated by the text of the paper, are likely to be changed or rejected. The titles of papers, the contents of the abstracts and the 'keywords' form the basis from which a number of electronic databases and information retrieval systems are constructed. Authors should ensure that these are sufficiently accurate and contain the

specific key words which would enable their work to be retrieved electronically by search engines.

The careful wording of an abstract is of major importance in enabling others to decide whether or not to read the full paper. The abstract should be essentially independent of the main paper. Reference to structure numbers in the main paper should be avoided.

The address which is given for the authors must be that at which the work was carried out. When a senior author has moved to another department, that address should also be cited. An E-mail address is essential for correspondence concerning the paper.

The text of a paper usually falls into four sections:

- introduction
- results and discussion (these may be separated if individual components are very long)
- experimental
- references

Some papers may also have electronic supplementary information (ESI) which is available on line but which is not printed.

The *introduction* should state why the work was carried out and its objectives. It should contain sufficient background information together with the associated references to enable the reader to put the work into its context. However, many authors include too much irrelevant information and material that is already widely known. In many cases, reference to a readily accessible review accompanied by a brief summary of the prior work and the present state of knowledge together with a short justification of the research, is adequate.

The *results and discussion* section should describe the methodology that was used and the significant data on which the conclusions were based. References should be given to appropriate literature analogies. Where a novel method of carrying out a transformation is described, care should be taken to demonstrate its significant advantages over the existing methodology possibly by quoting suitable comparisons or by indicating a situation where the current method does not work. Where results are given in a table, this should contain the relevant characterizing information, for example, the reaction temperature, solvent, pH, fixed reactant concentrations, ionic strength. Where a new compound is described, sufficient spectroscopic and chemical evidence should be cited to establish its structure and exclude possible alternative structures. Complex structures should be illustrated with structural diagrams. In the published order of a paper for PRKM, the experimental section usually comes before the discussion. Only the data that are necessary to establish a scientific point should be given in the discussion section. The full characterization data for a new compound should be given in the experimental section.

Where abbreviations are used both in the experimental section and in the text, authors should check that these follow the common practice. Lists of standard abbreviations are published by the Royal Society of Chemistry. Non-standard abbreviations must be defined.

The *experimental* part of the paper should contain a section of general experimental details listing the spectroscopic and analytical equipment that was used. The description

of the specific experiments should contain sufficient information to enable the reader to repeat the experiments. Inadequate or incomplete submission of experimental information can be a major cause of papers being queried or rejected. Authors must consult the 'Instructions for Authors' to see the format for the presentation of this data. In listing the characterizing data for a new compound the usual order is: name of compound, yield, m.p. (or b.p.), IR, NMR, MS and analysis, with the molecular formula. Attention should be paid to the number of significant figures that are quoted and to the use of units.

Kinetic data (rates, activation parameters, isotope effects) should be presented with confidence limits (e.g. one standard deviation); The quotation of data with unrealistic numbers of decimal places must be avoided.

Known compounds must be referenced and comparison data quoted whilst new compounds must be fully analysed either by a combustion analysis or by a high-resolution mass spectrometric analysis of the molecular ion. The IR and NMR spectra of new compounds must also be given. In listing IR data only those absorptions that are characteristic of particular structural features (*e.g.* OH, C=O or C=C) should be quoted. The presentation of ^{1}H NMR data is often incomplete and wherever possible, authors should give the coupling constants. There have been many examples of papers which have been queried by the referees and returned for revision because spectra have been determined on high-field instruments and yet the coupling constants were not given or where resonances were unsatisfactorily described as multiplets. The solvent in which the NMR spectra were determined should be given. In the case of ^{13}C NMR spectra it is helpful to distinguish between resonances arising from methyl, methylene, methine and quaternary carbons.

Where possible, new compounds should be given their systematic names. The quantities of materials that have been used in the experiments should follow the name of the substance to which they refer, *i.e*. “water (15 mL)” rather than “15 mL of water”. Authors should note the different uses of the comma, semicolon, and colon in listing data. Foreign words and Latin abbreviations are given in italics. In describing biological material the scientific names of genera and species are italicized.

Serious hazards should be identified. Papers may be rejected if they advocate the use of particularly hazardous procedures.

The format for references is given in the Instructions for Authors. In order to facilitate the use of online ‘Crossref’ electronic referencing, each reference number should cite only one paper. The sub-division of references into (a) and (b) should not be used. Footnotes should not be included in the references but given separately in the text. All the authors of a paper should be cited. The use of *et al*. in the reference list is not permitted. The format for references is given in the Instructions for Authors. The abbreviations for journals can be found on the Royal Society of Chemistry web site (http://www.rsc.org/).

Careful consideration should be given to the choice if the generic names for groups of compounds, and to the *keywords* used for the description of particular novel techniques.

Electronic supplementary information appears only on the web, and enables authors to enhance their paper with, for example, full colour diagrams, 3D molecular models, and bulky experimental data. This material is usually refereed but not edited.

Diagrams

Diagrams should normally fit a single column of a double-column page. The numbering of axes should use clearly legible fonts; it is often the case that direct reproduction of numbering from computer printouts from instruments results in illegible fonts.

English

Papers are published in English. For many authors English is not their first language. Authors are strongly advised to ask an English-speaking colleague to check their papers. There are a number of simple rules to avoid misunderstandings. Do not use long and complicated sentences. Use one sentence for one subject. Keep the tenses consistent and use simple words rather than long words. A common fault is to omit 'a' or 'the' before a noun. The incorrect and superfluous use of adjectives and adverbs is another common fault. Always be concise in expression.

Some common faults which can obscure the meaning include the use of a number of adjectives in front of a noun. A series of subordinate clauses within a sentence can also confuse the reader. Phrases with low information content can often be abbreviated to a single word. The careful choice of words is very important. Some pairs of words such as absorb and adsorb, or affect and effect, are easily confused.

Plagiarism

Plagiarism, the unattributed copying of another author's work and ideas, is a serious offence. This can apply to the copying of specific passages in the introduction and the discussion. “Self-plagiarism” – the re-use of introductory material from another paper, or the recycling of experimental details – is also an objectionable practice and may lead to the black-listing of authors by the Journal.

Submissions

Articles should be submitted to PRKM.as a conventional single-column manuscript with lines that are double-spaced; other journals may require the paper to be prepared on a template which they provide. Pages should be numbered. Diagrams, structures and tables should be submitted on separate pages. Problems often arise in the electronic transmission of manuscripts when authors attempt to embody these within the text.