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Chemical Research in Toxicology

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Scope of the Journal

Chemical Research in Toxicology publishes Articles, Communications, Reviews, Perspectives, Letters to the Editor, and ToxWatch on a wide range of topics in Toxicology that inform a chemical and molecular understanding and capacity to predict biological outcomes on the basis of structures and processes. The overarching goal of activities reported in the Journal are to provide knowledge and innovative approaches needed to promote intelligent solutions for human safety and ecosystem preservation. The journal emphasizes insight concerning mechanisms of toxicity over phenomenological observations. It upholds rigorous chemical, physical and mathematical standards for characterization and application of modern techniques. Representative research includes:

1. Studies concerning the molecular mechanisms by which physical, chemical, or biological agents or materials, interact with and perturb the normal function and/or structure of biological systems, including living organisms, cells, or biomolecules.
2. Studies that address hypotheses concerning mechanisms of adverse or therapeutic responses, or contribute to the development of models of toxic/biological function on the basis of quantifying chemical, molecular and cellular responses to physical, chemical, or biological agents or materials.
3. Studies involving data resulting from high content characterization of molecular responses to agents from the use of bioanalytical approaches such as proteomics, metabolomics, lipidomics, genomics, high content imaging, multi-omics, etc. to characterize targeted patterns or global cellular responses, as well as studies that use novel or existing data to create new models for quantifying exposures or building predictive models of biological pathways or networks.
4. The identification and characterization of potentially hazardous agents such as environmental contaminants, industrial chemicals, drugs and drug-like molecules, natural products, biological toxins and engineered nanomaterials, and the development and application of novel methodologies for their detection and/or characterizations of their interactions with biological systems or biomolecules.
5. Studies concerning pathological biochemistry and molecular mechanisms of disease etiology involving exogenous as well as endogenous agents and/or molecular pathways or networks.

In the case of uncertainty regarding the suitability of a manuscript, authors may send a pre-submission inquiry to the Editor that includes an abstract and cover letter indicating the intended manuscript format by e-mail (eic@crt.acs.org).

Manuscript Types

Reviews, Perspectives, Letters to the Editor, and ToxWatch. See the Manuscript Organization section for details concerning the technical organization for each manuscript type.

- ***Articles***: <300 word abstract; no limit on length, figures/tables, or references
- ***Communications***: 3000 word limit; <100 word abstract; ~5 or fewer figures/tables; ~30 references

- ***Reviews***: <300 word abstract; no limit on length, figures/tables, or references
- ***Perspectives***: 3000-6000 words; <300 word abstract; no limits on figures/tables or references
- ***ToxWatch***: 1000 words; 250-character abstract; maximum 5 references 1 figure: 7 in width x 9 in. height (or 504 pt x 648 pt)
- ***Letters to the Editor***: 2000 words; no abstract; 0-1 figures/tables; maximum 5 references

Articles

Comprehensive accounts of significant original research should be submitted as Articles.

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Timely topics that are important and of urgent interest should be submitted as Communications. We aim for a decision within three weeks of receipt. Only minor revisions, completed within ten days, are possible. Any manuscript deemed publishable but requiring a major revision may be further considered as an article. Authors should review the Journal's Preparation of Manuscripts (below) prior to submission of a manuscript. Communications are strictly limited to 3,000 words.

Reviews

Comprehensive reviews of topics within the scope of the journal and supported by significant literature should be submitted as reviews. Short reviews of recent literature that update a topic are also considered. The information in Reviews should be presented objectively, not limited to the contributions of the authors, and written with the intent of familiarizing the general reader with the broad current state of knowledge of a topic of active interest. The length of reviews should be commensurate with the information available; there are no formal limitations on length.

Perspectives

Manuscripts that discuss particular issues about which the author has expertise, for example introducing new concepts, proposing original models, offering the author's interpretation of statistical trends, or weighing in on a controversy, should be submitted as perspectives. Perspectives contain approximately 3,000-6,000 words and have no limitations on figures, tables or references.

Letters to the Editor

Communication with the readership of the journal, for example, highlighting important concerns or differences of interpretation of scientific or policy matters relevant to all areas of Toxicology should be submitted as Letters to the Editor. In topics of controversy, contributions from investigators with differing viewpoints may be invited by the Editors. Letters to the Editor should be limited to 2,000 words and are subject to editorial, but not peer review.

ToxWatch

Forum in which interesting perspectives and opinions on current issues in Toxicology including aspects of policy, risk assessment practices, and in explaining how particular research findings in toxicology are anticipated to impact society. These pieces are written in a way that they are accessible by a wide audience, clearly explaining key background information. These articles

should also provide a critical evaluation of policies, practices, or scientific work they are addressing. ToxWatch contain approximately 1000 words, a single unnumbered high resolution image without caption that is 7 in. width x 9 in. height (vertical), 7 in. height x 9 in. width (horizontal) or 504 pt x 648 pt graphic, and a maximum of 5 references. This graphic should be used as TOC graphic. ToxWatch is subject to editorial, but not peer review.

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Abstract. An abstract should be included with all Articles, Communications, Reviews, and Perspectives. For Articles and Communications, the abstract should briefly (300 word maximum) present, in one paragraph, the problem and experimental approach and state the findings and conclusions. For Reviews and Perspectives, the abstract should introduce the topic, summarize key points, and state the major conclusions. In all cases, the abstract should be self- explanatory

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Introduction. The introduction should state the purpose of the investigation and its relation to other work in the field. Background material should be brief and relevant to the research described. Detailed or lengthy reviews of the literature should be avoided.

Experimental Procedures. Procedures for experimental methods should be described in sufficient detail to enable other investigators to repeat the experiments. Names of product manufacturers (with city, state address, catalog number) should be included if alternate sources are deemed unsatisfactory or if the product is of limited availability. Novel experimental procedures should be described in detail, but previously published procedures should be referred to by literature citation of the original detailed explanation, and should include description of any modifications.

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The ACS Research Data Policy provides additional information on Data Availability Statements, Data Citation, and Data Repositories.

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Appendix 2: Preparing Graphics

Resolution

Digital graphics pasted into manuscripts should have the following minimum resolutions:

- Black and white line art, 1200 dpi
- Grayscale art, 600 dpi
- Color art, 300 dpi

Size

Graphics must fit a one- or two-column format. Single-column graphics can be sized up to 240 points wide (3.33 in.) and double-column graphics must be sized between 300 and 504 points (4.167 in. and 7 in.). The maximum depth for all graphics is 660 points (9.167 in.) including the caption (allow 12 pts. For each line of caption text). Lettering should be no smaller than 4.5 points in the final published format. The text should be legible when the graphic is viewed full-size. Helvetica or Arial fonts work well for lettering. Lines should be no thinner than 0.5 point.

Color

Color may be used to enhance the clarity of complex structures, figures, spectra, and schemes, etc., and color reproduction of graphics is provided at no additional cost to the author. Graphics intended to appear in black and white or grayscale should not be submitted in color.

Type of Graphics

Table of Contents (TOC)/Abstract Graphic

Consult the Guidelines for Table of Contents/Abstract Graphics for specifications.

Our team of subject-matter experts and graphical designers can also help generate a compelling TOC graphic to convey your key findings. Learn more about our Graphical Abstract service.

Figures

A caption giving the figure number and a brief description must be included below each figure. The caption should be understandable without reference to the text. It is preferable to place any key to symbols used in the artwork itself, not in the caption. Ensure that any symbols and abbreviations used in the text agree with those in the artwork.

Charts

Charts (groups of structures that do not show reactions) may have a brief caption describing their contents.

Tables

Each table must have a brief (one phrase or sentence) title that describes the contents. The title should be understandable without reference to the text. Details should be put in footnotes, not in the title. Tables should be used when the data cannot be presented clearly in the narrative, when many numbers must be presented, or when more meaningful inter-relationships can be conveyed by the tabular format. Tables should supplement, not duplicate, information presented in the text and figures. Tables should be simple and concise.

Schemes

Each scheme (sequences of reactions) may have a brief caption describing its contents.

Chemical Structures

Chemical structures should be produced with the use of a drawing program such as ChemDraw.

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