



Electron and Radical Induced Chemistry with Radiobiological Applications

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Message from the Guest Editor

New biomedical applications of radiation based on charged particle beam interactions, both for therapy and diagnostics require specific studies on their radiobiological effects. In such applications, secondary species determine these effects through chemical reactions induced to the sensitive molecules that constitute the medium.

The scope of this Special Issue (in terms of theory, experiments and simulations) includes:

- Primary proton and ion beam interactions in biologically relevant media around the Bragg Peak.
- Chemical reactions induced by low-energy electrons and positrons to biomolecular systems both in the gas and condensed phases.
- Radical generation and subsequent interactions with molecular-sensitive molecules (DNA, RNA constituents and analogue molecules).
- Evaluation and characterization of molecular radiosensitizers and their role in specific treatments.
- Living cell radiobiological studies and comparison with predicted models.

Due to your expertise in the field, we are pleased to invite you to contribute to this Special Issue on Electron and Radical Induced Chemistry with Radiobiological Applications.





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Message from the Editor-in-Chief

The International Journal of Molecular Sciences (*IJMS*, ISSN 1422-0067) is an open access journal, which was established in 2000. The journal aims to provide a forum for scholarly research on a range of topics, including biochemistry, molecular and cell biology, molecular biophysics, molecular medicine, and all aspects of molecular research in chemistry. *IJMS* publishes both original research and review articles, and regularly publishes special issues to highlight advances at the cutting edge of research. We invite you to read recent articles published in *IJMS* and consider publishing your next paper with us.

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