



Recent Advances on MRI Contrast Agents

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Message from the Guest Editors

Magnetic resonance imaging (MRI) is one of the most important clinical imaging modalities. A large percentage of MRI exams use a gadolinium containing contrast agent to enhance image contrast. The spectacular success of Gd-based contrast media prompted and invigorated the research on various lanthanide chelates for MR applications. Numerous Ln-containing complexes have been reported with a wide range of potential applications, such as smart/responsive, chemical exchange saturation transfer (CEST), high field, angiography, and multimodal imaging.

This Special Issue of *Molecules* intends to include original research papers, technical reports, and reviews on all aspects of MRI contrast agent development. Manuscript submissions are invited on research areas including but not limited to novel lanthanide-based (e.g., Gd³⁺, Yb³⁺, Eu²⁺, etc.) contrast agents with improved kinetic properties, responsive agents, T_1 shortening and paraCEST agents, transition metal containing agents that can produce contrast via T_1 , and/or T_2 shortening or paraCEST mechanism) and metal-free agents (such as ¹⁹F-based MRI agents, organic free radicals, and hyperpolarized probes).





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Message from the Editor-in-Chief

As the premier open access journal dedicated to molecular chemistry, now in its 30th year of publication, the papers published in *Molecules* span from classical synthetic methodology to natural product isolation and characterization, as well as physicochemical studies and the applications of these molecules as pharmaceuticals, catalysts, and novel materials. Pushing the boundaries of the discipline, we invite papers on all major fields of molecular chemistry and multidisciplinary topics bridging chemistry with biology, physics, and materials science, as well as timely reviews and topical issues on cutting-edge fields in all of these areas.

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