# Special Issue

# Transition-Metal Contrast Agents for MRI

## Message from the Guest Editors

By far, the majority of MRI contrast agents are coordination complexes of Gd(III), which exhibit high magnetic susceptibility and impart contrast by enhancing the relaxation rate of surrounding water protons. However, growing safety concerns over the use of lanthanide-based contrast agents has led the drive to find alternatives to gadolinium-based MRI agents. One approach is to look to endogenous transition metal ions as alternatives. Several strategies can be used to achieve contrast in proton MRI using transition metal ions, including conventional relaxivity agents, which exploit paramagnetic relaxation enhancement, and paraSHIFT agents, for which paramagnetic hyperfine shifts are induced by anisotropic magnetic susceptibility. Spin changes can be induced with an external stimulus using transition metal chemistry in pursuit of switchable contrast agents for imaging biochemical processes. This Special Issue aims to publish a collection of research contributions of recent work in the development, study, and understanding of transition metal contrast agents for MRI.

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## Deadline for manuscript submissions

closed (31 October 2021)


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*Magnetochemistry* constitutes a multidisciplinary field where chemists and physicists not only study magnetic properties but also design and synthesize chemical compounds with desired magnetic properties. *Magnetochemistry* is inviting contributions in any field related with this area, such as theoretical models, crystal engineering, molecular magnetism, SMM, SIM, SCM, SCO, magnetic nanostructures, magnetic MOFs, magnetic recording, qubits, magneto-caloric materials, etc. Our goal is to share your contribution in a timely fashion and in a manner that will be valued by the scientific community.

### Editor-in-Chief

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