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Homogeneous Catalysis with Earth-Abundant Metal Complexes

Guest Editor:

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closed (30 June 2021)

Message from the Guest Editor

Dear Colleagues,

Replacement of noble transition metal complexes in homogeneous catalysis with more abundant, cheaper, and often less toxic alternatives based on Earth-abundant metals constitutes an important aspect in the development of sustainable fine chemical industry. Since the beginning of the 21st century, this research area has become providing a plethora of highly efficient catalytic systems, which are competitive or sometimes even superior to traditional noble metal catalysts.

This Special Issue focuses on the application of both well-defined species and generated in situ catalytic systems as well as on the experimental and theoretical studies of catalytic reaction mechanisms. In addition to first row transition metal catalysts, the scope of the issue also concerns other (relatively) abundant main group (Mg, Ca, Ba, Al, Ga) and heavier transition metal (Zr, Mo, W) complexes.

The possible contributions include communications, research papers, and short reviews.