



## Magmatic-Hydrothermal Fe Deposits and Affiliated Critical Metals

Guest Editors:

**Dr. Xiaowen Huang**

Institute of Geochemistry  
Chinese Academy of Sciences,  
Guiyang 550001, China

**Dr. Xinfu Zhao**

School of Earth Resources, China  
University of Geosciences, Wuhan  
430079, China

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### Message from the Guest Editors

Dear Colleagues,

Iron is an important resource for human life. Iron resources are heterogeneously distributed in different countries with variable deposit types, deposit scales, and ore grades. There are different types of Fe deposits, including the magmatic, magmatic-hydrothermal, sedimentary, and metamorphic deposits. Among these, magmatic-hydrothermal Fe deposits such as iron oxide–copper–gold (IOCG), iron oxide–apatite (IOA), skarn Fe, and volcanic-hosted Fe deposits constitute major Fe resources in some countries, e.g., Kiruna-type IOA for Sweden and skarn and volcanic-hosted for China. In addition to iron resources, magmatic-hydrothermal Fe deposits also host economic resources of critical metals. For example, IOCG provides U and REE, whereas IOA provides REE. Skarn and volcanic-hosted Fe deposits are associated with critical metals such as Ga, In, Co, and Ni. Although extensive studies have been carried out on these deposits, there are still some important aspects unresolved, including detailed ore-forming process, the enrichment mechanism of iron and associated critical metals and their genetic relationship, and the occurrence of critical metals.





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### **Prof. Dr. Leonid Dubrovinsky**

Bayerisches Geoinstitut,  
University Bayreuth, D-95440  
Bayreuth, Germany

## Message from the Editor-in-Chief

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*Minerals* Editorial Office  
MDPI, St. Alban-Anlage 66  
4052 Basel, Switzerland

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