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# Removal and Separation of Noble Metal Ions Using Ion Exchange and Solvent Extraction

Guest Editors:

#### Prof. Dr. Kenneth N. Han

Department of Materials and Metallurgical Engineering, South Dakota School of Mines and Technology, Rapid City, SD 57701, USA

#### Prof. Dr. Virgínia Sampaio Teixeira Ciminelli

Department of Metallurgical and Materials Engineering, Universidade Federal de Minas Gerais, Belo Horizonte 31270-901, MG, Brazil

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### **Message from the Guest Editors**

The noble metals are highly resistant to oxidation and do not readily dissolve. Except for gold, most are typically found in nature as sulfides. Another source of these metals is the recycling industry, where end-of-life metals or alloys are reclaimed and reused. Following the extraction process, these metals need to be separated from other impurities, a task accomplished through various technologies. including electrowinning, chemical precipitation, and, more recently, ion exchange as well as solvent extraction. Recent developments in ionic liquids and deep eutectic solvents have opened new avenues for extracting and separating these metals using modern techniques.

This Special Issue presents research in ion exchange as well as solvent extraction for selectively recovering noble metals from their associated impurities. Additionally, it seeks to delve into the comprehensive analysis of the thermodynamic as well as kinetic aspects of ion exchange and solvent extraction processes. Review articles are invited but are expected to demonstrate salient guides to new and novel approaches in addition to a forward-looking direction for future investigations.









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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, Grosspeteranlage 5 4052 Basel, Switzerland Tel: +41 61 683 77 34 www.mdpi.com mdpi.com/journal/minerals minerals@mdpi.com X@Minerals\_MDPI/