



*minerals*



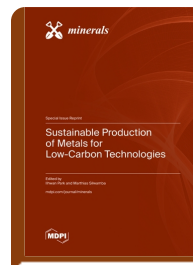
*Special Issue Reprint*

## **Sustainable Production of Metals for Low-Carbon Technologies**

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A high demand for metals (cobalt, copper, gold, lithium, nickel, tin, vanadium, etc.) has been recorded for the past several decades, and this demand is expected to increase even further in the coming decades as the world moves to low-carbon technologies based on renewable energy sources (RESs) and electric vehicles (EVs) and away from the heavy use of fossil fuels. To meet the high forecasted demand, unconventional sources of metals such as low-grade complex ores, seafloor massive sulfides (SMSs), and wastes (e.g., tailings, metallurgical residues, and electronic wastes (e-wastes)) have become very important sources of metals; moreover, these metals should be extracted in a sustainable manner without negatively impacting the environment. This Special Issue focused on recent advances in the sustainable production of metals from the above-mentioned unconventional sources.

This reprint is a compilation of a Special Issue of *Minerals*, “Sustainable Production of Metals for Low-Carbon Technologies”, where 13 papers contributed by experts in the area were published. Papers published in this Reprint cover a wide range of topics, including mineral processing (gravity concentration, magnetic separation, and flotation), hydrometallurgical techniques (leaching, solvent extraction, and cementation) to extract minerals/metals from primary and secondary resources. All the papers are of high scientific value and will be of great interest to readers of *Minerals*.



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