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Sommario/riassunto	<p>This Special Issue, focusing on the value of mineralogical monitoring for the mining and minerals industry, should include detailed investigations and characterizations of minerals and ores of the following fields for ore and process control: Lithium ores—determination of lithium contents by XRD methods; Copper ores and their different mineralogy; Nickel lateritic ores; Iron ores and sinter; Bauxite and bauxite overburden; Heavy mineral sands. The value of quantitative mineralogical analysis, mainly by XRD methods, combined with other techniques for the evaluation of typical metal ores and other important minerals, will be shown and demonstrated for different minerals. The different steps of mineral processing and metal contents bound to different minerals will be included. Additionally, some processing steps, mineral enrichments, and optimization of mineral determinations using XRD will be demonstrated. Statistical methods for the treatment of a large set of XRD patterns of ores and mineral concentrates, as well as their value for the characterization of mineral concentrates and ores, will be demonstrated. Determinations of metal concentrations in minerals by different methods will be included, as well as the direct prediction of process parameters from raw XRD data.</p>

