Workshop on Material Flows and Environmental Impacts associated with Massive Consumption of Natural Resources and Products
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Eco-Efficiency in Australian Minerals and Metals Production

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Abstract

Australia is a leading, diversified supplier of ores, concentrates and metals into the booming global commodity markets, in particular in Asia. Their mining, beneficiation and processing is material- and energy-intensive, which is largely determined by the location, geometry, grade and mineralogy of the ore bodies being mined, each of which change from mine to mine, and over time for each individual mine. This presentation will provide a summary of recent studies that quantified principal material flows and energy use for selected metals derived from process modelling using representative ore types and processing technologies [1-4] It will also provide examples of incremental and transformative technologies being developed and implemented for minerals processing and metals production [5-7]. Pertinent industry trends and their impact on material- and energy-intensity will also be briefly discussed.

References

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