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Evolution and Modeling of Iron Ore Sintering Process

Guest Editor:

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Deadline for manuscript submissions:
closed (31 December 2022)

Message from the Guest Editor

Dear Colleagues,

This Special Issue will mainly focus on the actual status and developments of the iron ore sintering process and discussing new insights into ongoing technologies with potential for integration and sustainable approaches, from raw material selection and preparation to technological predictions of sinter properties. Our Special Issue will cover relevant topics of interest, such as:

1. Raw material selection and intensive mixing (experimental and modeling approaches);
2. Sintering modeling (statistical, continuous and discrete approaches);
3. Modeling and optimization techniques applied to sinter production;
4. CALPHAD approach for sintering phase evolution;
5. Kinetics and phenomenological modeling;
6. Big data approach for raw material preparation and sintering process;
7. Artificial intelligence and expert systems for sintering process control;
8. Image analysis and alternatives techniques for mineral and sinter phase quantification;
9. New alternative fuels for the iron ore sintering process;
10. Industrial trials aiming at sustainable developments in the iron ore sintering process.

Thank you and we look forward to receiving your contributions.

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Message from the Editor-in-Chief

Minerals welcomes submissions that report basic and applied research in mineralogy. Research areas of traditional interest are mineral deposits, mining, mineral processing and environmental mineralogy. The journal footprint also includes novel uses of elemental and isotopic analyses of minerals for petrology, geochronology and thermochronology, thermobarometry, ore genesis and sedimentary provenance. Contributions are encouraged in emerging research areas such as applications of quantitative mineralogy to the oil and gas, manufacturing, forensic science, climate change, geohazard and health sectors.

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