

1. Record Nr.	UNINA9910337932003321
Titolo	10th International Symposium on High-Temperature Metallurgical Processing [[electronic resource] /] / edited by Tao Jiang, Jiann-Yang Hwang, Dean Gregurek, Zhiwei Peng, Jerome P. Downey, Baojun Zhao, Onuralp Yücel, Ender Keskinilic, Rafael Padilla
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2019
ISBN	3-030-05955-3
Edizione	[1st ed. 2019.]
Descrizione fisica	1 online resource (XXI, 817 p. 475 illus., 350 illus. in color.)
Collana	The Minerals, Metals & Materials Series, , 2367-1181
Disciplina	620.11
Soggetti	Materials science Metals Engineering—Materials Characterization and Evaluation of Materials Metallic Materials Materials Engineering
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Part 1. Energy-efficient and Clean Metallurgical Technology -- Simplified Process for Making Anode Copper -- Techno-economic Analysis of Energy Recovery from Plastic Waste -- Development of Continuous Blast Furnace Slag Solidification Process for Coarse Aggregates -- An Innovative Oxygen-enriched Flash Smelting Technology for Lead Smelting and its Industrial Application -- Characteristics and Control Technology of Fine Particulate Matter (PM) of Iron Ore Sintering -- Sintering Bed Spraying Steam to Reduce NOx and Dioxin Emissions in Shougang -- Part 2. Simulation and Modeling of High Temperature Metallurgical Process -- Neural Prediction Model for Extraction of Germanium from Zinc Oxide Dust by Microwave Alkaline Roasting-Water Leaching -- Simulation of Velocity Field of Molten Steel in Electric Arc Furnace Steelmaking -- Thermodynamic Modelling of Magnesium, Calcium and Strontium-oxides Reduction Systems in Vacuum -- Metallization and Carburization Kinetics in DR

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Molten Flux for High Manganese High Aluminum Steel -- Effect of Temperature on Oxidation Behavior of Cr-Mo-V Steel with Different Cr Contents for High-speed Train Brake Discs -- Electrochemical Preparation of Ti<sub>5</sub>Si<sub>3</sub>/TiC Composite from Titanium-rich Slag in Molten CaCl<sub>2</sub> -- Evolution of Al-Ti-Mg-O Inclusions during Refining and Casting Process of Interstitial Free Steel -- Experimental Study on Carburization of Higher Vanadium-bearing Hot Metal -- Hematite Precipitation from High Iron Solution in Hydrometallurgy Process -- Influence On The Crystallization Phase Of Mold Flux By Magnetic Fields -- Kinetics Study on Limestone Decomposition in Early Converter Slag -- Mathematical Modeling and Analysis of Converter Slagging and Steelmaking Process by Replacing Part of Lime With Limestone -- Research of Digital Platform and Process Guidance Model in EAF Steelmaking Process -- Research on Factors Affecting and Prediction Model of Silicon Content in Hot Metal of Corex -- Studied on the Cooling Effect of CO<sub>2</sub> on the Temperature of Vanadium in Converter -- Study on Grain Size and Porosity of the Produced Lime from Limestone in Early Converter Slag -- Study on Reducing Al<sub>2</sub>O<sub>3</sub> Inclusions by Optimizing Refining Slag -- Study on the Volatilization of Sb<sub>2</sub>S<sub>3</sub> in Vacuum -- The Effects of ZrO<sub>2</sub>, Y<sub>2</sub>O<sub>3</sub> and Sc<sub>2</sub>O<sub>3</sub> on the Properties of Mould Fluxes for High Manganese High Aluminum Steels -- Thermogravimetric Analysis and Kinetic Study of the Calcification Roasting of Vanadium Slag -- Viscosity of Mould Flux under Electromagnetic Field -- Part 10. Poster Session II -- Analysis of Microwave Drying Behavior of Nickel Laterite -- Analysis of Operational Parameters Affecting Metallization Degree of DRI in Reduction Shaft of COREX Process and Improvement Measures -- Dechlorination of Zinc Oxide Dust by Microwave Roasting with RSM Optimization -- Effect of TiO<sub>2</sub> on the Viscous Behavior of High Alumina Blast Furnace Slag -- Fundamental Research on the Iron Nugget Process from Carbon Composite Pellet -- Influence of Coke Quality on Main Technical Indexes of Blast Furnace -- Kinetic Analysis of Blast Furnace Dust Recycling with Flash Reduction Process at High Temperature -- Preparation and Characterization of Iron-coke Briquette -- Preparation of Oxidized pellets with Chrome Ore -- Research and Application of Sintering Surface Steam Spraying Technology for Energy Saving and Quality Improvement -- Research on Bonding Mechanism of Sintering Grate -- Research on Optimizing Sinter Ore Matching Based on the High Temperature Characteristic Numbers -- Research on the Mineral Composition and Microstructure Changes of Iron Ore Sinter during the Gas-Solid Reduction -- Roasting Kinetics of Molybdenite Concentrates -- Study on Influences of Different Ti-bearing Materials on MgO-bearing Pellets Metallurgical Properties -- Supergravity Separation of Pb and Sn from Waste Printed Circuit Boards -- The Effect of Temperature and Additive on Transport and Transformation of P of High-phosphorus Iron Ore during Carbothermic Reduction -- Thermodynamic Calculations on Direct Reduction of Chromium-bearing Vanadium Titanium Magnetite.

## Sommario/riassunto

In recent years, global metallurgical industries have experienced fast and prosperous growth. High-temperature metallurgical technology is the backbone to support the technical, environmental, and economical needs for this growth. This collection features contributions covering the advancements and developments of new high-temperature metallurgical technologies and their applications to the areas of processing of minerals; extraction of metals; preparation of refractory and ceramic materials; sintering and synthesis of fine particles; treatment and recycling of slag and wastes; and saving of energy and protection of environment. The volume will have a broad impact on the

academics and professionals serving the metallurgical industries  
around the world.

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