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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

Shaft Furnaces. The Metcarb Model -- CFD Modeling of Flow and Chemical Reactions in a Submerged Lance Copper Smelting Furnace -- Numerical Simulation of Ultrasound-Induced Cavitation Bubbling in a Calcium Ferrite Melt -- Part 3. Alloys and Materials Preparation -- Synthesis of Nanocrystalline Carbide Ceramics via Reduction of Anion-loaded Activated Carbon Precursors -- Production of Lithium-Ion Cathode Material for Automotive Batteries Using Melting Casting Process -- Part 4. Fundamental Research on High Temperature Metallurgical Processing -- Degradation Mechanisms of Refractories in a Bottom Blown Copper Smelting Furnace -- Reaction Routes of CaO-Fe2O3-TiO2 and Calcium Ferrite-TiO2 System in Continuous Heating Process -- Thermodynamic Calculations on Electric Furnace Smelting Separation of Chromium-bearing Vanadium Titanium Magnetite -- Preparation for High Activity Lime and its Effect on Desulfurization of Hot Metal Pretreatment -- Part 5. Extraction and Recovery of Metals -- An Industry Overlook of Secondary Lead Pyrometallurgical Processing -- Recovery of Aluminium and its Compounds with Hydro and Pyrometalurgical Methods from Non-metallic Residue -- Purification of Molten Zinc Chloride-Alkali Chloride by Cementation Reaction -- Thermodynamic Analysis of Smelting of Spent Catalysts for Recovery of Platinum Group Metals -- Preparation of Titanium Foams through Direct Electrolysis of the Sintered CaO-TiO2 in Molten Salt CaCl2 -- Experimental Study on Oxidative Desulfurization and Selective Reduction of Molten Copper Slag -- Recycling SiO2 and Al2O3 from the Metallurgical Slag of Nickel Laterite Ores in Molten Sodium Hydroxides -- Remove Sulfur in Copper Dross from Refining Lead by Converting Process -- Part 6. Treatment and Recycling of Metallurgical Slag/Solid Wastes -- Recovery of Fe-Cu Alloys from Copper Slags -- Physiochemical Properties of High Alumina Blast Furnace Slag -- Effect of Cooling Rate on the Acidolysis of Titania Slag -- Structural Analysis of Ge-containing Ferrous Calcium Silicate Magnesia Slag for Applications of Black Copper Smelting -- Selective Recovery of P and Mn from Steelmaking Slag by Carbothermic Reduction -- The Use of Zirconia-based Solid Electrolytes Oxygen Sensor in High Titanium Slag -- In-situ Observation of the Precipitation Behavior of Dy2O3 Containing Slag System -- Recovery of Zn and Mn from Spent Alkaline Batteries -- Part 7. Ironmaking, Steelmaking and Casting -- Optimization of Exothermic Riser Sleeve Design Parameters -- Assessment of Gas-Slag-Metal Interaction during a Converter Steelmaking Process -- On the Role of Nb on the Texture and Mechanical Properties of a Novel As-rolled Medium Carbon Wear Resistant Slurry Pipeline Steel -- A Statistical Analysis of Process Abnormalities in Slab Casting -- Effect of Density Difference on Particle Segregation Behaviors at Bell-less Top Blast Furnace with Parallel-type Hopper -- The Effect of Austenitizing Temperature on Hardenability, Precipitation and Mechanical Properties of Boron Bearing Cr-Mo Alloy Steel -- Part 8. Agglomeration and Direct Reduction of Complex Iron Ores -- Study on Direct Reduction Melting Separation-leaching Process of Disposal Rare Earth Composite Iron Ore -- Reduction Behavior of Garnierite Using Methane by Roasting-Magnetic Separation Method -- Effect of Calculation Method of CaO Addition on Liquid Phase Fluidity -- Effect of Carbon Coating on Magnetite Reduction -- Optimization Method for Iron Ore Blending Based on the Sintering Basic Characteristics of Blended Ore -- Study on Direct Reduction of Low-grade Iron Ore-coal Mini-pellets in Coal-based Rotary Kiln -- Part 9. Poster Session I -- Controlled Synthesis of TiC Nanoparticles Using Solid Oxide Membrane Technology in Molten CaCl2 -- Effect of Chemical Components of Mould Flux on Dissolution Rate of Al2O3 into

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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 the 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 metallic, refractory and ceramic materials; 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.