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| Titolo | Advances and Innovations in Ferronickel-Making [[electronic resource] /] / by Guanghui Li, Jun Luo, Mingjun Rao, Zhiwei Peng, Tao Jiang |
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| Nota di contenuto | An Overview of Nickel Utilization from Laterite Ores -- Fundamentals of Selective Solid-State Reduction and Novel Process for Preparing Ferronickel from Laterite Ores -- Technologies of Slag Formation Control in Electric Arc Furnace Smelting of Laterite Ores -- Softening-Melting Properties of Laterite Ore and their Regulation Technologies for the Krupp-Renn Process and Sintering Process -- Valorization of Ferronickel Slag for Preparing Refractory and Thermal Insulation Materials -- Recycling of Stainless-Steel Pickling Sludge Via RKEF Route. |
| Sommario/riassunto | This book introduces the most inspiring progress in the production of ferronickel from laterite ores, from both theoretical and technological perspectives. Based on a detailed overview of nickel utilization from laterite ores, it provides the advances of four main methods for laterite ore processing, including the solid-sate reduction-magnetic separation process, the rotary kiln reduction-electric arc furnace smelting process, the Krupp-Renn process, and the sintering-blast furnace smelting process. Moreover, for mediating the adverse impacts of the byproducts in ferronickel and subsequent stainless-steel making, it presents pioneering technologies of utilization of ferronickel slag for producing value-added functional materials and recycling of stainless- |

steel pickling sludge for ferronickel making. This book is expected to offer the audiences a fascinating new insight into ferronickel making and related by-products valorization.
