

ABSTRACT

MELTING OF D-R MATERIALS

STEELMAKING SLAGS

by

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Methods of melting Direct Reduced Iron (DRI) may be optimized through a quantitative analysis of the final reduction-heat transfer systems involved.

The rates of melting of metallized particles in slags as influenced by various system variables as (a) the physical and chemical properties of the slag, (b) the rate of ultimate reduction of the direct reduced iron, (c) the evolution of gas formed in the particles, and (d) the rate of flow of the molten bath of slag all affect the rate of melting of the bath into the particles.

The rates of evolution and analysis of gases from various degrees of metallization ranging from 20 to 100% determined by heating these materials in an electric furnace. The rate of flow and composition of the gas evolved

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