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Soggetti	Metals Engineering design Chemical engineering Pollution prevention Energy efficiency Metallic Materials Engineering Design Industrial Chemistry/Chemical Engineering Industrial Pollution Prevention Energy Efficiency
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Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Flat bath is a revolutionary change of technological process -- Implementation of a new -- Theoretical analysis of both basic dependences and limiting factors of the flat bath technology -- Intensification of melting a scrap in the liquid metal -- High-temperature preheating a scrap -- Satisfying environmental regulations -- Fuel arc furnace (FAF) as a steel melting unit of proximate future.
Sommario/riassunto	The book contains an analysis of theoretical dependences, bottlenecks

and limiting factors of a new technology used in both Consteel and shaft furnaces operating with flat bath. Performances obtained and potentialities of these furnaces are examined. Based on this analysis, a steel melting aggregate of the new type – fuel arc furnace FAF has been developed and offered. In comparison with the best modern electric arc furnaces of identical capacity the productivity of FAF is higher by 36% and electrical energy consumption is lower by a factor of 1.8. Environment characteristics are considerably improved.