

1. Record Nr.	UNINA9910298616203321
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Titolo	Electric Arc Furnace with Flat Bath : Achievements and Prospects // by Yuri N. Toulouevski, Ilyaz Y. Zinurov
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2015
ISBN	3-319-15886-4
Edizione	[1st ed. 2015.]
Descrizione fisica	1 online resource (138 p.)
Collana	SpringerBriefs in Applied Sciences and Technology, , 2191-530X
Disciplina	363.737 620.0042 620.11 620.16 658.26 660
Soggetti	Metals Engineering design Chemical engineering Pollution prevention Energy consumption Metallic Materials Engineering Design Industrial Chemistry/Chemical Engineering Industrial Pollution Prevention Energy Efficiency
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
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.
