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Titolo	Microstructure and Properties of Ductile Iron and Compacted Graphite Iron Castings : The Effects of Mold Sand/Metal Interface Phenomena / / by Mariusz Holtzer, Marcin Górny, Rafal Dako
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Soggetti	Metals Thermodynamics Heat engineering Heat transfer Mass transfer Manufactures Metallic Materials Engineering Thermodynamics, Heat and Mass Transfer Manufacturing, Machines, Tools, Processes
Lingua di pubblicazione	Inglese
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Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	From the Contents: Introduction -- Influence of mould-metal interactions on the microstructure of castings – literature studies -- Mould sand system in foundry.
Sommario/riassunto	This book provides an overview of the surface effects at the interface boundary of metal/sand moulds, and their influence on the surface quality, microstructure and mechanical and anticorrosive properties of high-quality cast iron. It explores utilitarian aspects of the production of high-quality cast iron castings, including thin-walled castings of high-quality cast iron alloys, and examines problems related to the determination of moulding sands and reclaim quality, and their influence on castings. Presenting new material, this book takes into account the influence of metal quality, pouring temperature,

solidification time, the quality of moulding sand with the reclaim application, as well the binders of moulding sands, on the formation of the degenerated graphite near surface layers. It also employs the latest research methods, such as a wavelength-dispersive spectrometer (WDS) analysis and thermodynamic calculations, which were carried out on the reactions occurring in the study area. Providing a valuable resource to academics and researchers interested in materials science, metal casting and metallurgy, this book is also intended for metal industry professionals.