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Autore	Krauss George <1933-, >
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ISBN	1-68015-517-2 1-62708-084-8
Edizione	[Second edition.]
Descrizione fisica	1 online resource (704 p.)
Disciplina	672
Soggetti	Steel
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 and index at the end of each chapters.
Nota di contenuto	Introduction: Purpose of text, microstructure and analysis, steel definitions, and specifications -- History and primary steel processing -- Phases and structures -- Pearlite, ferrite, and cementite -- Martensite -- Bainite -- Ferritic microstructures -- Austenite in steel -- Primary processing effects on steel microstructure and properties -- Isothermal and continuous cooling transformation diagrams -- Deformation, strengthening, and fracture of ferritic microstructures -- Low-carbon steels -- Normalizing, annealing, and spheroidizing treatments; ferrite/pearlite and spherical carbides -- Non-martensitic strengthening of medium-carbon steels-microalloying and bainitic strengthening -- High-carbon steels-fully pearlitic microstructures and wire and rail applications -- Hardness and hardenability -- Tempering of steel -- Deformation, mechanical properties, and fracture of quenched and tempered carbon steels -- Low toughness and embrittlement phenomena in steels -- Residual stresses, distortion, and heat treatment -- Surface hardening -- Surface modification -- Stainless steels -- Tool steels -- Appendix: Hardness conversions.
Sommario/riassunto	In the second edition of this best-selling book, new information and references are integrated into chapters. Emphasis is still on processing, alloying, microstructure, deformation, fracture and properties of major steel types ranging from low-carbon sheet steels, pearlitic rail and wire steels, to quench and tempered medium- and high-carbon martensitic

steels.