

1. Record Nr.	UNINA9910460591803321
Autore	Fridman Alexander A. <1953->
Titolo	Plasma physics and engineering // by Alexander Fridman and Lawrence A. Kennedy
Pubbl/distr/stampa	Boca Raton, FL : , : CRC Press, an imprint of Taylor and Francis, , 2011
ISBN	0-429-19075-1 1-4398-1229-2
Edizione	[Second edition.]
Descrizione fisica	1 online resource (912 p.)
Disciplina	530.4/4
Soggetti	Plasma (Ionized gases) Plasma engineering Electronic books.
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	Front cover; Contents; Preface; Acknowledgments; Authors; Part I. Fundamentals of Plasma Physics and Plasma Chemistry; Chapter 1. Plasma in Nature, in the Laboratory, and in Industry; Chapter 2. Elementary Processes of Charged Species in Plasma; Chapter 3. Elementary Processes of Excited Molecules and Atoms in Plasma; Chapter 4. Plasma Statistics and Kinetics of Charged Particles; Chapter 5. Kinetics of Excited Particles in Plasma; Chapter 6. Electrostatics, Electrodynamics, and Fluid Mechanics of Plasma; Part II. Physics and Engineering of Electric Discharges; Chapter 7. Glow Discharge Chapter 8. Arc Discharges Chapter 9. Nonequilibrium Cold Atmospheric Pressure Discharges; Chapter 10. Plasma Created in High-Frequency Electromagnetic Fields: Radio Frequency, Microwave, and Optical Discharges; Chapter 11. Discharges in Aerosols, Dusty Plasmas, and Liquids; Chapter 12. Electron Beam Plasmas; References; Back cover
Sommario/riassunto	Plasma plays an important role in a wide variety of industrial processes, including material processing, environmental control, electronic chip manufacturing, light sources, and green energy, not to mention fuel conversion and hydrogen production, biomedicine, flow control, catalysis, and space propulsion.

2. Record Nr.	UNINA9910484662303321
Autore	Liu Yuncai
Titolo	The operation of contemporary blast furnaces / / Yuncai Liu
Pubbl/distr/stampa	Singapore : , : Springer, , [2021] ©2021
ISBN	981-15-7074-4
Edizione	[1st ed. 2021.]
Descrizione fisica	1 online resource (XXVIII, 455 p. 282 illus.)
Disciplina	669.1413
Soggetti	Blast furnaces
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	The Operation of Contemporary Blast Furnace -- The Activation of the Hearth -- The Structure of Stock Column and the Control of Gas Distribution -- The Stabilization Furnace Temperature -- The Control of Slag Composition -- Tapping of Iron and Slag -- Basic Operation of Blast Furnace -- Precaution and Disposition of Furnace Breakage -- Scaffolding -- Blast Furnace Blowing on -- Blowing out, Banking and Blowing off -- The Explosion of Blast Furnace.
Sommario/riassunto	This book focuses on how to keep blast furnaces running stably and smoothly with low consumption and long operating life spans. Assessing and adjusting blast furnace performance are key to operation. The book describes in detail cases of both successful and failed blast furnace operation. It also demonstrates various phenomena and "symptoms" in the smelting process that have rarely been studied before, e.g. abnormal gas distribution, bending loss of tuyere, slag crust fall-off, blast furnace thickening, and hearth accumulation. As such, it will help readers understand internal phenomena in blast furnaces, providing a basis for developing intelligent control and management systems. .