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Autore	Xie Ke-Chang
Titolo	Structure and Reactivity of Coal [[electronic resource]] : A Survey of Selected Chinese Coals // by Ke-Chang Xie
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ISBN	3-662-47337-2
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Descrizione fisica	1 online resource (416 p.)
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Soggetti	Fossil fuels Energy systems Chemical engineering Fossil Fuels (incl. Carbon Capture) Energy Systems Industrial Chemistry/Chemical Engineering
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 at the end of each chapters.
Nota di contenuto	Geological Characteristics of coal -- Physical Characteristics of Coal -- Chemical Characteristics of Coal -- Coal Pyrolysis Reactions -- Coal Gasification -- Coal Depolymerization and Liquefaction -- Coal Combustion -- Coal Swelling -- Coal Plasma Reactions.
Sommario/riassunto	This book provides insights into the development and usage of coal in chemical engineering. The reactivity of coal in processes such as pyrolysis, gasification, liquefaction, combustion and swelling is related to its structural properties. Using experimental findings and theoretical analysis, the book comprehensively answers three crucial issues that are fundamental to the optimization of coal chemical conversions: What is the structure of coal? How does the underlying structure determine the reactivity of different types of coal? How does the structure of coal alter during coal conversion? This book will be of interest to both individual readers and institutions involved in teaching and research into chemical engineering and energy conversion technologies. It is

aimed at advanced- level undergraduate students. The text is suitable for readers with a basic knowledge of chemistry, such as first-year undergraduate general science students. Higher-level students with an in-depth understanding of the chemistry of coal will also benefit from the book. It will provide a useful reference resource for students and university-level teachers, as well as practicing engineers.
