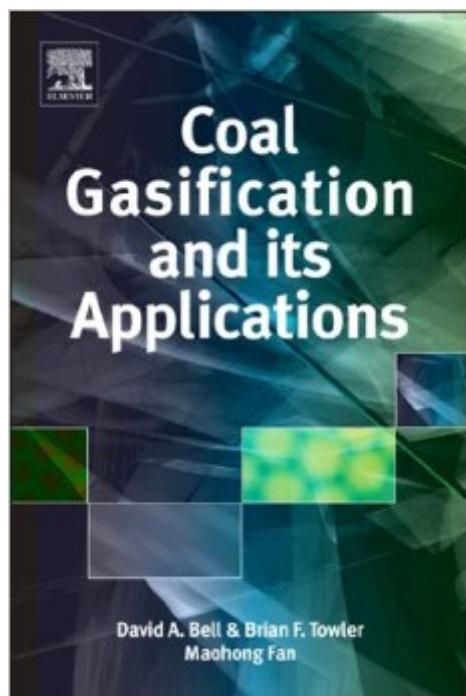


The book was found

Coal Gasification And Its Applications



Synopsis

Skyrocketing energy costs have spurred renewed interest in coal gasification. Currently available information on this subject needs to be updated, however, and focused on specific coals and end products. For example, carbon capture and sequestration, previously given little attention, now has a prominent role in coal conversion processes. This book approaches coal gasification and related technologies from a process engineering point of view, with topics chosen to aid the process engineer who is interested in a complete, coal-to-products system. It provides a perspective for engineers and scientists who analyze and improve components of coal conversion processes. The first topic describes the nature and availability of coal. Next, the fundamentals of gasification are described, followed by a description of gasification technologies and gas cleaning processes. The conversion of syngas to electricity, fuels and chemicals is then discussed. Finally, process economics are covered. Emphasis is given to the selection of gasification technology based on the type of coal fed to the gasifier and desired end product: E.g., lower temperature gasifiers produce substantial quantities of methane, which is undesirable in an ammonia synthesis feed. This book also reviews gasification kinetics which is informed by recent papers and process design studies by the US Department of Energy and other groups, and also largely ignored by other gasification books.

Approaches coal gasification and related technologies from a process engineering point of view, providing a perspective for engineers and scientists who analyze and improve components of coal conversion processes

Describes the fundamentals of gasification, gasification technologies, and gas cleaning processes

Emphasizes the importance of the coal types fed to the gasifier and desired end products

Covers gasification kinetics, which was largely ignored by other gasification books

Provides a perspective for engineers and scientists who analyze and improve components of the coal conversion processes

Describes the fundamentals of gasification, gasification technologies, and gas cleaning processes

Covers gasification kinetics, which was largely ignored by other gasification books

Book Information

File Size: 4525 KB

Print Length: 416 pages

Publisher: William Andrew; 1 edition (December 8, 2010)

Publication Date: December 8, 2010

Sold by: Digital Services LLC

Language: English

ASIN: B004KA9V92

Text-to-Speech: Enabled

X-Ray: Not Enabled

Word Wise: Not Enabled

Lending: Not Enabled

Enhanced Typesetting: Not Enabled

Best Sellers Rank: #2,557,638 Paid in Kindle Store (See Top 100 Paid in Kindle Store) #93
in Books > Engineering & Transportation > Engineering > Energy Production & Extraction > Fossil Fuels > Coal #431 in Kindle Store > Kindle eBooks > Engineering & Transportation > Engineering > Petroleum #980 in Kindle Store > Kindle eBooks > Nonfiction > Science > Earth Sciences > Geology

Customer Reviews

The author had the good idea to present formulas for Ash Fusion Temperature taken from Seggiani and Pannochia. It was even a better idea to present the formulas in a readable format. Unfortunately, the author did not realize that the SV (silica value) and the DR (dolomite ratio) were defined on a weight basis, while all other formulas were defined on a mole basis. The resulting formulas 1.4 to 1.8 are therefore unreliable if you do not use the original paper at the same. This ruins the whole idea of writing such a book, if the formulas are not reliable.

[Download to continue reading...](#)

Coal Gasification and Its Applications Gasification: Chemistry, Processes and Applications (Energy Science, Engineering and Technology) Trace Elements in Coal and Coal Combustion Residues (Advances in Trace Substances Research) The Buffalo Creek Disaster: How the Survivors of One of the Worst Disasters in Coal-Mining History Brought Suit Against the Coal Company- And Won The Coal Handbook: Towards Cleaner Production: Coal Production (Woodhead Publishing Series in Energy) Economics of the International Coal Trade: The Renaissance of Steam Coal Handbook of Coal Analysis (Chemical Analysis: A Series of Monographs on Analytical Chemistry and Its Applications) Gasification, Second Edition Gasification The City in History: Its Origins, Its Transformations, and Its Prospects Terrigenous Clastic Depositional Systems: Applications to Petroleum, Coal, and Uranium Exploration Molybdenum and Its Compounds: Applications, Electrochemical Properties and Geological Implications (Chemistry Research and Applications) Structural Analysis: With Applications to Aerospace Structures (Solid Mechanics and Its Applications) 21st Century Guide to Carbon Sequestration - Capture and Storage to Fight Global

Warming and Control Greenhouse Gases, Carbon Dioxide, Coal Power, Technology Roadmap and Program Plan Witness to the Revolution: Radicals, Resisters, Vets, Hippies, and the Year America Lost Its Mind and Found Its Soul Surgical Pathology of the Nervous System and its Coverings, 4e (Burger, Surgical Pathology of the Nervous System and its coverings) Mining Coal and Undermining Gender: Rhythms of Work and Family in the American West Spiritual Depression: Its Causes and Its Cure Concrete Boat Building: Its Techniques and Its Future Niagara-on-the-Lake: Its Heritage and Its Festival (Lorimer Illustrated History)

[Dmca](#)