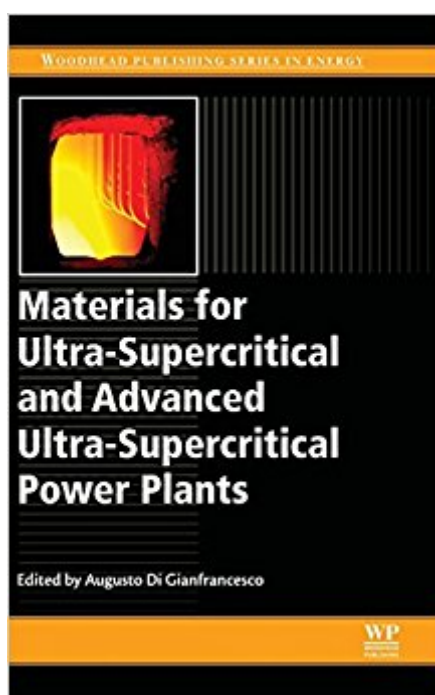


The book was found

Materials For Ultra-Supercritical And Advanced Ultra-Supercritical Power Plants (Woodhead Publishing Series In Energy)



Synopsis

Materials for Ultra-Supercritical and Advanced Ultra-Supercritical Power Plants provides researchers in academia and industry with an essential overview of the stronger high-temperature materials required for key process components, such as membrane wall tubes, high-pressure steam piping and headers, superheater tubes, forged rotors, cast components, and bolting and blading for steam turbines in USC power plants. Advanced materials for future advanced ultra-supercritical power plants, such as superalloys, new martensitic and austenitic steels, are also addressed. Chapters on international research directions complete the volume. The transition from conventional subcritical to supercritical thermal power plants greatly increased power generation efficiency. Now the introductions of the ultra-supercritical (USC) and, in the near future, advanced ultra-supercritical (A-USC) designs are further efforts to reduce fossil fuel consumption in power plants and the associated carbon dioxide emissions. The higher operating temperatures and pressures found in these new plant types, however, necessitate the use of advanced materials. Provides researchers in academia and industry with an authoritative and systematic overview of the stronger high-temperature materials required for both ultra-supercritical and advanced ultra-supercritical power plants. Covers materials for critical components in ultra-supercritical power plants, such as boilers, rotors, and turbine blades. Addresses advanced materials for future advanced ultra-supercritical power plants, such as superalloys, new martensitic and austenitic steels. Includes chapters on welding technologies.

Book Information

Series: Woodhead Publishing Series in Energy

Hardcover: 900 pages

Publisher: Woodhead Publishing; 1 edition (September 22, 2016)

Language: English

ISBN-10: 0081005520

ISBN-13: 978-0081005521

Product Dimensions: 6 x 1.9 x 9 inches

Shipping Weight: 3.2 pounds (View shipping rates and policies)

Average Customer Review: Be the first to review this item

Best Sellers Rank: #1,024,474 in Books (See Top 100 in Books) #139 in Books > Engineering & Transportation > Engineering > Energy Production & Extraction > Power Systems #158 in Books > Business & Money > Industries > Energy & Mining > Natural Resource Extraction

Customer Reviews

Dr Augusto Di Gianfrancesco is a Materials & Technologies Consultant, Italy. He was based at Centro Sviluppo Materiali (CSM), Rome, Italy 1983 until 2014. He held Senior Metallurgist and Project Leader positions on "High Temperature Materials". He was responsible for R&D activities on steels and superalloys for high temperature applications in power generation plants. He was also member of Management Committee of EU Program COST 522-536, co-founder of the European Creep Collaborative Committee and co-founder of the Italian Working Group on Creep Resistant Materials. In addition he has been member of the International Board of the 5th, 6th & 7th EPRI International Conferences on Advances in Materials Technology for Fossil Power Plants, METAL2013/4/5, the 6th International Conference on Creep, Fatigue and Creep-Fatigue Interaction, and vice chairman of the 3rd ECCC Conference held 2014 in Rome. He is author and/or co-author of more than 280 technical reports and more than 100 papers presented in national and international conferences or magazines.

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

Materials for Ultra-Supercritical and Advanced Ultra-Supercritical Power Plants (Woodhead Publishing Series in Energy) Ultra-Supercritical Coal Power Plants: Materials, Technologies and Optimisation (Woodhead Publishing Series in Energy) House Plants: A Guide to Keeping Plants in Your Home (House Plants Care, House Plants for Dummies, House Plants for Beginners, Keeping Plants in Your Home, DIY House Plants Book 1) Coal Power Plant Materials and Life Assessment: Developments and Applications (Woodhead Publishing Series in Energy) Air Plants: A Beginners Guide To Understanding Air Plants, Growing Air Plants and Air Plant Care (Air Plants, Ornamental Plants, House Plants) Handbook of Organic Materials for Optical and (Opto)Electronic Devices: Properties and Applications (Woodhead Publishing Series in Electronic and Optical Materials) Advances in Wind Turbine Blade Design and Materials (Woodhead Publishing Series in Energy) Advances in Concentrating Solar Thermal Research and Technology (Woodhead Publishing Series in Energy) Principles and Applications of Organic Light Emitting Diodes (OLEDs) (Woodhead Publishing Series in Electronic and Optical Materials) Quantum Information Processing with Diamond: Principles and Applications (Woodhead Publishing Series in Electronic and Optical Materials) Lasers for Medical Applications: Diagnostics, Therapy and Surgery (Woodhead Publishing Series in Electronic and Optical Materials) The Coal Handbook: Towards Cleaner

Production: Volume 2: Coal Utilisation (Woodhead Publishing Series in Energy) The Coal Handbook: Towards Cleaner Production: Volume 1: Coal Production (Woodhead Publishing Series in Energy) Solar Power: The Ultimate Guide to Solar Power Energy and Lower Bills: (Off Grid Solar Power Systems, Home Solar Power System) (Living Off Grid, Wind And Solar Power Systems) KINDLE PUBLISHING: How To Build A Successful Self-Publishing Business With Kindle and Createspace. A Detailed, Step-By-Step Guide To The Entire Process (Kindle Publishing Series Book 1) Nuclear energy. Radioactivity. Engineering in Nuclear Power Plants: Easy course for understanding nuclear energy and engineering in nuclear power plans (Radioactive Disintegration) Structural Dynamics of Earthquake Engineering: Theory and Application Using Mathematica and Matlab (Woodhead Publishing Series in Civil and Structural Engineering) Fracture and Fatigue of Welded Joints and Structures (Woodhead Publishing Series in Welding and Other Joining Technologies) Strengthening of Reinforced Concrete Structures: Using Externally-Bonded Frp Composites in Structural and Civil Engineering (Woodhead Publishing Series in Civil and Structural Engineering) Advances in Wrought Magnesium Alloys: Fundamentals of Processing, Properties and Applications (Woodhead Publishing Series in Metals and Surface Engineering)

[Contact Us](#)

[DMCA](#)

[Privacy](#)

[FAQ & Help](#)