

Batteries and charging: An online reading list from the IET Library



These ebooks and ejournals, available via the [IET Virtual Library](https://theiet.org/virtual-library), have been selected to provide an introduction to the topic of batteries and charging covering topics such as chemistry, electric vehicles and safety.

Ebooks (provided by EBSCO and Knovel)

Functional Materials For Next-generation Rechargeable Batteries, Jiangfeng Ni and Li Lu. (2021). This book starts with principles and fundamentals of lithium rechargeable batteries, followed by their designs and assembly and then focuses on the recent progress in the development of advanced functional materials.

Energy Storage : Systems and Components, Alfred Rufer. (2018). From systems using electrochemical transformations, to classical battery energy storage elements and flow batteries, to fuel cells and hydrogen storage, this book further investigates storage systems based on physical principles.

Battery Operated Devices and Systems - From Portable Electronics to Industrial Products. (2009). This book provides a comprehensive guide to battery technology covering battery applications, categories and types, portable applications, industrial applications and usage in vehicles.

Energy Storage Devices for Renewable Energy-Based Systems - Rechargeable Batteries and Supercapacitors (2nd Edition), Nihal Kularatna and Kosala Gunawardane. (2021). This book is a fully revised edition of this comprehensive overview of the concepts, principles and practical knowledge on energy storage devices.

Industrial Applications of Batteries - From Cars to Aerospace and Energy Storage, M. Broussely and G. Pistoia, (2007). Written by leading scientists in their fields, this book looks at both the application and the batteries, and covers the relevant scientific and technological features.

Lead-Acid Batteries - Science and Technology - A Handbook of Lead-Acid Battery Technology and its Influence on the Product (2nd Edition), Detchko Pavlov. (2017). This book presents a comprehensive overview of the technological processes of lead-acid battery manufacture and their influence on performance parameters.

Rechargeable Batteries - History, Progress, and Applications, Boddula et al. (2020). This book looks at rechargeable batteries in the context of a global energy revolution and the role they can play in moving toward a fossil-fuel-free society, covering energy storage, transportation and electronics.

Behaviour of Lithium-Ion Batteries in Electric Vehicles : Battery Health, Performance, Safety, and Cost, Gianfranco Pistoia and Boryann Liaw. (2018). This book surveys state-of-the-art research on and developments in lithium-ion batteries for hybrid and electric vehicles. It summarizes their features in terms of performance, cost, service life, management, charging facilities, and safety.

Battery Management Algorithm for Electric Vehicles, Rui Xiong. (2020). This book systematically introduces readers to the core algorithms of battery management system (BMS) for electric vehicles. These algorithms cover most of the technical bottlenecks encountered in BMS applications.

Optimal Charging Control of Electric Vehicles in Smart Grids, Wanrong Tang and Ying Jun (Angela) Zhang. (2017). This book introduces the optimal online charging control of electric vehicles (EVs) and battery energy storage systems (BESSs) in smart grids. The goal is to minimize the total energy cost as well as reduce the fluctuation of the total power flow caused by the integration of the EVs and renewable energy generators.

Ejournals (provided by EBSCO)

Energies. (Covers topics related to energy sources & systems, including technology development, engineering, energy policy, and energy management.)

Batteries International. (This title is the market leading magazine serving the battery and energy storage business.)

Chemistry International. (Publishes news about IUPAC, its chemists, its publications, its recommendations, its conferences, and the work of its commissions and committees.)

Automotive Logistics. (Features, reports, interviews & news of the partnerships & developments in vehicle logistics globally.)

Automotive Design and Production. (Covers the interrelationships between automotive product development and manufacturing processes.)

Journal of Power Technologies. (Provides a forum on all aspects of the science, technology and developing of hydro power, nuclear energy, fuel cells, and renewable energy.)

International journal of green energy. (Covers all aspects of energy technologies, covering environmentally friendly technologies and systems, and advanced technologies for energy conversion and power generation.)

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