



# Lead-Acid Batteries: Science and Technology

By D. Pavlov

Download now

Read Online ➔

## Lead-Acid Batteries: Science and Technology By D. Pavlov

The book presents a comprehensive overview of the theory of the technological processes of lead-acid battery manufacture and their influence on battery performance parameters. It summarizes the current knowledge about the technology of lead-acid battery production and presents it in the form of an integral theory. This theory is supported by ample illustrative material and experimental data, thus allowing technologists and engineers to control the technological processes in battery plants and providing university lecturers with a tool for clear and in-depth presentation of the technology of lead-acid battery production in their courses. The relationship between the technological processes and the performance characteristics of the batteries is disclosed too.

- Disclosure of the structures of the lead and lead dioxide active masses, ensuring reversibility of the processes during charge and discharge and thus long cycle life of the battery
- Proposal of optimum conditions for individual technological processes which would yield appropriate structures of the lead and lead dioxide active masses
- Disclosure of the influence of  $H_2SO_4$  concentration on battery performance parameters
- Discussion of the processes involved in the closed oxygen cycle in VRLAB and the thermal phenomena leading to thermal runaway (TRA)
- Elucidation of the relationship between technology of battery manufacture and battery capacity and cycle life performance

↓ [Download Lead-Acid Batteries: Science and Technology ...pdf](#)

📖 [Read Online Lead-Acid Batteries: Science and Technology ...pdf](#)

# Lead-Acid Batteries: Science and Technology

*By D. Pavlov*

## Lead-Acid Batteries: Science and Technology By D. Pavlov

The book presents a comprehensive overview of the theory of the technological processes of lead-acid battery manufacture and their influence on battery performance parameters. It summarizes the current knowledge about the technology of lead-acid battery production and presents it in the form of an integral theory. This theory is supported by ample illustrative material and experimental data, thus allowing technologists and engineers to control the technological processes in battery plants and providing university lecturers with a toll for clear and in-depth presentation of the technology of lead-acid battery production in their courses. The relationship between the technological processes and the performance characteristics of the batteries is disclosed too.

- Disclosure of the structures of the lead and lead dioxide active masses, ensuring reversibility of the processes during charge and discharge and thus long cycle life of the battery
- Proposal of optimum conditions for individual technological processes which would yield appropriate structures of the lead and lead dioxide active masses
- Disclosure of the influence of  $H_2SO_4$  concentration on battery performance parameters
- Discussion of the processes involved in the closed oxygen cycle in VRLAB and the thermal phenomena leading to thermal runaway (TRA)
- Elucidation of the relationship between technology of battery manufacture and battery capacity and cycle life performance

## Lead-Acid Batteries: Science and Technology By D. Pavlov Bibliography

- Sales Rank: #1372867 in Books
- Published on: 2011-08-09
- Original language: English
- Number of items: 1
- Dimensions: 9.50" h x 7.50" w x 1.50" l, 3.40 pounds
- Binding: Hardcover
- 656 pages

 [Download Lead-Acid Batteries: Science and Technology ...pdf](#)

 [Read Online Lead-Acid Batteries: Science and Technology ...pdf](#)

## **Editorial Review**

### **Review**

*"The text is very accessible, being just as easy to navigate to specific sections for required information as it is to read in sequence as a textbook. The figures and tables are clearly presented and the text is accompanied by a comprehensive list of references for anyone requiring further information or original sources. This book is an up to date resource for lead-acid batteries and should be an essential on the bookshelf of anyone, academic or industrialist, working in the field or with an interest in the chemistry."***--Chemistry World**

### **About the Author**

Detchko Pavlov is Professor of Electrochemistry and, since 1997, Full Member of the Bulgarian Academy of Sciences. He is one of the founders of the Central Laboratory of Electrochemical Power Sources (CLEPS) (now IEES) at the Bulgarian Academy of Sciences and has been Head of the Lead Acid Batteries Department at this Institute for over 45 years since its establishment in 1967. His major scientific achievements are in the field of electrochemistry of lead; disclosing the structure of the lead and lead dioxide active masses; elucidating the mechanism of the processes involved in the technology of lead-acid battery manufacture and operation, as well as of the oxygen cycle reactions in VRLAB. His recent research efforts have been focused on evaluation of the effects of carbon additives to the negative plates and identification of the mechanism(s) of their action.

## **Users Review**

### **From reader reviews:**

#### **Robert Jones:**

In this 21st millennium, people become competitive in every single way. By being competitive right now, people have to do something to make themselves survive, being in the middle of typically the crowded place and notice simply by surrounding. One thing that occasionally many people have underestimated is for a while is reading. Yeah, by reading a book your ability to survive enhances then having a chance to endure than other is high. For you personally who want to start reading a book, we give you this specific Lead-Acid Batteries: Science and Technology book as a beginner and daily reading publication. Why, because this book is more than just a book.

#### **David Browning:**

Your reading sixth sense will not betray a person, why because this Lead-Acid Batteries: Science and Technology publication written by well-known writer we are excited for well how to make a book that can be understood by anyone who else reads the book. Written in a good manner for you, still dripping with every idea and composing skill only for to eliminate your own hunger then you still have hesitation Lead-Acid Batteries: Science and Technology as a good book not just by the cover but also with the content. This is one e-book that can break don't ascertain a book by its protect, so do you still need yet another sixth sense to pick that!? Oh come on your looking at sixth sense already alerted you so why you have to listening to an additional sixth

sense.

**Christy McCurry:**

Within this era which is the greater individual or who has ability to do something more are more special than other. Do you want to become considered one of it? It is just simple solution to have that. What you are related is just spending your time little but quite enough to experience a look at some books. On the list of books in the top checklist in your reading list is Lead-Acid Batteries: Science and Technology. This book which is qualified as The Hungry Mountains can get you closer in becoming precious person. By looking up and review this publication you can get many advantages.

**Ann Gonzalez:**

Publication is one of source of understanding. We can add our information from it. Not only for students and also native or citizen want book to know the update information of year to year. As we know those books have many advantages. Beside we all add our knowledge, also can bring us to around the world. Through the book Lead-Acid Batteries: Science and Technology we can acquire more advantage. Don't you to be creative people? To be creative person must love to read a book. Merely choose the best book that ideal with your aim. Don't become doubt to change your life at this book Lead-Acid Batteries: Science and Technology. You can more pleasing than now.

**Download and Read Online Lead-Acid Batteries: Science and Technology By D. Pavlov #HS61XT572RB**

# **Read Lead-Acid Batteries: Science and Technology By D. Pavlov for online ebook**

Lead-Acid Batteries: Science and Technology By D. Pavlov Free PDF d0wnl0ad, audio books, books to read, good books to read, cheap books, good books, online books, books online, book reviews epub, read books online, books to read online, online library, greatbooks to read, PDF best books to read, top books to read Lead-Acid Batteries: Science and Technology By D. Pavlov books to read online.

## **Online Lead-Acid Batteries: Science and Technology By D. Pavlov ebook PDF download**

**Lead-Acid Batteries: Science and Technology By D. Pavlov Doc**

**Lead-Acid Batteries: Science and Technology By D. Pavlov Mobipocket**

**Lead-Acid Batteries: Science and Technology By D. Pavlov EPub**

**HS61XT572RB: Lead-Acid Batteries: Science and Technology By D. Pavlov**