

## Book Review

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### *Fünftes Internationales Technisches Symposium Notstromversorgung mit Batterien*

Published by VDE-Verlag GmbH, Berlin, 1987, 437 pp.

This book contains the text, in German, of the papers presented at the Fifth International Technical Symposium on Emergency Power Supply by Batteries (March, 1987), the discussion on them, the general discussion at the end of the meeting, and the formal speeches made at the meeting and at the various events associated with it.

There were two main groups of papers. The first was concerned with battery research and development, and the purpose was probably to show to battery users the nature of battery research, the difficulties involved, and the progress that has been made. This group comprised eight papers on: the physical chemistry of electrochemical energy storage, conventional and sealed, maintenance free lead-acid batteries, open and gas tight nickel-cadmium batteries, progress in the development and acceptance of primary and secondary lithium systems, metal-hydrogen batteries, zinc-bromine and zinc-chlorine storage systems, high temperature batteries, and material questions with respect to lead-acid batteries and fuel cells. Not surprisingly, the longest paper was on the subject of lithium batteries.

The second group of papers consisted of five from battery users on their experiences with batteries, their methods of evaluating them, and their present and future requirements. The papers came from the West Berlin Electricity Supply Authority, The Federal Establishment for Air Traffic Control, the Federal Defence Department, the Railway Service, and the Post Office. Although the paper on batteries for the defence forces was of outstanding interest and, in places, slightly controversial, pride of place must probably go to the paper by the West Berlin Electricity Supply Undertaking on the battery installed in 1987 for frequency control, no-delay reserve, and peak load compensation. This battery, reputedly "the largest lead-acid battery in the world", consists of 12 parallel strings each of 590, 1000 A h cells.

The two papers which did not come within these groups dealt with the safety regulations for battery installations and with opto- and micro-electronics. The latter gave an insight into the developments in this field, some of their applications, and their power supply requirements.

The discussion at the end of the meeting was quite lengthy and lively, indicating that the attention and interest of the audience had been caught and held.

The book will be of interest to battery users, manufacturers, and suppliers, as well as to engineers working with emergency supply systems.

I found the book interesting and informative and I feel that the organisers are to be congratulated on having arranged a successful and useful meeting. These biennial meetings were founded by Dr Ing. Klaus Eberts who retired last year and their inclusion in the International Calendar of Meetings and the success of this meeting are fitting tributes to the hard work and enthusiasm which he has put into them.

On a purely personal note, I was very pleased to see that many old friends are still active in the battery field.

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