Experimental Electrochemistry

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Synopsis

The only comprehensive collection of easy-to-perform electrochemical experiments for both high school lessons and university lab courses. It illustrates the broad area of electrochemistry with respect to thematic aspects and apparatus used in the experiments. In addition, it highlights the interdisciplinary connections to related fields. Following a brief overview, the book goes on to deal with electrochemistry at equilibrium and with flowing current, while further chapters cover analytical electrochemistry, non-traditional methods, electrochemical energy storage and conversion as well as technical electrochemistry. Throughout, the author clearly describes every detail of the experiments and gives helpful guidance for the production of rare working materials. Complementing textbooks on electrochemistry, this is a must for lecturers as well as for students in chemistry.

Book Information

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Customer Reviews

It’s almost impossible to find a laboratory textbook in electrochemistry written after 1920, and since then so many things have changed you might need an emeritus chemist to translate it for you (that’s why I start by giving this book PLUS TWO STARS). Also, for general chemistry electrochemical experiments are pretty easy to find, but that’s not the case with other basic courses like organic, inorganic and physical chemistry. In the case of physical chemistry Shoemaker (Experiments in Physical Chemistry), Matthews (Experimental Physical Chemistry) and Athawale (Experimental Physical Chemistry) include some classical nice experiments, but they’re just not enough and most
of them emphasize the basic science aspects alone. In this book Holze manages to squeeze laboratory experiments for elementary, basic and intermediate (PLUS ONE STAR) electrochemistry, electroanalysis and electrosynthesis (PLUS TWO STARS) and in some of them also includes the applied science aspect of the experiment like corrosion and batteries (PLUS ONE STAR). You should really take a look at the table of contents. The MINUS ONE STAR comes from the book’s lack of equipment diagrams and detailed instructions. It’s more a guide for the instructors than a real laboratory textbook.

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