Preface

Testing occupies a significant component of any development program. Battery development programs are no exceptions; furthermore, the character of batteries often present unique testing problems and challenges. Battery test results are sometimes reported at various symposia; however, the underlying test methodologies, procedures, and techniques frequently go unmentioned because the focus of the symposia is technology rather than testing. In the meantime, testing practices have been developing more or less independently in various countries, and the diversity in testing makes a comparison of battery performance less than straightforward.

In June 1984, a meeting of representatives from several countries was held in Washington, D.C., to discuss international cooperation in advanced battery research and development. Because of the diversity of approaches in various countries and the minimum attention in international forums for battery testing, the representatives agreed on the desirability of a workshop to discuss testing methodologies. This workshop provides an opportunity for contributors in this area to discuss and exchange information. Aside from fostering international cooperation, such an exchange should lead to a commonality, or at least an understanding, of test practices, so that batteries developed in different countries can be discussed, compared, and evaluated on a more standard basis.

This workshop encompasses the testing of secondary advanced battery systems, such as, for example, advanced lead–acid, Ni/Fe, Ni/Zn, high temperature, metal–air, and zinc–halogen, for traction, wind, solar, and utility load-leveling applications.

These Extended Abstracts have been divided into eight sections as follows: Introductory Remarks; International Overview; General Testing Procedures; Testing of Special Battery Systems; Accelerated Life Cycle Tests; Instrumentation, Hardware, and Equipment; Post-Test Analyses and Thermal Management; Field Testing and Correlating Laboratory Tests with On-Board EV Tests.

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