
Foreword

The success of the 1st International Meeting on Lithium Batteries held at Rome in April, 1982, showed the need to provide a continuing outlet for international cooperation in this field of research. The *Laboratoire de Physique des Liquides et Electrochimie* — C.N.R.S., France was charged with organizing the succeeding Conference, which was attended at Paris by about 180 scientists and engineers from 23 countries.

Plenary lectures, contributed oral communications, and poster presentations from both academic and industrial scientists in many disciplines promoted a fruitful and thorough exchange of both basic and practical information in this important and rapidly developing field with all its commercial impact.

The meeting covered a broad range of topics related to the main theoretical, experimental, and applied aspects of primary and secondary lithium batteries. It was divided into the following successive sessions:

- Polymer electrolytes and electrodes
- Electrolytes and passivation
- Primary batteries; liquid cathodes
- Primary batteries; solid cathodes
- Secondary batteries.

The papers published in this special edition are presented in the same order.

During the three days of the meeting high performance primary batteries, including new or improved electrochemical systems, were presented, with their technical limitations, along with the continuing intensive research on secondary batteries which — in spite of significant and promising advances in various directions — have not yet reached the state of commercial exploitation.

A general discussion on the future of lithium batteries, introduced by invited speakers, which highlighted the current accomplishments in three geographical areas — U.S.A., Europe, Japan — provided the participants with a worthwhile overview of the needs and trends of lithium battery technology.

At the termination of the Conference there was general agreement that Japan should be asked to act as host for the next meeting (1986).

On behalf of the Scientific Committee I express its appreciation to all the speakers and participants for their contributions, and thank the sponsors of the meeting: *La Société de Chimie Physique; the Electrochemical Society (U.S.A.); l'Université Pierre et Marie Curie, Paris, and la Direction des Recherches et Etudes et Techniques; les Sociétés S.A.F.T. piles, C.E.A.C., C.G.E., (Laboratoires de Marcoussis), E.D.F. (Direction des Etudes et Recherches); the Department of Energy of the U.S., and the U.S. Office of Naval Research (ONRL, London Office)* for their support of its organization.

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