

초청강연5

Battery Related R&D in the U.S.

Ralph I. Brodd

Broddarp of Nevada, Inc. 2161 Fountain Springs Dr. Henderson, NV 89014

Selected topics of battery related R&D efforts will be reviewed. R&D activity is at a high level in the U.S. Selected new developments are the subject of papers in this meeting. Modeling of battery performance has developed into an important experimental tool. It is now possible to predict battery performance based on first principles. Considerable activity is devoted to improving the performance of the alkaline primary cell in response to competitive pressure between the three major producers. New developments in the zinc-air technology offer the promise for the next generation primary battery system. Rechargeable battery efforts are directed mainly at hydrogen storage alloys for Ni-MH and new cathode combinations for Li-ion polymer systems. A strong effort is directed to develop space qualified Li-ion cells. Some comments will be made on the double layer capacitors and battery power management activities.