

LEAD INDUSTRIES ASSOCIATION

60 EAST 42ND STREET
NEW YORK 17, N. Y.

June 5, 1957

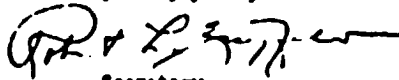
SUBJECT: ELEVENTH ANNUAL BATTERY
RESEARCH AND DEVELOPMENT CONFERENCE

To Members of the Lead Industries Association:

The Eleventh Annual Battery Research and Development Conference sponsored by the Power Sources Division, U. S. Army Signal Engineering Laboratories, Fort Monmouth, N. J., was concluded on May 23, 1957. The two-day session, held at the Berkeley-Carteret Hotel, Asbury Park, consisted of a research symposium, a primary battery symposium, a secondary and special purpose battery symposium, and a symposium on new energy sources. A list of the papers presented, their authors and affiliations is attached. Of particular interest was the paper presented by H. E. Jensen, C & D Batteries, Inc., titled "Calcium-Lead Grid Batteries." Past developments in this area and their present status were discussed.

The Signal Corps intends to publish the full proceedings of the Conference which are to be made available sometime in August. Copies at the reduced price of \$5.00 are available through the L.I.A. Single copies obtained directly are priced at \$10.00. It is suggested that members interested in obtaining the proceedings of the Conference write to the Lead Industries Association to that effect.

Very truly yours,


Secretary



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**ELEVENTH ANNUAL BATTERY
RESEARCH AND DEVELOPMENT CONFERENCE**

PROGRAM

Eleventh Annual Battery Research and Development Conference

May 22, 1957

SOLID ELECTROLYTE BATTERIES	U. S. Army Signal Engineering Laboratories Mr. S. J. Shapiro
ION-EXCHANGE BATTERIES	General Electric Co. Dr. W. T. Grubb
ORGANIC DEPOLARIZERS	Radio Corporation of America Dr. T. S. Lozier
BORON TRIFLUORIDE BATTERIES	National Carbon Co. Dr. C. E. Evans
AMMONIA VAPOR ACTIVATED BATTERIES	Eastman Kodak Co. Mr. H. Gleason
NON-AQUEOUS SOLVENT ELECTROCHEMICAL SYSTEMS	University of Missouri Dr. J. M. Arcand
NEW APPROACHES TO IMPROVEMENTS IN LOW TEMPERATURE DRY BATTERIES	U. S. Army Signal Engineering Laboratories Mr. J. J. Murphy
APPLICATION OF HEATING PRINCIPLES TO LECLANCHE BATTERIES	Clia Mathieson Chemical Corp. Mr. R. C. Evans
APPLICATION OF HEATING PRINCIPLES TO ALKALINE DRY BATTERIES	Mallory Battery Co. Mr. M. Firshein
INVESTIGATION OF SHELF LIFE OF DRY BATTERIES	Naval Ordnance Laboratory Dr. A. G. Hollfritsch
IMPROVEMENT IN STORAGE RELIABILITY OF DRY CELLS	Mallory Battery Co. Dr. E. S. Willson
MANAGEMENT OF DRY BATTERIES IN MILITARY CHANNELS	U. S. Army Signal Logistics Evaluation Group Col. J. M. Mahas
A PROGRAM FOR DETERMINING RELIABILITY OF MISSILE BATTERIES	U. S. Army Signal Engineering Laboratories Mr. H. M. Wilkinson
DEVELOPMENT AND RELIABILITY INVESTIGATIONS OF ZINC-SILVER OXIDE MISSILE BATTERIES	U. S. Army Signal Engineering Laboratories Mr. M. T. Wilburn
SEPARATOR MATERIAL FOR SPECIAL PURPOSE BATTERIES	Polytechnic Institute of Brooklyn Dr. P. F. Bruins
CHARACTERISTICS OF ZINC-SILVER OXIDE MOLTEN ELECTROLYTE CELL SYSTEMS	Eagle-Picher Co. Dr. D. J. Doan

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CHLORINE DEPOLARIZED BATTERIES

Aerojet-General Corp.
Mr. H. E. Lawson

WATER-ACTIVATED BATTERIES

Eagle-Picher Co.
Mr. E. M. Morse

May 23, 1957

TRENDS IN MINIATURIZATION OF COMMUNICATION BATTERIES

U. S. Army Signal Engineering Laboratories
Mr. J. M. Hovenden

WATER TYPE LECLANCHE CELLS

United States Electric Mfg. Corp.
Mr. M. Lang

IMPROVED LECLANCHE PLAT CELLS

Olin Mathieson Chemical Corp.
Mr. R. I. Cowles

BATTERY PACK VS. LOW VOLTAGE TRANSISTOR CONVERTER

U. S. Army Signal Engineering Laboratories
Mr. T. L. Dudley

NEW BATTERY SEPARATOR MATERIALS

Polytechnic Institute of Brooklyn
Dr. P. F. BruinsEFFECT OF ATMOSPHERIC STORAGE ON MnO_2 U. S. Army Signal Engineering Laboratories
Mr. S. J. BartoshREPORT OF BATTERY-GRADE MnO_2 COMMITTEENational Carbon Co.
Mr. R. Klopfenstein

CALCIUM-LEAD TRUD BATTERIES

C. & D Batteries, Inc.
Mr. H. E. Jensen

CADMIUM-SILVER OXIDE BATTERIES

Yardney Electric Corp.
Mr. P. L. Howard

CONDUCTIVE PLASTICS FOR BATTERIES

Markite Co.
Mr. S. A. CorrenVENTED $Mn-Cd$ BATTERIESNickel-Cadmium Battery Corp.
Dr. A. FleischerSEALED SINTERED PLATE $Mn-Cd$ BatteriesSonotone Corporation
Mr. L. Belove

SEALED CELLS WITH SOLAR CONVERTERS

U. S. Army Signal Engineering Laboratories
Mr. R. Luns

SOLAR ENERGY AND ENERGY STORAGE DEVICES

The University of Wisconsin
Dr. Farrington Daniels

NEW SOLAR CONVERTER MATERIALS

Radio Corporation of America
Mr. P. Rappaport

APPLICATION OF SOLAR ENERGY

U. S. Army Signal Engineering Laboratories
Mr. G. Hunrath

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THE ELIOT-KIDDE NUCLEAR BATTERY

Walter Kidde Nuclear Laboratories, Inc.
Mr. P. Miller

CONSTANT CURRENT CHARGING TYPE NUCLEAR
BATTERIES

Radiation Research Corp.
Mr. J. Coleman

THERMOELECTRIC TYPE NUCLEAR BATTERIES

Mound Laboratories
Mr. B. C. Blanks