
Alkaline Electrochemical Power Sources

Editors:

C. Wang

University of Maryland
College Park, Maryland, USA

R. Mantz

Army Research Office
Durham, North Carolina, USA

J. Xu

Rutgers, The State University of New Jersey
New Brunswick, New Jersey, USA

Sponsoring Divisions:



Battery



Energy Technology



Published by
The Electrochemical Society

65 South Main Street, Building D
Pennington, NJ 08534-2839, USA

tel 609 737 1902

fax 609 737 2743

www.electrochem.org

ecstransactions™

Vol. 13 No. 23

Copyright 2008 by The Electrochemical Society.
All rights reserved.

This book has been registered with Copyright Clearance Center.
For further information, please contact the Copyright Clearance Center,
Salem, Massachusetts.

Published by:

The Electrochemical Society
65 South Main Street
Pennington, New Jersey 08534-2839, USA

Telephone 609.737.1902
Fax 609.737.2743
e-mail: ecs@electrochem.org
Web: www.electrochem.org

ISSN 1938-6737 (online)
ISSN 1938-5862 (print)

ISBN 978-1-56677-681-3 (PDF)
ISBN 978-1-60768-032-1 (Softcover)

Printed in the United States of America.

Table of Contents

<i>Preface</i>	<i>iii</i>
Synthesis and Characterization of Nanosized Calcium Zincate Powder and its Application to the Zn Electrodes <i>C. Yang and P. Chen</i>	1
Preparation and Characterization of the PVA/TiO ₂ Composite Polymer Membrane and its Application on Alkaline DMFC <i>C. Yang and C. Lin</i>	21
The Influence of Platinum Surface Morphology on the Electrooxidation of Methanol in Alkaline Solutions <i>J. R. Hayes, D. Zeller and C. Friesen</i>	41
Controlled Synthesis of Silver Particles Supported on Carbon Nanocapsules as Electrocatalysts for Oxygen Reduction Reaction in Alkaline Electrolyte <i>Y. Chang, P. Wu, Y. Lin, P. Lin, Y. Chang and R. Liang</i>	55
A Dusty Fluid Model to Predict Hydroxyl Ion Conductivity in Alkaline Anion Exchange Membranes <i>K. N. Grew and W. Chiu</i>	61
Author Index	73