
Separators and Membranes for Batteries, Capacitors, Fuel Cells, and Other Electrochemical Systems

Editor:

J. Weidner

University of South Carolina
Columbia, South Carolina, USA

Sponsoring Division:



Industrial Electrochemistry and Electrochemical Engineering



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. 19 No. 30

Copyright 2009 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)

Printed in the United States of America.

ECS Transactions, Volume 19, Issue 30

Separators and Membranes for Batteries, Capacitors, Fuel Cells, and Other Electrochemical Systems

Table of Contents

<i>Preface</i>	<i>iii</i>
Preparation and Characterization of Mediator Doped PEO/LiAlO ₂ /SiO ₂ Solid Polymer Electrolyte <i>Y. Yin, J. Zhou and X. Zhou</i>	1
Development and Study of Mediator-Enhanced Polymer Electrolyte Supercapacitors <i>X. Zhou, J. Zhou, Y. Yin and A. Mansour</i>	9
Comparison of Electrospun and Commercially Available Separator Materials for Supercapacitors <i>A. Jänes, K. Tõnurist, T. Thomberg and E. Lust</i>	23
Novel Composite Proton Exchange Membranes for Fuel Cells <i>A. Fuchs, J. Sutrisno, A. Adibhatla, B. Wallis, C. Handerson, C. Evrensel and F. Gordaninejad</i>	33
Development of Electrolyte Membranes for Fuel Cells Operating at Intermediate Temperatures (130-200°C) <i>N. Ashino, A. Martins Camargo, D. L. Morgado, E. Frollini and E. Gonzalez</i>	51
Fabrication and Characterization of Heteropolyacid Immobilized Membranes <i>S. Sachdeva, N. Sharma, M. M. Emery, S. Hamrock and A. Herring</i>	63
Novel Ternary System Based Proton Conducting Polymer Electrolytes Based on Fluorinated Copolymer <i>M. Singh, S. Suraj and H. Missan</i>	71
Poly(phenylene)-Based Anion Exchange Membranes for Alkaline Fuel Cells <i>M. Hibbs, C. Fujimoto and C. Cornelius</i>	89
Author Index	99