
Advances in Low Temperature Electrolyzer and Fuel Cell Technology: In Honor of Anthony B. (Tony) LaConti

Editors:

J. Staser

Ohio University
Athens, Ohio, USA

V. Ramani

Illinois Institute of Technology
Chicago, Illinois, USA

B. Pivovar

National Renewable Energy Laboratory
Golden, Colorado, USA

C. Mittelsteadt

Giner, Inc. /GES
Auburndale, Massachusetts, USA

P. Pintauro

Vanderbilt University
Nashville, Tennessee, USA

Sponsoring Divisions:



Industrial Electrochemistry and Electrochemical Engineering



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. 53, No. 12

Copyright 2013 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)
ISSN 2151-2051 (cd-rom)

ISBN 978-1-62332-109-3 (Softcover)
ISBN 978-1-60768-464-0 (PDF)

Printed in the United States of America.

ECS Transactions, Volume 53, Issue 12
Advances in Low Temperature Electrolyzer and Fuel Cell Technology:
In Honor of Anthony B. (Tony) LaConti

Table of Contents

<i>Preface</i>	<i>iii</i>
Zirconium Oxide-based Cathode Prepared by Partial Oxidation of Carbonitrides as Non-precious Metal Cathode for Polymer Electrolyte Fuel Cells <i>K. I. Ota, Y. Ohgi, K. Matsuzawa, S. Mitsushima, A. Ishihara</i>	1
The Influence of Fuel-to-Air Ratio on Water Balance in a Polymer-Electrolyte Fuel Cell with Counter-Current Reactant Flow <i>R. M. Darling</i>	9
Development of Durable Electrocatalysts for PEFC through Graphitization of Carbon Support Surface <i>X. Zhao, A. Hayashi, Z. Noda, K. Sasaki</i>	23
Preparation and Characterization of Non-Precious Metal Fuel Cell Catalysts via Chemical Modification of Carbon Surfaces <i>S. G. Mavilla, B. J. MacLean, E. B. Easton</i>	31
Author Index	43