
Clean Water Technologies

Editors:

Z. P. Aguilar

Ocean Nano Tech, LLC
Springdale, Arkansas, USA

J. Weidner

University of South Carolina
Columbia, South Carolina, USA

M. Inman

Faraday Technology Inc.
Clayton, Ohio, USA

P. M. Natishan

Naval Research Laboratory
Washington, D.C., USA

B. Stoner

Research Triangle Institute, Inc.
Durham, North Carolina, USA

E. J. Taylor

Faraday Technology Inc.
Clayton, Ohio, USA

Sponsoring Divisions:



Sensor



Corrosion



Industrial Electrochemistry and Electrochemical Engineering



New Technology Subcommittee



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. 45, No. 17

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 978-1-62332-033-1 (PDF)
ISBN 978-1-60768-385-8 (Softcover)

Printed in the United States of America.

ECS Transactions, Volume 45, Issue 17

Clean Water Technologies

Table of Contents

<i>Preface</i>	iii
----------------	-----

Chapter 1
Water Treatment and Sanitation

ElectroConcentration and ElectroFlotation for Dewatering/Water Purification <i>M. E. Inman, E. J. Taylor, H. McCrabb, B. Skinn, J. Kell, B. Stuart</i>	3
Optical and Fluidic Co-Design of a UV-LED Water Disinfection Chamber <i>T. R. Harris, J. G. Pagan, P. Batoni</i>	11
Electrochemical Oxidation of Organic Compounds using Boron-Doped Diamond Electrodes <i>P. M. Natishan, W. E. O'Grady, F. J. Martin, P. L. Hagans, H. Martin, B. R. Stoner</i>	19

Chapter 2
Water Treatment Technologies

Power Plant Wastewater Cleanup through Capacitive Deionization <i>J. Landon, J. K. Neathery, K. Liu</i>	33
Water Desalination by Capacitive Deionization - Advantages Limitations and Modification <i>I. Cohen, E. Avraham, A. Soffer, D. Aurbach</i>	43
Author Index	61