

The Electrochemical Society

# Multi-Scale Simulations of Electrochemical Systems

at the 211<sup>th</sup> ECS Meeting

ECS Transactions Volume 6 No.10

May 6-10, 2007  
Chicago, Illinois, USA

Printed from e-media with permission by:

Curran Associates, Inc.  
57 Morehouse Lane  
Red Hook, NY 12571  
[www.proceedings.com](http://www.proceedings.com)

ISBN: 978-1-60423-886-0

Some format issues inherent in the e-media version may also appear in this print version.

---

Copyright 2007 by The Electrochemical Society, Inc.  
All rights reserved.

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

Published by:

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

Telephone 609.737.1902  
Fax 609.737.2743  
e-mail: [ecs@electrochem.org](mailto:ecs@electrochem.org)  
Web: [www.electrochem.org](http://www.electrochem.org)

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

Printed in the United States of America.

---

*ECS Transactions, Volume 6, Issue 10*  
Multi-Scale Simulations of Electrochemical Systems

**Table of Contents**

Preface

Transient Multi-Scale Modelling of Ageing Mechanisms in a Polymer Electrolyte Fuel Cell: An Irreversible Thermodynamics Approach 1  
*A. A. Franco*

Author Index 25