
Surface Treatment for Biomedical Applications 2

Editors:**S. Djokic**

Elchem Consulting, Ltd.
Edmonton, Alberta, Canada

D. C. Hansen

University of Dayton
Dayton, Ohio, USA

S. Virtanen

University of Erlangen-Nuremberg
Erlangen, Germany

Sponsoring Divisions:**Electrodeposition****Corrosion****Sensor**

Published by

The Electrochemical Society65 South Main Street, Building D
Pennington, NJ 08534-2839, USA

tel 609 737 1902

fax 609 737 2743

www.electrochem.org**ecs transactions**™**Vol. 25 No. 19**

Copyright 2010 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 978-1-56677-786-5 (PDF)
ISBN 978-1-60768-136-6 (Softcover)

Printed in the United States of America.

ECS Transactions, Volume 25, Issue 19
Surface Treatment for Biomedical Applications 2

Table of Contents

Preface	iii
Challenges in Correlating In Vitro Corrosion Data to In Vivo Performance for Implantable Electrode Materials <i>G. Martinez</i>	1
Antimicrobial Activity of Electrochemically Oxidized Silver and Copper <i>S. Djokić</i>	7
Carbon Containing Titanium Coating for Ti6Al4V Implants <i>U. Ruiz de Gopegui, R. Bayón, C. Zubizarreta, V. Sáenz de Viteri and X. Fernández</i>	17
Electrochemical Properties and Biological Activity of Carbon Materials Modified by Polypyrrole <i>M. Khubutiya, M. Goldin, A. Stepanov, P. Hall, V. Kolesnikov and A. Volkov</i>	33
Electrochemical Etching of NiTi Alloy in a Neutral Fluoride Solution <i>S. Cattarin, P. Guerriero, M. Musiani, A. Tuissi and L. Vázquez-Gómez</i>	43
Ionic Liquid Electropolishing of Metal Alloys for Biomedical Applications <i>T. M. Abdel-Fattah, J. Loftis and A. Mahapatro</i>	57
Redox Potentials of Blood Serum in Patients with Acute Cerebral Pathology <i>M. Khubutiya, M. Goldin, M. Romasenko, A. Volkov, P. Hall, A. Evseev, O. Levina, E. Aleschenko and V. Krylov</i>	63
Author Index	73