

# Conducting Polymers

György Inzelt

# Conducting Polymers

A New Era in Electrochemistry

 Springer

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ISBN 978-3-540-75929-4

e-ISBN 978-3-540-75930-0

DOI 10.1007/978-3-540-75930-0

Library of Congress Control Number: 2007941167

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*Typesetting and Production:* le-tex publishing services oHG, Leipzig, Germany  
*Cover design:* WMXDesign, Heidelberg

Printed on acid-free paper

9 8 7 6 5 4 3 2 1

springer.com

*Elements consisted at first of certain small and primary Coalitions of minute Particles of matter into Corpuscles very numerous and very like each other. It will not be absurd to conceive, that such primary Clusters may be of far more sorts than three or five; and consequently, that we need not suppose, that each of the compound Bodies we are treating of, there should be found just three sorts of such primitive Coalitions.*

*—Robert Boyle: The Sceptical Chymist, Oxford, 1680.*

# Preface

Conducting polymers have permeated many fields of electrochemical research. Like metals and alloys, inorganic semiconductors, molecular and electrolyte solutions, and inorganic electroactive solids, they comprise a group of compounds and materials with very specific properties; indeed, there is now a research field focusing on the electrochemistry of conducting polymers. Conducting polymers possess similarities from an electrochemical point of view to all of the other compounds and materials mentioned above, making them a highly fascinating research topic. Furthermore, such research has led to numerous new applications, ranging from corrosion protection to analysis. There are a huge number of electrochemical papers on conducting polymers, and a good number of books on this topic too. However, the editor of the present series of *Monographs in Electrochemistry* noted that there was no modern monograph on the market in which the electrochemistry of conducting polymers is treated with the appropriate balance of completeness and selectivity. Such a monograph should be written by an active electrochemist who is experienced in the field of conducting polymers, and who possesses a solid knowledge of the theoretical foundations of electrochemistry. Therefore, I am very happy that György Inzelt from the Eötvös Loránd University in Budapest, Hungary, agreed to write this monograph. I hope that graduate students in electrochemistry, the chemistry and physics of materials, industrial chemists, and researchers at universities and industry alike will find this monograph enjoyable and stimulating, as well as helpful for their work.

March 2008

Fritz Scholz  
Editor of the series *Monographs in Electrochemistry*

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