

Table of Contents

Preface

Introduction to the Physics of Conducting Polymers

S. Roth 1

Introduction to the Chemistry of Conducting Polymers

A. Pron 13

Electrochemical Preparation of Electroconductive Polymers

G. Bidan 21

Electrochemistry of Polyacetylene

J. Przyluski and M. Zagorska 31

Electronical Voltage Spectroscopy

S.J. Porter 43

Photoelectrochemistry with Electronic and Ionic Conductive Polymers

O. Inganäs 61

IR Spectroscopy of the Low-Dimensional Organic Crystals and Polymers

A. Graja 69

In Situ Optical Spectroscopy of Conducting Polymers

H. Kuzmany 95

Endor Spectroscopy of Polyacetylenes

J.B. Raynor 111

Moessbauer Spectroscopy Studies of Conductive Polymers

J. Suwalski, A. Pron and Z. Kucharski 125

Cyclic Voltammetry, Impedance Measurements and In-Situ EPR Studies of Conjugated Polymers

L. Wuckel, M. Schwarzenberg, A. Bartl and H.G. Döge 139

Crystalline Reticulate Doping of Polymers

M. Kryszewski and J. Ulanski 163

Ionic Conductive Polymers

J. Plochanski 173

Electron Transfer in an Electrode-Biopolymer-Electrolyte System

M.R. Tarasevich 179

Polymer Solar Cells

T.S. Zhuravleva and A.V. Vannikov 203