Extended Linear Chain Compounds

Volume 1

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Edited by

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Occidental Research Corporation
Irvine, California

PLENUM PRESS • NEW YORK AND LONDON

Library of Congress Cataloging in Publication Data

Main entry under title:

Extended linear chain compounds.

Includes bibliographical references and index. 1. Polymers and polymerization. I. Miller, Joel S.

QD381.E96 547.7 81-17762

ISBN-13: 978-1-4613-3251-0 e-ISBN-13: 978-1-4613-3249-7

DOI: 10.1007/978-1-4613-3249-7 AACR2

Softcover reprint of the hardcover 1st edition 1982

A Division of Plenum Publishing Corporation

233 Spring Street, New York, N.Y. 10013

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Preface

Linear chain substances span a large cross section of contemporary chemistry ranging from covalent polymers, to organic charge transfer complexes to nonstoichiometric transition metal coordination complexes. Their commonality, which coalesced intense interest in the theoretical and experimental solid state physics/chemistry communities, was based on the observation that these inorganic and organic polymeric substrates exhibit striking metal-like electrical and optical properties. Exploitation and extension of these systems has led to the systematic study of both the chemistry and physics of highly and poorly conducting linear chain substances. To gain a salient understanding of these complex materials rich in anomalous anisotropic electrical, optical, magnetic, and mechanical properties, the convergence of diverse skills and talents was required. The constructive blending of traditionally segregated disciplines such as synthetic and physical organic, inorganic, and polymer chemistry, crystallography, and theoretical and experimental solid state physics has led to the timely development of a truly interdisciplinary science. This is evidenced in the contributions of this monograph series. Within the theme of *Extended Linear Chain Compounds*, experts in important, but varied, facets of the discipline have reflected upon the progress that has been made and have cogently summarized their field of specialty. Consequently, up-to-date reviews of numerous and varied aspects of "extended linear chain compounds" have developed. Within these volumes, numerous incisive contributions covering all aspects of the diverse linear chain substances have been summarized.

I am confident that assimilation of the state-of-the-art and clairvoyance will be rewarded with extraordinary developments in the near future. Clearly, commercially viable applications of this class of materials is imminent and we look forward to them.

I wish to thank all of the contributors and their families for relinquishing the time necessary to consummate this endeavor.

Irvine, California Joel S. Miller

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