

Handbook of Porphyrin Science

with Applications to Chemistry, Physics,
Material Science, Engineering, Biology
and Medicine



Volume 2

Synthesis and Coordination Chemistry

Karl M. Kadish • Kevin M. Smith • Roger Guilford
Editors

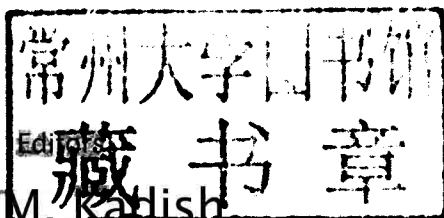
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**with Applications to Chemistry, Physics, Materials Science, Engineering, Biology and Medicine
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- Vol. 1 Supramolecular Chemistry
- Vol. 2 Synthesis and Coordination Chemistry
- Vol. 3 Synthetic Methodology
- Vol. 4 Phototherapy, Radioimmunotherapy and Imaging
- Vol. 5 Heme Proteins

Preface

Although the porphyrin and tetrapyrrole research area was regarded as “fully matured” during the 20th century, as evidenced for example by the awarding of numerous Nobel Prizes to its principal researchers, new advances and accomplishments in the field still amaze us as editors. The area continues to blossom and to expand into new areas of science and applications that would probably never have occurred to our 20th century heroes. An earlier *Porphyrim Handbook* assembled the large amount of factual data that had been accumulated during the 20th century. Our new venture, the *Handbook of Porphyrim Science* takes a completely new look at our research area and comprehensively details the contemporary science now appearing in the scientific literature that would indeed have been hard to predict even 10 years ago. In particular, fundamentally new methodologies and potential commercial applications of the beautiful compounds that we all love are exemplified, fully recognizing the subtitle of the series — “with applications to chemistry, physics, materials science, engineering, biology and medicine”.

The three of us have complementary expertise in physical chemistry, synthetic and bioorganic chemistry, and in synthetic and mechanistic organometallic chemistry; this has enabled us to cover the whole field of porphyrin science and applications, and to devise comprehensive volume and author content. As of the date of writing, between the three of us, we have published more than 1600 tetrapyrrole research articles, and hold 31 patents related to commercial applications of porphyrin science. So we do know our field, and this has enabled us to assemble a first-rate group of experts who have written comprehensive up-to-date chapters with accuracy and authority; we thank our authors for their cooperation and willingness to go along with our highly ambitious schedule for production of these volumes.

We look forward to comments from our readers, and to suggestions that might enable us to expand our basic interests and scientific coverage even further. Meanwhile, we hope that porphyrin researchers, old, new and of the future, will enjoy reading these volumes just as much as we enjoyed planning and, with the help of World Scientific Publishing Company, producing them from manuscript to published article, in a timely manner.

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January, 2010

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