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74 / Carbaporphyrins and Related Systems. Synthesis, Characterization, Reactivity and Insights into Porphyrinoid Aromaticity **1**

Timothy D. Lash

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89 / Diversity of Heme Proteins in Sulfate Reducing Bacteria

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Protein Superfamily

Jennifer L. DuBois and Jeffery A. Mayfield

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Preface for Volumes 16–20

It is now more than two years and 15 volumes since we wrote our first Preface for the “Handbook of Porphyrin Science”. We are delighted with the initial 15 volumes, with the diligence, timeliness, breadth of expertise, writing talent, and resolute dedication of our authors, and with the exceptional quality of the production provided by World Scientific Publishing Company. Given these successes, it was with enthusiasm that we took on the recruitment of new authors for volumes 16–20; indeed, we are extremely gratified with the responses we continue to receive to our invitations, with virtually all invitees from all over the world accepting our requests for authoritative contributions.

We are continuing with another five-volume set (Volumes 16–20) of the Handbook, with at least another five, probably ten, volumes to follow. Once again our contributors have far exceeded our expectations with regard to both quality of writing and comprehensive achievement of their individual tasks. We again asked our contributors to write “a review for the ages”, and we anticipate that, as with the past 15 volumes, what you now see will remain relevant for at least 15 years. After that, maybe we will have to start all over again with a continuing compendium of the very latest and most enduring “Porphyrin Science”.

The three editors once again wish to thank many individuals — our authors, our copy editors, our production team — and also World Scientific Publishing Company, for continuing to believe, with us, in the fundamental importance of porphyrins, related tetrapyrroles, and of their wide applications. We hope our readers will enjoy browsing these pages as much as we, the editors, enjoyed organizing the process that produced them.

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February 7, 2012

Preface for Volumes 1–10

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 *Porphyrin Handbook* assembled the large amount of factual data that had been accumulated during the 20th century. Our new venture, the *Handbook of Porphyrin 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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