

From the Guest Editors

Bioinorganic Chemistry, an interdisciplinary subject of Inorganic Chemistry and Biology, has gained momentum owing to the recent developments in both chemistry and biology, and hence is being re-defined continuously. The re-definition is evident even from its evolutionary nomenclatures, viz., Inorganic Biochemistry to Bioinorganic Chemistry to Biological Inorganic Chemistry, which were tailor-made to suit the research scenario during the evolutionary period. This has resulted in the reduction of the lines of separation of bioinorganic chemistry from that of biophysical and bioorganic chemistry. The discipline of bioinorganic chemistry has thus been acting as a continuous source of challenges to chemical-biologists and biological-chemists and hence needs to be reviewed and updated regularly. This has been done by a number of ways; by symposia/conferences or workshops or as a dedicated issue in a journal or a combination of two or more of these. This process needs to be practiced at frequent intervals to keep pace with the rapid changes taking place in this interdisciplinary area of research. We, in India, have been avidly following the developments in order to keep abreast with the contemporary interest in bioinorganic chemistry research.

The International Year of Chemistry 2011 is being celebrated worldwide to mark the achievements of chemistry and its contributions to the well being of mankind. This special issue of the Indian Journal of Chemistry Section A, on Bioinorganic Chemistry, brought out in the International Year of Chemistry, bears special significance in recognising this as a frontier of research in the 21st century. The present issue comprises invited original contributions as well as critical reviews on various topics of bioinorganic chemistry from all over the world. In tune with the norms of reputed research journals, all the articles are peer-reviewed. The topics covered in this special issue represent some, though not exhaustive, major directions of research in this rapidly developing field. Of the 25 articles published in this issue, five are thematic-reviews. These reviews cover diverse aspects spanning across bioinorganic chemistry, including the biogenesis of cytochrome c oxidase, xanthine oxidase, metal-phenolates, and, CO and O₂ binding and activation, etc. The remaining are original research papers.

We wish to dedicate this special issue to Prof. Samaresh Mitra on his 70th birthday, who has been instrumental in showcasing the research of bioinorganic chemistry in India.

We are thankful to the contributors and the reviewers of all the articles for their cooperation in bringing out this thematic issue. Our special thanks are due to Ms. Geeta Mahadevan, Editor, IJCA, and her team for efficient and speedy handling of the accepted manuscripts.

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