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book reviews

Works intended for this column should be sent direct to the Book-Review Editor, whose address appears in this issue. All reviews are also available from **Crystallography Journals Online**, supplemented where possible with direct links to the publisher's information.

Problems in Structural Inorganic Chemistry. By Wai-Kee Li, Yu-San Cheung, Kendrew Kin Wah Mak and Thomas Chung Wai Mak. Pp. 320. Oxford University Press, 2012. Price (Paperback) US\$ 59.99. ISBN 978 01996 58503

The book is intended as a problem text for students in inorganic chemistry at the senior undergraduate and

beginning graduate level. It is a compilation of 300 problems that had been designed by the authors for teaching inorganic chemistry courses, either as take-home assignments or examination questions. Notwithstanding the focus on structural aspects of inorganic chemistry indicated in the title the scope is much broader. The topics covered comprise Atomic and Molecular Electronic States, Atomic Orbitals, Hybrid Orbitals, Molecular Symmetry, Molecular Geometry and Bonding, Crystal Field Theory, Molecular Orbital Theory, Vibrational Spectroscopy, and Crystal Structure. Yet the central theme running through these topics is symmetry, molecular or crystalline. Helpful appendices, a bibliography with 150 citations, and a subject index complete the text.

The origins of the book go back to the early 80s when the first version of this compilation, entitled *Problems in Inorganic*

and Structural Chemistry, was published by T. C. W. Mak, K. Y. Hui, O. W. Lan and W.-K. Li. During decades of practical use it has been revised and updated. The renowned senior authors Thomas Chung Wai Mak and Wai-Kee Li are now Emeritus Professors of Chemistry. In this sequel book their great expertise in inorganic and physical chemistry is complemented by Yu-San Cheung and Kendrew Kin Wah Mak who are teaching physical and organic chemistry at the Chinese University of Hong Kong. Indeed, the optimization by generations of students and the extension to further aspects of chemistry resulted in a wide range of clearly formulated, challenging problems along with their solutions and helpful explanations. This mature workbook allows students to profoundly test their knowledge in several essential fields of chemistry.

The outstanding quality of the content, the high quality printing and the affordable paperback edition make *Problems in Structural Inorganic Chemistry* highly attractive for students and instructors especially in inorganic and physical chemistry.

Michael Ruck

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