DESCRIPTION

Divided into five major parts, the two volumes of this ready reference cover the tailoring of theoretical methods for biochemical computations, as well as the many kinds of biomolecules, reaction and transition state elucidation, conformational flexibility determination, and drug design. Throughout, the chapters gradually build up from introductory level to comprehensive reviews of the latest research, and include all important compound classes, such as DNA, RNA, enzymes, vitamins, and heterocyclic compounds.

The result is in-depth and vital knowledge for both readers already working in the field as well as those entering it. Includes contributions by Prof. Ada Yonath (Nobel Prize in Chemistry 2009) and Prof. Jerome Karle (Nobel Prize in Chemistry 1985).

ABOUT THE AUTHOR

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Professor Matta has published more than 50 research papers and book chapters, and edited the Quantum Theory of Atoms in Molecules: From Solid State to DNA and Drug Design (Wiley-VCH, 2007) with Russell J. Boyd. He is the recipient of the Molecular Graphics and Molecular Simulation Society Silver Jubilee Prize for 2009 and won the John C. Polanyi Prize in Chemistry in 2004. His research is in theoretical and computational chemistry with a focus on the analysis of molecular electron densities and its applications.

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