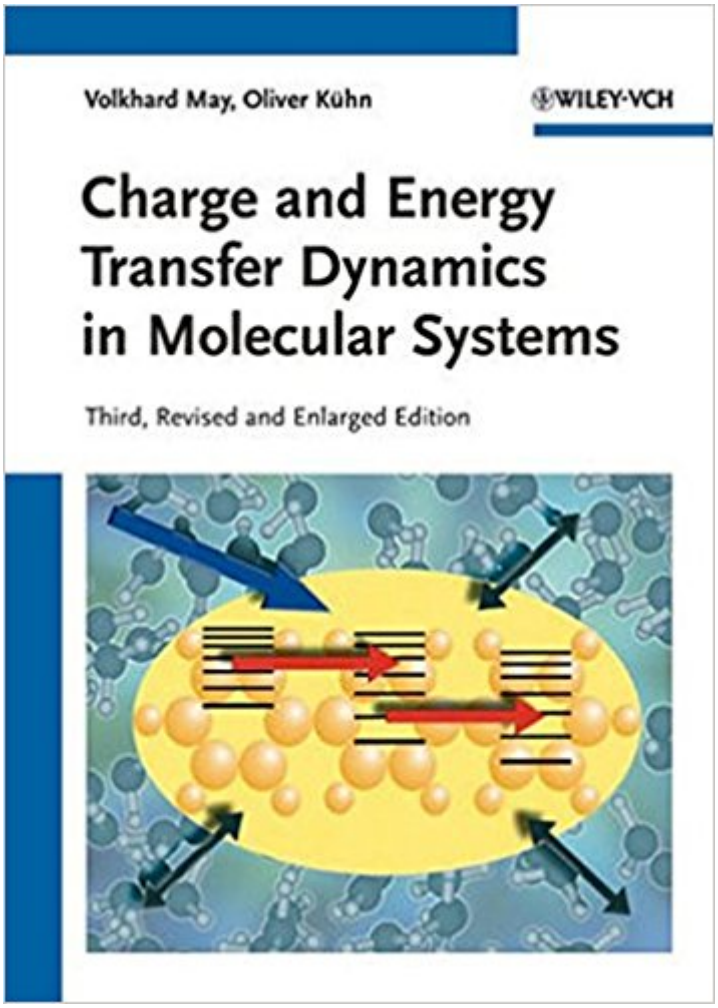
Charge And Energy Transfer Dynamics In Molecular Systems



Synopsis

This 3rd edition has been expanded and updated to account for recent developments, while new illustrative examples as well as an enlarged reference list have also been added. It naturally retains the successful concept of its predecessors in presenting a unified perspective on molecular charge and energy transfer processes, thus bridging the regimes of coherent and dissipative dynamics, and establishing a connection between classic rate theories and modern treatments of ultrafast phenomena. Among the new topics are: - Time-dependent density functional theory - Heterogeneous electron transfer, e.g. between molecules and metal or semiconductor surfaces - Current flows through a single molecule. While serving as an introduction for graduate students and researchers, this is equally must-have reading for theoreticians and experimentalists, as well as an aid to interpreting experimental data and accessing the original literature.

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Customer Reviews

"A few months after the first edition of May and Kuehn’s book was released, I met a Danish colleague at a conference in Montreux (on Lake Geneva). He had spent the weekend reading the book in his hotel room, despite the beautiful weather and nice sightseeing! This anecdote illustrates the sucess met by the first edition, and if you liked it, then you will like the second edition even more! ... the book provides a didactic and pedagogic presentation of molecular processes." Prof. Majed Chergui, Laboratory of Ultrafast Spectroscopy, Ecole Polytechnique FÃ Â¿Â dÃ Â¿Â rale de Lausanne, ChemPhysChem, 4/2005

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There’s a lot of math, which is good because there are so many equations used in the literature. A must-have for anyone who wants to do some theoretical work on electron and/or energy transfer.

This book by Mr May and Mr KÃ hn gives thorough insight into the interactions of excited molecular systems.If you are not afraid of quantum mechanics and like to know the theoretical connections and differences of effects like FÃ¶rster Resonance Energy Transfer, Photo induced Electron Transfer, Dexter mechanisms, and J- and H-dimerization. This is the right book for you.It might be better to be at least a masters student or a scientist interested in the field.

It is a clear and thorough book on this very topic and people work in this field cite the book frequently. A must-have for scientists who work in related areas.

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