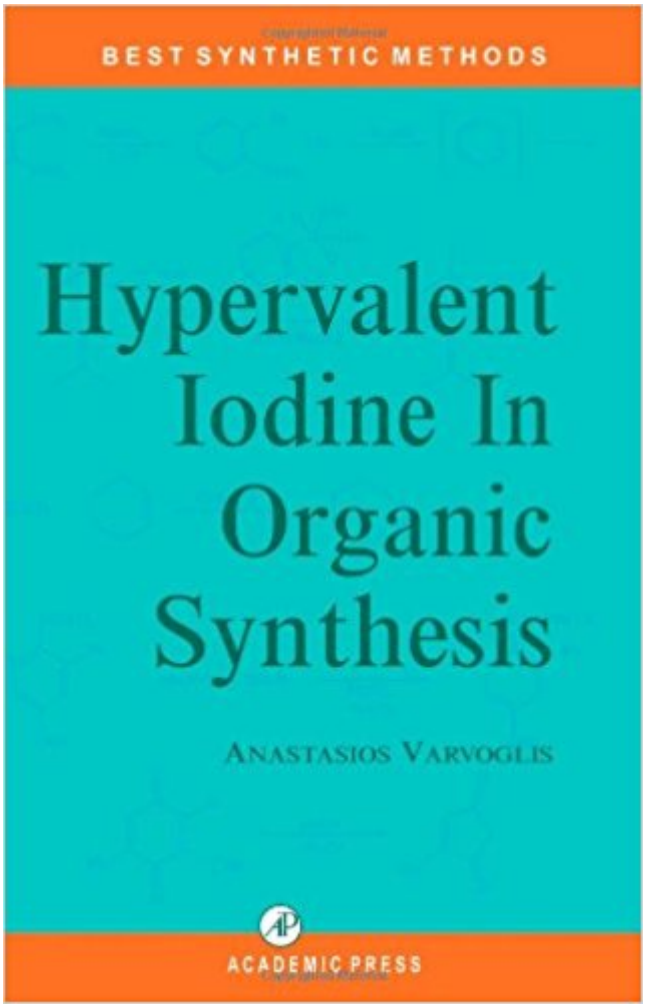
Hypervalent Iodine In Organic Synthesis (Best Synthetic Methods)



Synopsis

This book describes the fascinating chemistry of the many kinds of organic compounds of hypervalent iodine. Each chapter deals with a particular iodine compound or families of compounds which have been used as reagents in a plethora of useful transformations. These include assorted oxidation, such as with the precious Dess-Martin reagent as well as with a wide range of further reactions. Prominent features of hypervalent iodine reagents derived from iodobenzene are: ready availability, operational simplicity, mild reaction conditions, and high efficiency. They are environmentally safe and can be recycled. New species may be easily prepared by introducing substituents in the benzene ring or changing the ligand attached to iodine. Their combination with other reagents broadens considerably their synthetic potential. Today, no synthetic chemist can afford to ignore the valuable hypervalentiodine reagents.Features up-to-date coverage of a wide range of topicsIncludes many tables featuring a diversity of reactivity, and a comprehensive indexActs as a comprehensive, up-to-date reference on all aspects of hypervalent iodine chemistryContains a section on unusual efficiency of hypervalent iodine reactions

Book Information

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Customer Reviews

"I suspect there will be no synthetic chemist who, after reading this book, will not try to include the valuable hypervalent iodine reagents in their synthetic plans." --Andrew N. Boa in CHEMISTRY IN BRITAIN

This book describes the fascinating chemistry of the many kinds of organic compounds of hypervalent iodine. Each chapter deals with a particular iodine compound or families of compounds which have been used as reagents in a plethora of useful transformations. These include assorted oxidation, such as with the precious Dess-Martin reagent, as well as a wide range of further reactions. Prominent features of hypervalent iodine reagents derived from iodobenzene are: ready availability, operational simplicity, mild reaction conditions and high efficiency. They are environmentally safe and can be recycled. New species may be easily prepared by introducing subsituents in the benzene ring or changing the ligand attached to iodine. Their combination with other reagents broadens considerably their synthetic potential. Today, no synthetic chemist can afford to ignore the valuable hypervalent iodine reagents. There is vast and often bewildering array of synthetic methods and reagents available to organic chemists today. Many chemists have their own favoured methods, yet new and unfamiliar methods may well allow a particular synthetic step to be done more readily and in higher yield. best Synthetic Methods allows the practicing synthetic chemist to choose between all the alternatives, and assess their real advantages and limitations. Each volume deals concisely with a particular topic from a practical point of view, giving detailed examples and precise experimental directions and hints. With the emphasis on laboratory use, these volumes represent a comprehensive and practical guide to modern organic chemistry.

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