This book comprehensively covers iodine, its chemistry, and its role in functional materials, reagents, and compounds.

- Provides an up-to-date, detailed overview of iodine chemistry with discussion on elemental aspects: characteristics, properties, iodides, and halogen bonding
- Acts as a useful guide for readers to learn how to synthesize complex compounds using iodine reagents or intermediates
- Describes traditional and modern processing techniques, such as starch, cupper, blowing out, and ion exchange resin methods
- Includes seven detailed sections devoted to the applications of iodine: Characteristics, Production, Synthesis, Biological Applications, Industrial Applications, Bioorganic Chemistry and Environmental Chemistry, and Radioisotopes
- Features hot topics in the field, such as hypervalent iodine-mediated cross coupling reactions, agrochemicals, dye sensitized solar cells, and therapeutic agents

### ABOUT THE AUTHOR

**Tatsuo Kaiho** is the Director of Nihon Tennen Gas Co., Ltd. (Chiba, Japan), one of the most well-known iodine manufacturing companies in the world. The Director of the Society of Iodine Science, Dr. Kaiho developed novel iodine-containing materials and processes and presented independent research at many conferences, including the International Conference of Hypervalent Iodine
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