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Title:	Cationic Compounds of Group 13 Elements
Other Titles:	Entry point to the p-block for modern Lewis acid reagents.
Authors:	Singh, Sanjay (/jspui/browse?type=author&value=Singh%2C+Sanjay) Bhandari, Mamta (/jspui/browse?type=author&value=Bhandari%2C+Mamta) Rawat, Sandeep (/jspui/browse?type=author&value=Rawat%2C+Sandeep) Nembenna, Sharanappa (/jspui/browse?type=author&value=Nembenna%2C+Sharanappa)
Keywords:	Cationic Compounds p-block elements
Issue Date:	2022
Publisher:	Wiley
Citation:	Polar Organometallic Reagents: Synthesis Structure Properties and Applications, 201-269.
Abstract:	This chapter provides an overview of the recent developments in the synthetic, characterization, reactivity studies, and applications of group 13 metal cationic complexes (Al, Ga, In, and Tl) that have appeared in the current decade. The main group elements have gained major attention where the p-block elements particularly of group 13 have received special curiosity. The chapter discusses the examples of cationic group 13 complexes with formally complete octets that is, tetracoordinated species with the view that these complexes also exhibit considerable Lewis acidity and subsequent applications in catalysis. It lists some of the general considerations describing the classification of the complexes, properties of the counter-ions and solvents followed by methods to quantify Lewis acidity both experimentally and computationally. Three main areas where cationic borenium complexes have been utilized as catalysts have been identified since 2015. These are hydroboration, hydrosilylation, and hydrogenation reactions.
Description:	Only IISER Mohali authors are available in the record.
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