

Recent Efforts in Activating C-X Bonds and Small Molecules Using *p*-block compounds

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Some of our last work on activating C-X bonds using Be, B, I and Bi compounds, from the theoretical point of view, will be presented in this seminar. Our DFT calculations are supported by experimental evidence, which complements both sides and give further insight of this chemistry on the road to catalysis. The most important (key) factor to consider these applications are the ligands that are used to stabilize these species. We present the development of a new type of ligand, a frustrated Lewis pair, that allows us to activate small molecules.