

Poster Presentation

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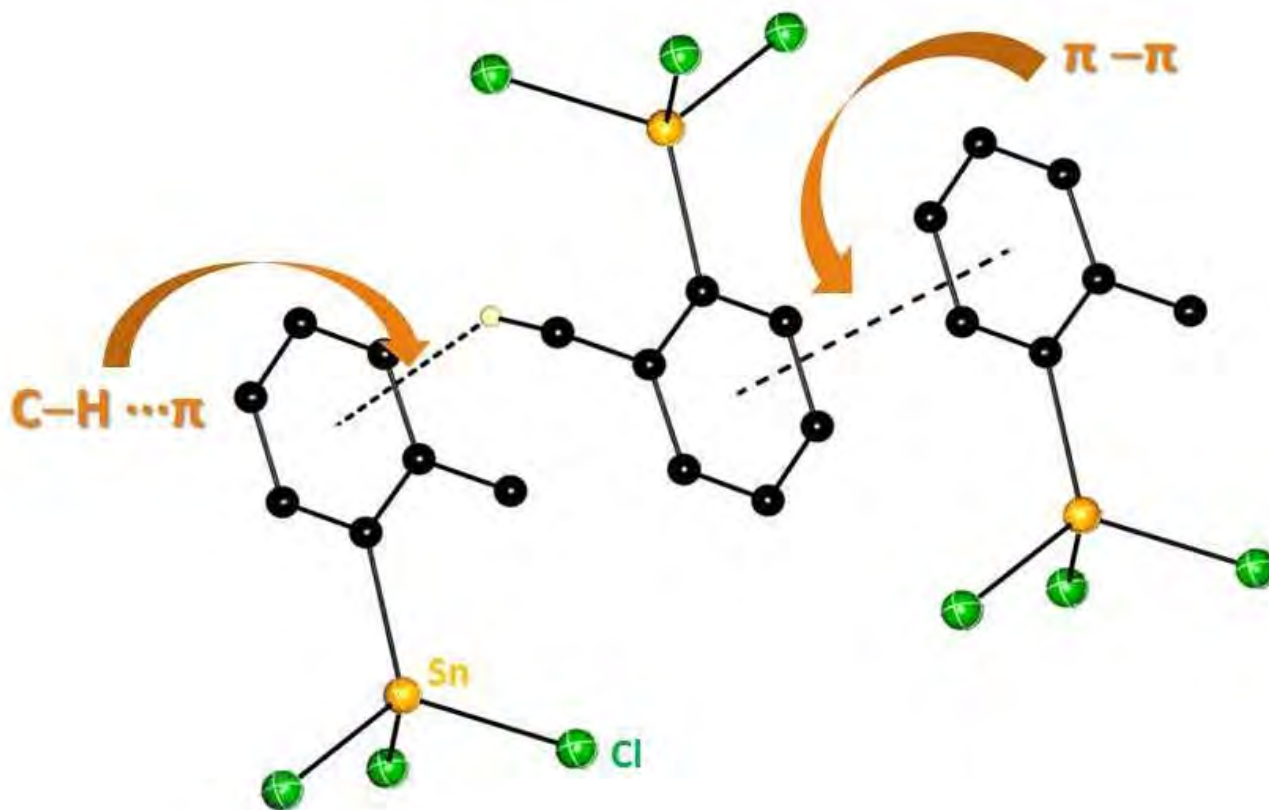
Crystallographic studies of novel aryl heavy Group 14/15 halides and hydrides

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A series of novel aryl (phenyl, tolyl, xylyl, mesityl, naphthyl, anthracenyl) heavy Group 14 and 15 halides (Cl, Br) and hydrides have been synthesized and structurally characterized via X-ray diffraction. Depending on the nature of the aryl substituent, these compounds display a range of non-covalent intermolecular interactions in the form of edge to face, π - π stacking and C-H... π interactions resulting in discrete arrangements in the solid state. The strength of these interactions as well as halide or hydride substituent effects and their consequences on resulting structural parameters will be highlighted and discussed. In addition, in situ crystallization techniques were employed to elucidate the structures of highly air sensitive novel aryl tin and silicon hydride species.

[1] C. Zeppek, R. C. Fischer, A. Torvisco, *Canadian Journal of Chemistry*, 2014, in press



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