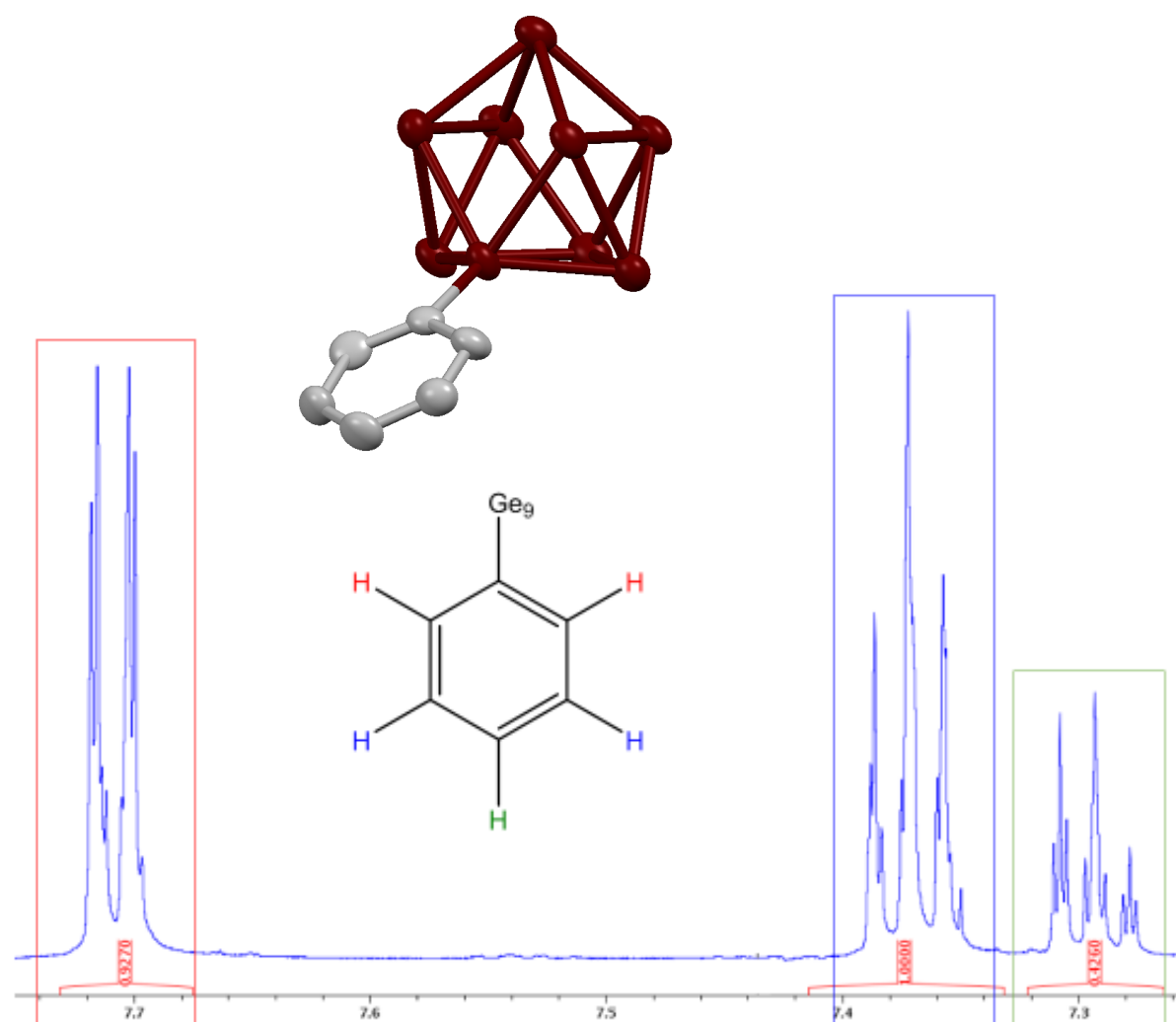




nmr is science



[Ge9-Phenyl]3- in d_6 -DMSO

Sam VandenHeuvel, 2016

Chemistry and Biochemistry Department | University of Notre Dame

Field strength: 500 MHz

Why is this your favorite spectrum?

This spectra showed the first functionalization of a Ge₉ cluster by an aryl species! Ge₉ clusters generally carry a 4- charge and were originally considered to be too reducing to interact with any organic reagent. Naked Ge₉ is soluble in polar solvents but upon addition of the phenyl group shows slight solubility in more non-polar solvents. This solvent ambiguity made cleaning this material for NMR analysis difficult. Eventually, I dissolved crystalline material of my product and got this improved NMR spectra.