

PHOTOELECTRON VELOCITY MAP IMAGING SPECTROSCOPY OF BERYLLIUM-CONTAINING TRIATOMIC ANIONS, BeX_2^- ($\text{X}=\text{O},\text{C}$)

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Beryllium is known to defy conventional bonding motifs in even the smallest of molecular systems. Notable diatomic examples of anomalous bonds include the Be dimer, and dative bonding in BeF^- anion. There is a fundamental interest in understanding how beryllium's bonding characteristics develop with increasing molecular complexity. In the past year, we have moved forward with studies of triatomic species, specifically BeO_2^- and BeC_2^- , through a combination of photoelectron velocity map imaging spectroscopy and *ab initio* computational methods. In this talk, we will present our current understanding of the bonding in these molecules, with comparisons to previously characterized diatomic molecules (BeO^- , BeS^- , BeF^-).