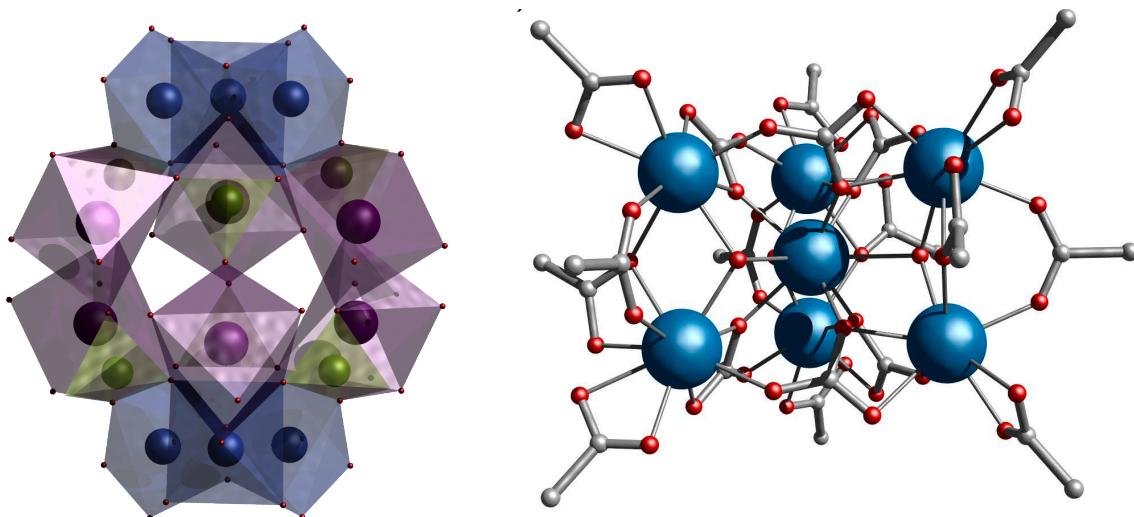


Polymetallic Phosphonate Complexes as High Spin Molecules and Magnetic Coolants

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Phosphonate ligands are ideal for making polymetallic complexes.¹ Here we will discuss studies of the magnetism of these compounds, including heterometallic analogues of the Wells-Dawson ion (Figure 1)² and trigonal prismatic {Gd₇} complexes (Figure 2).³ The magnetic properties of the {Gd₇} prism will be discussed in the context of spin frustration and possible uses as low temperature magnetic refrigerants. We will also discuss a series of heterometallic {Co_xGd_y} compounds.⁴



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