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X-ray Crystallography at the University of the West Indies (UWI), Jamaica: Structures of Novel Metal Complexes and the H-Bonding Interactions Featured in Them. Marvadeen A. Singh-Wilmot, Univ. of the West Indies, Mona, Kingston Jamaica.

The structures of complexes of the transition metal and lanthanide ions are critical to their applications in medicine, catalysis and materials science. As part of two different programs to relate structures of complexes containing organic ligands tethered to i) transition metal ions and ii) lanthanide ions, we have solved the structures of a variety of novel 3d and 4f complexes including some metal clusters. The compounds were crystallized using slow evaporation and vapor diffusion techniques. Data were collected at room temperature on a Bruker P-4 Single Crystal Diffractometer and the structures were solved by Direct and Patterson Methods.