

Synthesis and Structure of Electron Rich Ruthenium Polyhydride Complexes and Clusters Containing AlCp* and GaCp*

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Supporting Information

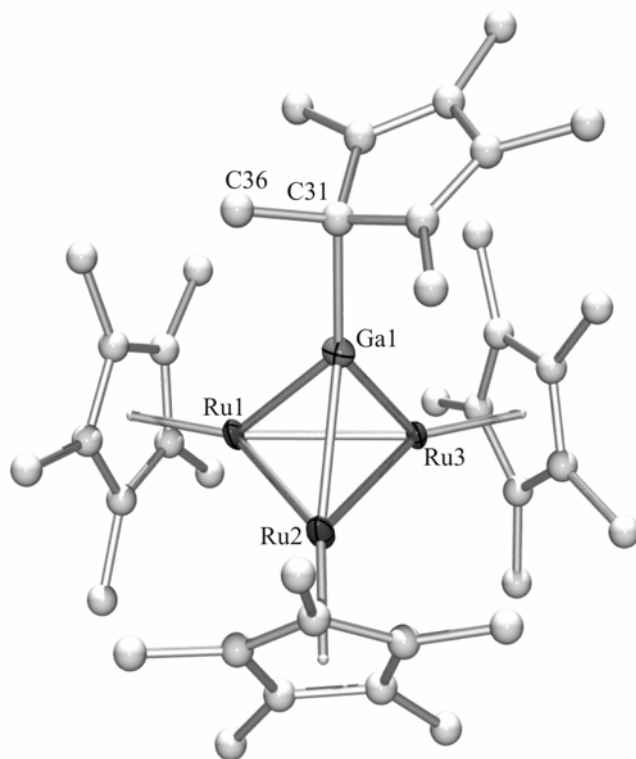


Fig. 4 Molecular structure of $[(\text{Cp}^*\text{Ru})_3(\mu\text{-H})_5(\mu^3\text{-GaCp}^*)]$ (**4**) as determined by single crystal X-ray crystallography (thermal ellipsoids are shown at the 50% probability level, H atoms were not located in the refinement and therefore not shown in the structure model above). Selected bond lengths (Å) and angles (°): Ru(1)-Ga(1) 2.4884(13), Ru(2)-Ga(1) 2.6926(14), Ru(3)-Ga(1) 2.4736(13), Ru(1)-Ru(2) 2.7074(11), Ru(1)-Ru(3) 3.0388(11), Ru(2)-Ru(3) 2.9959(11), Ga(1)-C(31) 2.026(10), Ru(1)-Cp*_{centr.} 1.839, Ru(2)-Cp*_{centr.} 1.827, Ru(3)-Cp*_{centr.} 1.834, Ga(1)-Ru_{centr.} 1.919, Ru(1)Cp*_{centr.}-Ru(1)-Ru_{3centr.} 174.09, Ru(2)Cp*_{centr.}-Ru(2)-Ru_{3centr.} 172.31, Ru(3)Cp*_{centr.}-Ru(3)-Ru_{3centr.} 146.01, Ga(1)-Ru(1)-Ru(2) 62.26(3), Ga(1)-Ru(1)-Ru(3) 52.02(3), Ga(1)-Ru(2)-Ru(1) 54.88(3), Ga(1)-Ru(2)-Ru(3) 51.21(3), Ga(1)-Ru(3)-Ru(2) 58.05(3), Ga(1)-Ru(3)-Ru(1) 52.46(3), Ru(2)-Ru(3)-Ru(1) 53.31(2), Ru(1)-Ga(1)-Ru(2) 62.86(4), Ru(2)-Ru(1)-Ru(3) 62.54(3), Ru(1)-Ru(2)-Ru(3) 64.16(3), C(36)-C(31)-Ga(1) 105.7(6)