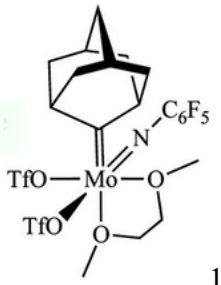
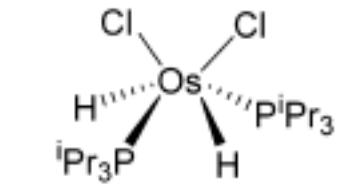
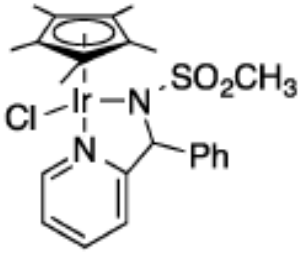
1) Shown below are several organometallic molecules from the Table of Contents of recent issues of Organometallics. Give the valence electron count, the formal oxidation state, and the d^n configuration of the metal for each.



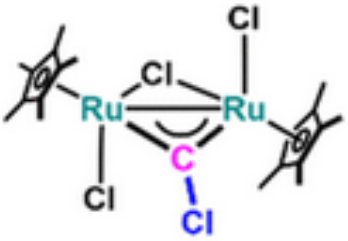
16 e, Mo(VI), d^0



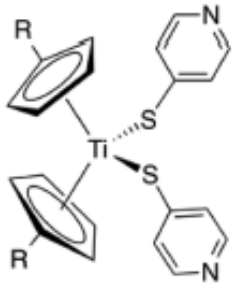
16 e, Os(IV), d^4



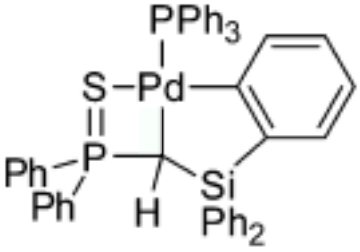
18 e, Ir(III), d^6



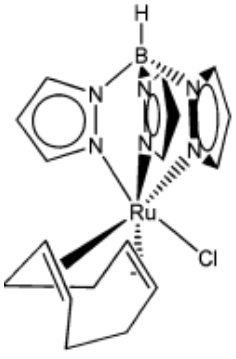
18 e, Ru(IV), d^4



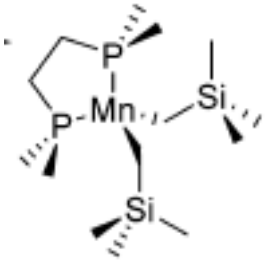
16 e, Ti(IV), d^0



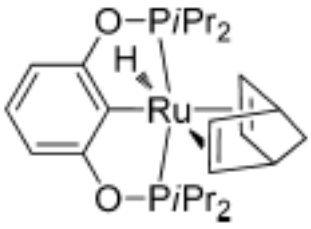
16 e, Pd(II), d^8



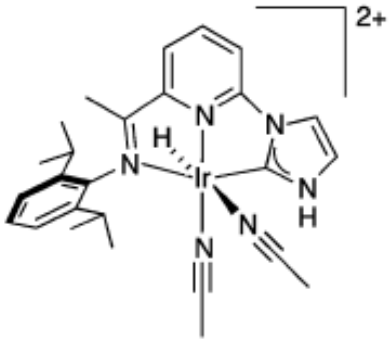
18 e, Ru(II), d^6



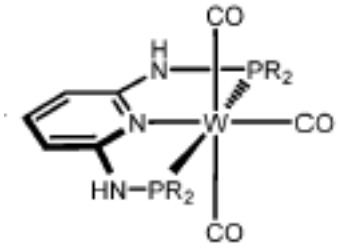
13 e, Mn(II), d^5



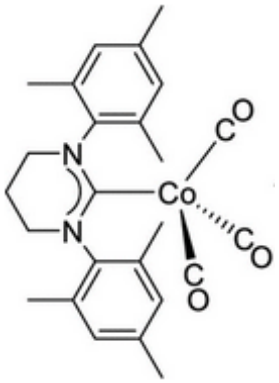
18 e, Ru(II), d^6



18 e, Ir(III), d^6

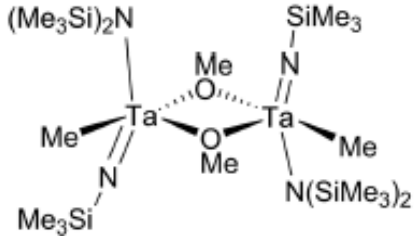


18 e, W(0), d^6

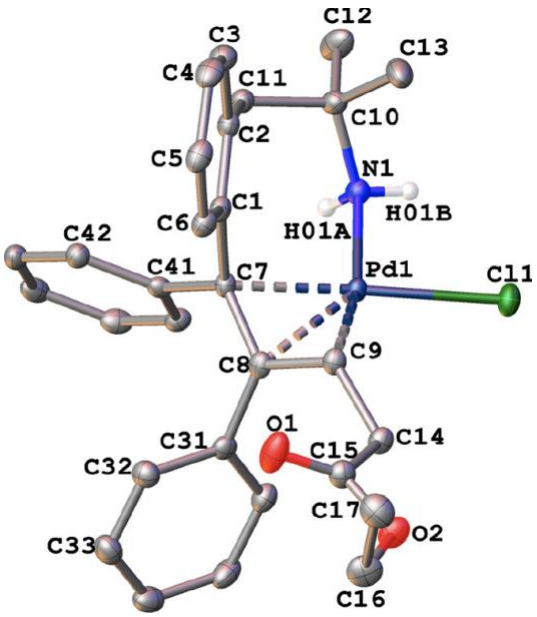


17e, Co(0), d^9

16 e, Zr(IV), d^0



12 e, Ta(V), d^0



This one is an ORTEP! 16 e, Pd(II), d^8