

1. (5) Draw structures for (1) COD; (2) Cp^- ; (3) Cp^{*-} ; (4) acetonitrile; (5) THF.

2. (4) Draw structures for the simplest carbonyls of Cr and Mn.

3. (6) Provide the d electron count, the total electron count, and the formal oxidation state of the metal for each of the complexes given below.

	$\text{Rh}(\text{CO})_2\text{I}_2^-$	$\text{V}(\text{CO})_6$
d electron count	-----	-----
total electron count	-----	-----
formal oxidation state	-----	-----

4. (8) The reaction sequence shown below provides two isomeric alkyl iodides. Draw their structures and show the first and one of the second steps of the mechanism for the first reaction in the sequence.

