WORKSHEETS: INORGANIC CHEMISTRY (TRADITIONAL)

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CHAPTER OVERVIEW

Worksheets: Inorganic Chemistry (Traditional)

In an effort to introduce more engaged learning in courses, you can assign worksheets for the discussions. This helps to standardize class variability in their discussions and provides a consistent platform for the students to work from.

Electron Counting in Organometallic Complexes (Worksheet)

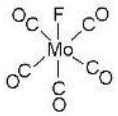
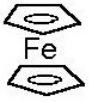
Name: _____

Section: _____

Student ID#:_____

Work in groups on these problems. You should try to answer the questions without referring to your textbook. If you get stuck, try asking another group for help.

Determine the number of electrons for each compound or complex below and whether you expect it to be stable:

$(\eta^6-C_6H_6)_2Fe$	$Ru(PPh_3)_2(CO)_2$
$Cp_2NbH(C_2H_4)$	$[HFe(CO)_4]^-$
$Re(CO)_5$	$Pt(PBu_3)_3$
$Cp(NO)_2W-H$	$(PrO)_3W=CMe_2$
$[Cp(diphos)(CO)_2Mo]^+$	$[Cp(PhCCH)(CO)_2Fe]^+$
$(\eta^6-C_6H_6)Mn(CO)_2CH_3$	$[Cp(CO)(NO)Mo(\eta^3-C_3H_3]^+$
Vaska's compound: $trans-Ir(PPh_3)_2(CO)Cl$	$Cp(CO)_2Re(CH_3)_2$
$Cp*Ru(CO)_2Br$	$CpRu(PPh_3)_2Cl$
$[CpRu(PPh_3)_2]^+$	$[CpRu(PPh_3)_2(n-PrSH)]^+$
$(NH_4)_2MoO_4$	$Cp_2ZrCl(OMe)$
$Cp_2Ti(CO)_2$	$(Ph)_2Ni(PPh_3)_2$
$Mo(CO)_6$	$PtCl_2I_2^{2-}$
$[CpRu(CO)_2]_2$	$Cp_2Mo(HCCH)$
$PdCl_2(NCCH_3)_2$	$Mo(CO)_3(NCCH_3)_3$
	
$Cp \rightarrow \eta^5-C_5H_5^-$	
$Cp* \rightarrow \eta^5-C_5(CH_3)_5^-$	
$diphose \rightarrow Ph_2PCH_2CH_2PPh_2$	