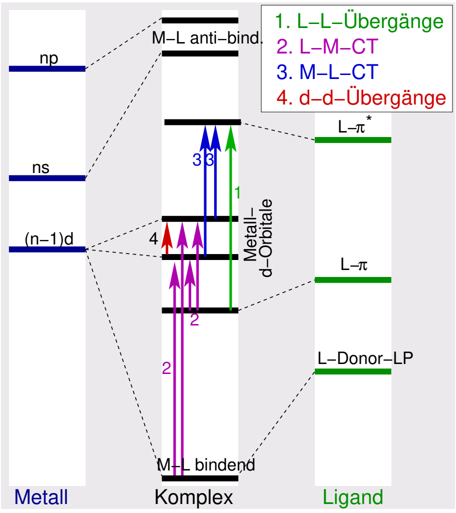
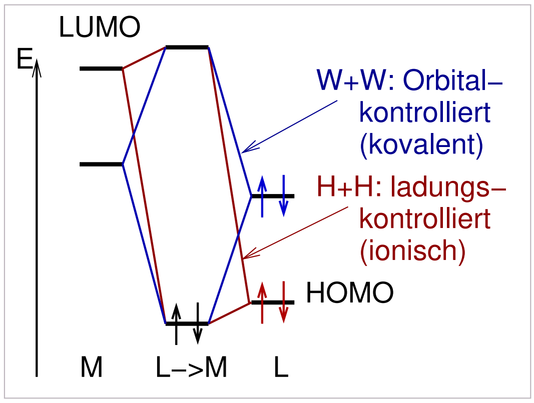
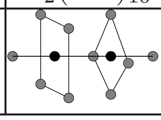
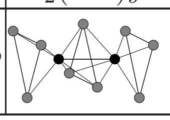
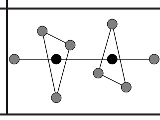
8. Übergangsmetalle (Forts.)



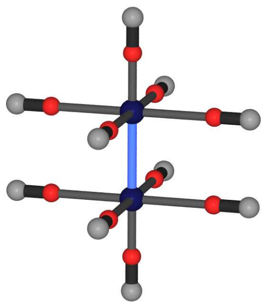
Elektronische Übergänge in farbigen Komplexen



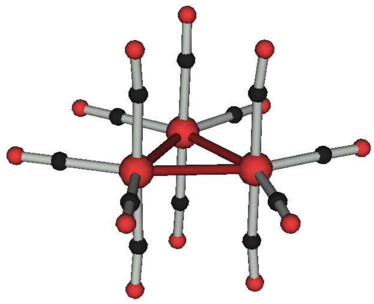
Bindungscharakter in Komplexen

Nebengr.	IV	V	VI	VII	VIII		
Valenz-e$^-$	4	5	6	7	8	9	10
Neutralmoleküle							
einkernig							
Verbindung		$V(CO)_6$	$Cr(CO)_6$ $Mo(CO)_6$ $W(CO)_6$	-	$Fe(CO)_5$ $Ru(CO)_5$ $Os(CO)_5$	- - -	$Ni(CO)_4$
Struktur		okta- edrisch	okta- edrisch		trigonal- bipyramidal		tetra- edrisch
Eigenschaft		kristallin paramagn.	kristallin		flüssig		flüssig
zweikernig							
Verbindung				$Mn_2(CO)_{10}$ $Tc_2(CO)_{10}$ $Re_2(CO)_{10}$	$Fe_2(CO)_9$ $Ru_2(CO)_9$ $Os_2(CO)_9$	$Co_2(CO)_8$ - -	
Struktur							
Anionen							
einkernig							
Zusammen- setzung	$Zr(CO)_6^{2-}$	$M(CO)_6^-$ $M(CO)_5^{3-}$	$M(CO)_5^{2-}$ $M(CO)_4^{4-}$	$M(CO)_5^-$ $M(CO)_4^{3-}$	$M(CO)_4^{2-}$	$M(CO)_4^-$ $M(CO)_3^{3-}$	

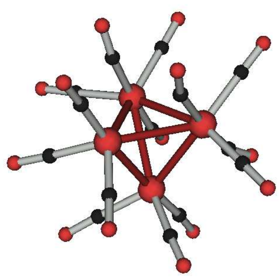
Übersicht ein- und zweikernige Metallcarbonyle



$Re_2(CO)_{10}$



$Ru_3(CO)_{12}$



$Os_4(CO)_{14}$

Strukturen mehrkerniger Carbonylkomplexe