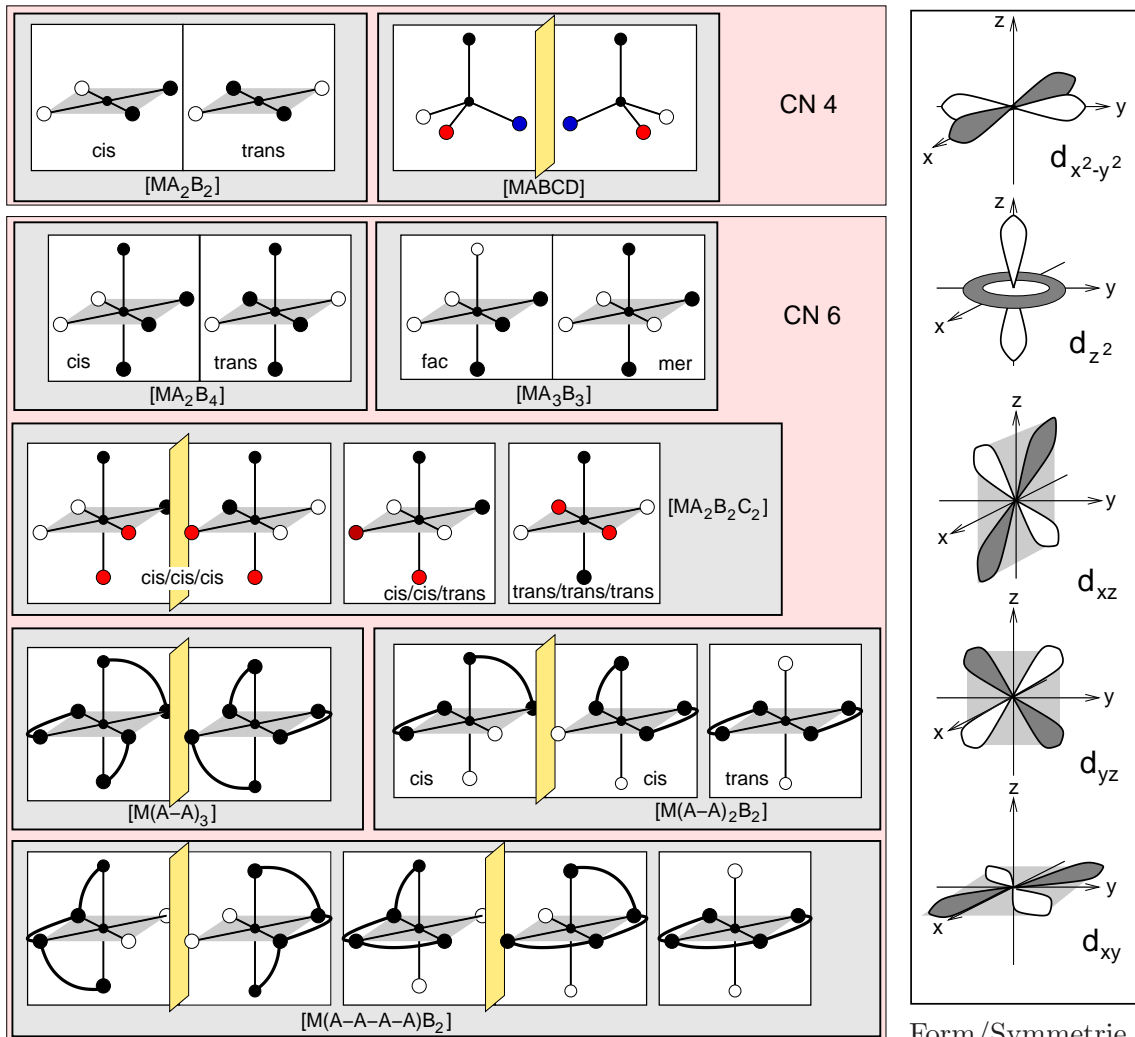


8. Übergangsmetalle

8.3. Koordinationsverbindungen



Isomerie bei Komplexen mit CN=4 und CN=6

Form/Symmetrie der d-Orbitale

	3d	-4s- 4p	4d	
Fe^{2+}	$\uparrow\downarrow \uparrow\downarrow \uparrow \uparrow \uparrow$			
$[Fe^{II}(H_2O)_6]^{2+}$	$\uparrow\downarrow \uparrow\downarrow \uparrow \uparrow \uparrow$	$\uparrow\downarrow \uparrow\downarrow \uparrow\downarrow \uparrow\downarrow \uparrow\downarrow$	$\uparrow\downarrow \uparrow\downarrow$	oktaedr.
$[Fe^{II}(CN)_6]^{4-}$	$\uparrow\downarrow \uparrow\downarrow \uparrow\downarrow \uparrow\downarrow \uparrow\downarrow$	$\uparrow\downarrow \uparrow\downarrow \uparrow\downarrow \uparrow\downarrow \uparrow\downarrow$		oktaedr.
$Ni^{2+} (d^8)$	$\uparrow\downarrow \uparrow\downarrow \uparrow\downarrow \uparrow \uparrow$			
$[Ni^{II}(H_2O)_6]^{2+}$	$\uparrow\downarrow \uparrow\downarrow \uparrow\downarrow \uparrow \uparrow$	$\uparrow\downarrow \uparrow\downarrow \uparrow\downarrow \uparrow\downarrow \uparrow\downarrow$	$\uparrow\downarrow \uparrow\downarrow$	oktaedr.
$[Ni^{II}Cl_4]^{2-}$	$\uparrow\downarrow \uparrow\downarrow \uparrow\downarrow \uparrow \uparrow$	$\uparrow\downarrow \uparrow\downarrow \uparrow\downarrow \uparrow\downarrow \uparrow\downarrow$		tetraedr.
$[Ni^{II}(CN)_4]^{2-}$	$\uparrow\downarrow \uparrow\downarrow \uparrow\downarrow \uparrow\downarrow \uparrow\downarrow$	$\uparrow\downarrow \uparrow\downarrow \uparrow\downarrow \uparrow\downarrow$		quadr. planar
$[Ni^0(CO)_4]$	$\uparrow\downarrow \uparrow\downarrow \uparrow\downarrow \uparrow\downarrow \uparrow\downarrow$	$\uparrow\downarrow \uparrow\downarrow \uparrow\downarrow \uparrow\downarrow \uparrow\downarrow$		tetraedr.

■ Ligand-Elektronenpaare