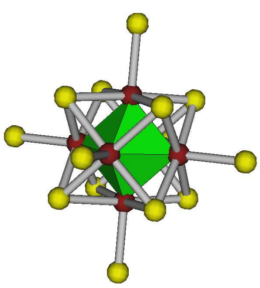
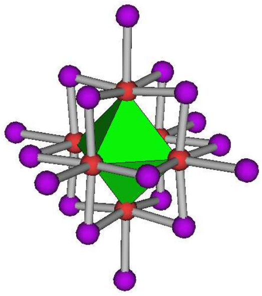
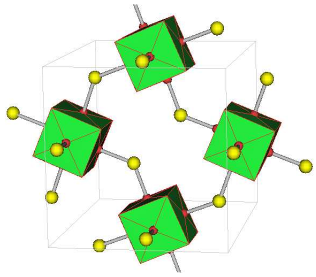
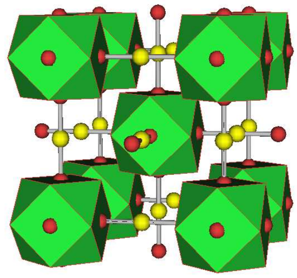
## **Übergangsmetall-Cluster** (Forts.)

### $M_6$-Cluster

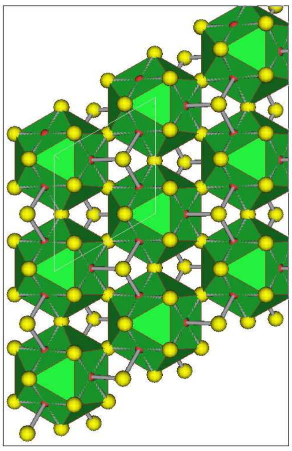

$M_6X_8$-Baueinheit

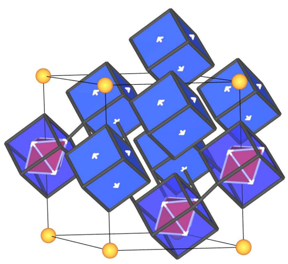

$M_6X_{12}$-Baueinheit

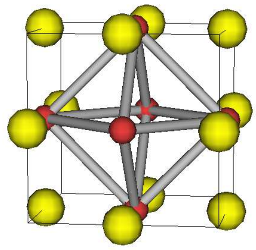

$Mo_6Cl_{12}$ (Schicht)

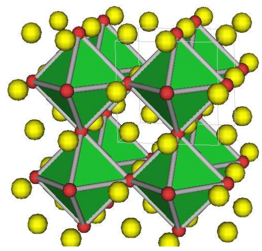

$Nb_6F_{15}$

| Verbindungen | Struktur | X/M | $e^-$/Cluster |
|---|---|---|---|
| $W_6X_{18}$ (X=Cl,Br) | $[M_6X_{12}]X_6$ | 3 | 18 (KO) |
| $Nb_6F_{15}$, $Nb_6X_{15}$ (X=Cl,Br) | $[M_6X_{12}]X_{6/2}$ | 2.5 | 15 (KO) |
| $Zr_6Cl_{15}$ | | 2.5 | 15 (KO) |
| $Nb_6Cl_{14}$, $Ta_6X_{14}$ (X=Cl,Br) | $[M_6X_{12}]X_{4/2}$ | 2.333 | 16 (KO) |
| $Mo_6X_{12}$ (X=Cl,Br,I), $W_6X_{12}$ (X=Br,I) | $[M_6X_8]X_2X_{4/2}$ | 2 | 24 (W) |
| $Nb_6I_{11}$ | $[M_6X_8]X_{6/2}$ | 1.8333 | 19 (W) |
| $Mo_6Br_6S_3$ | | 1.5 | 24 (W) |
| $Mo_6S_8$, Chevrell-Ph. | | 1.333 | 24 (W) |
| ZrCl | | 1 | (W) |

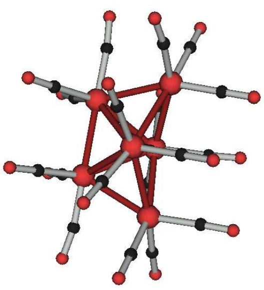

$Mg_3Nb_6O_{11}$

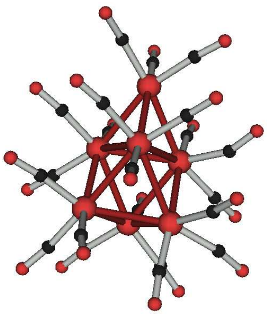

Chevrell-Phasen

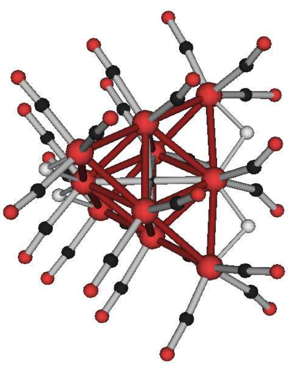

NbO

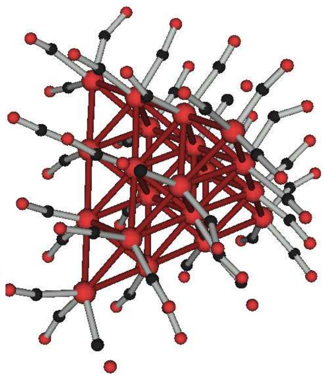

NbO

### $M_x$-Cluster (x>6)


$Os_6(CO)_{18}$


$Os_7(CO)_{21}$


$[Os_{10}C(CO)_{40}H_2]$


$[Os_{20}(CO)_{40}]^{2-}$