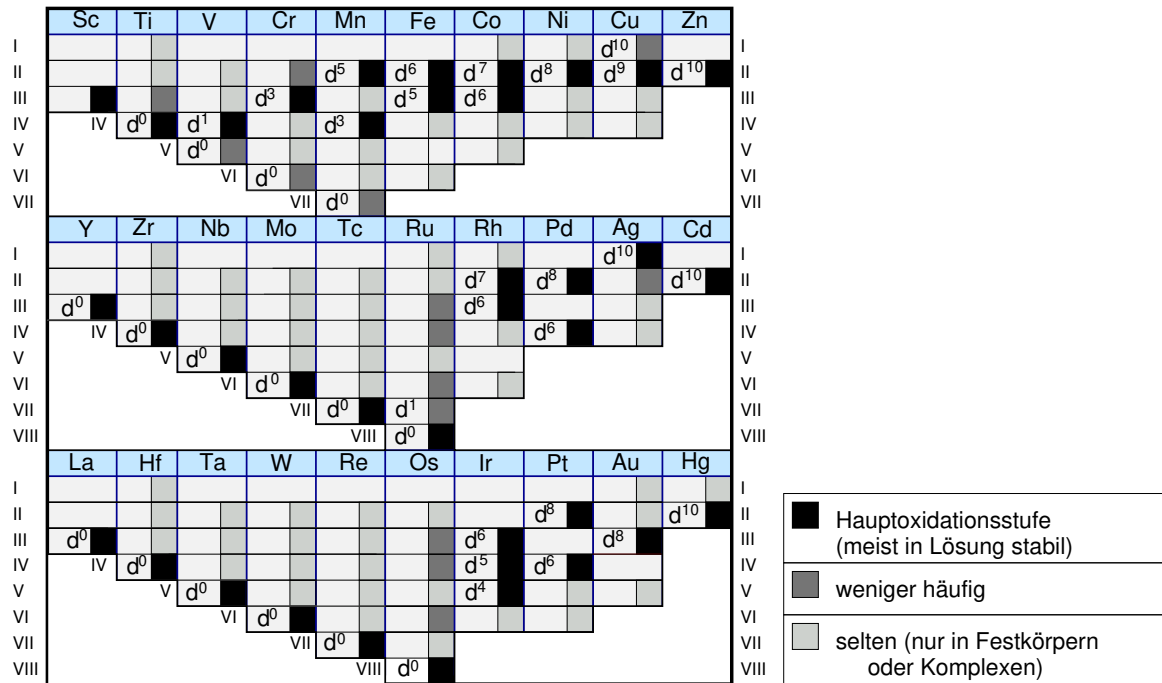
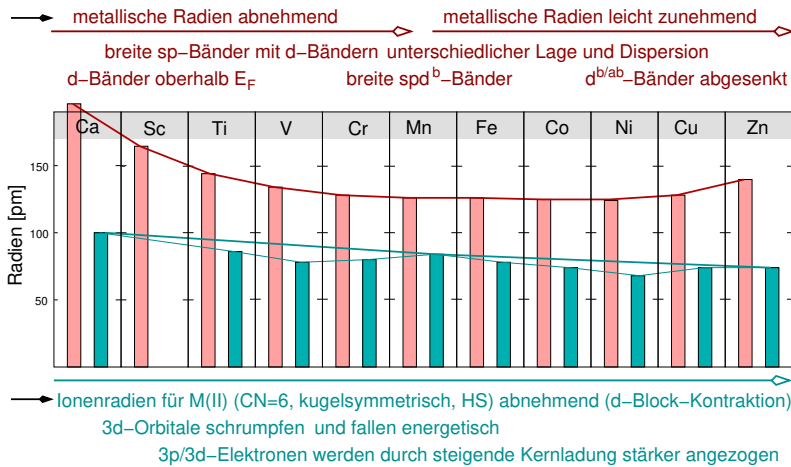


8. Nebengruppenmetalle

8.1. Übersicht



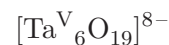
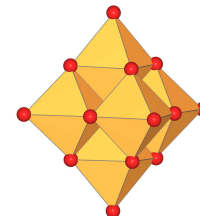
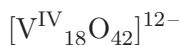
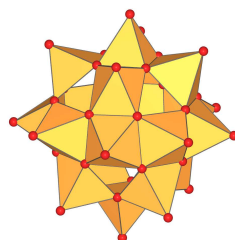
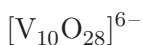
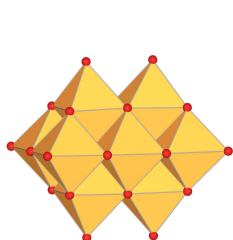
Oxidationsstufen der Übergangsmetalle



Einfluß der (n + 1) s- und n-d-Orbitale auf die Radien der Übergangsmetalle

M	→ M-Radius und damit M-Koordination abnehmend →					
3d	+II	+III	+IV	+V	+VI	+VII
sauer	[M(H ₂ O) ₆] ²⁺	[M(H ₂ O) ₆] ³⁺	[M ^{IV} (OH) ₂ (H ₂ O) ₄] ²⁺	[M ^V (O) ₂ (H ₂ O) ₄] ⁺	[M ^{VI} ₂ O ₇] ²⁻	[M ^{VII} O ₄] ⁻
neutral	"	M(OH) ₃ ↓	M ^{IV} O ₂ aq. ↓	Isopoly-A., [M ₁₀ O ₂₈] ⁶⁻	"	"
basisch	M(OH) ₂ ↓	"	"	[M ^V O ₄] ³⁻	[M ^{VI} O ₄] ²⁻	"
4d/5d	+II	+III	+IV	+V	+VI	+VII
sauer	[M(H ₂ O) ₆] ²⁺	[M(H ₂ O) ₆] ³⁺	[M ^{IV} ₄ (OH) ₈ (H ₂ O) ₁₆] ⁸⁺	[M ^V (O) ₂ (H ₂ O) ₄] ⁺	M ^{VI} O ₃	[M ^{VII} O ₄ (OH) ₂] ³⁻
neutral	"	"	M ^{IV} O ₂ aq. ↓	Isopoly-A., [M ₆ O ₁₉] ⁸⁻	Isopoly-A.	keine Isopoly-A.
basisch	"	"	"	M ^V ₂ O ₅	[M ^{VI} O ₄] ²⁻	"

Mⁿ⁺-Spezies in wässrigen Lösungen



Beispiele für Isopoly-Anionen