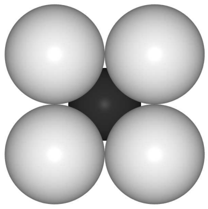
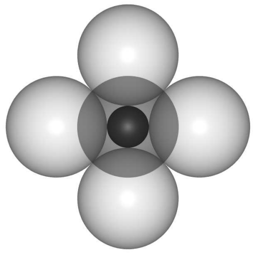
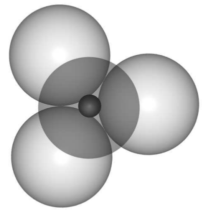
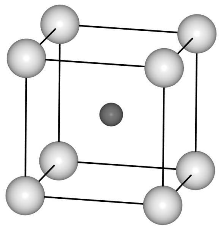
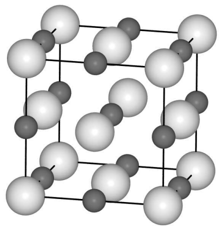
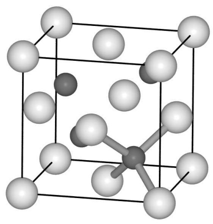
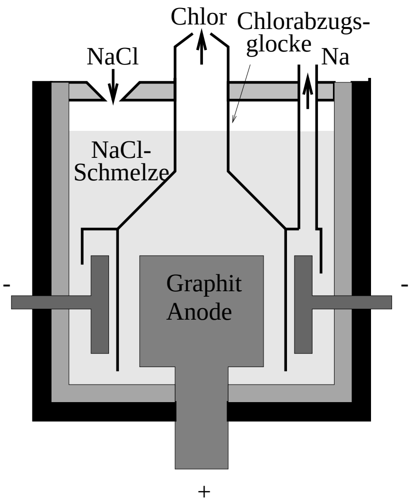
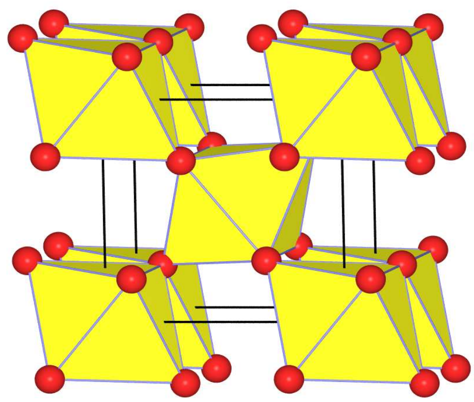
Koordinationszahlen in/Strukturen von Ionenkristallen (AB-Typen)

$CN_{Anion} = CN_{Kation}$	8	6	4
$\frac{r_{Kation}}{r_{Anion}}$	> 0.73	$0.73 - 0.41$	$0.41 - 0.22$
Kationen-Koordination			
Elementarzelle			
Strukturtyp	CsCl	NaCl	ZnS (Zinkblende)
Beispiele	CsCl, CsI	LiF, LiCl, NaF, NaCl, KF, KCl, RbF, RbCl, CsF, MgO, CaO, SrO, BaO, CaS, SrS	BeO, MgTe



Downs-Zelle zur Na-Herstellung



Struktur von $CaCl_2$ (fast Rutil-Typ)

Alkali-/Erdalkalimetalle (Eigenschaften, wichtige Verbindungen)

	Alkalimetalle				Erdalkalimetalle				
	Li	Na	K	Rb/Cs	Be	Mg	Ca	Sr	Ba
Elemente	⟵ weiße, weiche, sehr luftempfindliche Metalle ⟶								
Darstellung	⟵ elektrochemisch ⟶		⟵ chemisch ⟶		⟵ elektrochemisch ⟶				chemisch
Oxide	Li_2O	Na_2O Na_2O_2	⟵ MO_2 ⟶	Suboxide	BeO	MgO (Magnesia)	CaO (Ätzkalk, gebr Kalk)		
Carbonate	$Li_2CO_3 \downarrow$	$Na_2CO_3 \cdot 10H_2O$ (Soda)	K_2CO_3 (Pottasche)				$CaCO_3$ (Calcit, Aragonit,Vaterit)		
Nitrate (alle löslich)		$NaNO_3$ (Chilesalpeter)	KNO_3 (Salpeter)						
Sulfate		$Na_2SO_4 \cdot 10H_2O$ (Glaubersalz)				$MgSO_4 \cdot 7H_2O$ (Bittersalz)	$CaSO_4 \cdot 2H_2O$ (Gips) $CaSO_4 \cdot \frac{1}{2}H_2O$	$SrSO_4 \downarrow$	$BaSO_4 \downarrow$
Halogenide	⟵ alle leicht löslich ⟶				kov.	⟵ Fluoride schwerlöslich ⟶			
sonst. Verb.	⟵ $M[Sb(OH)_6] \downarrow$ ⟶		$K_2[PtCl_6] \downarrow$ $KClO_4 \downarrow$			$MgNH_4(PO_4) \cdot 6H_2O \downarrow$	$Ca_5[PO_4]_3(OH)$ (Apatit)		$BaCrO_4 \downarrow$
Spektren Linienlagen in [nm]	violett-rot 780 421.5	gelb 589	violett 768.2 404.4	viol.-rosa	- - -	- - -	rot 622.0 553.3	rot 650-660 460.7	fahlgrün 524.2 513.9