





# Periodensystem der Atome und Ionen - Grundbausteine der Materie

VII VIII  
1- 0

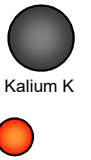
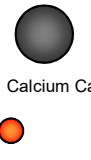


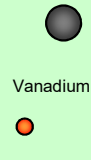







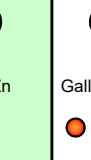

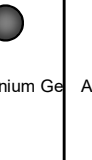


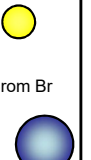
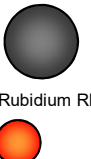
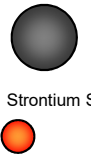

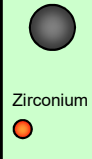
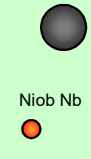
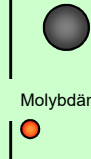


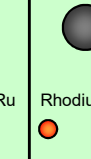
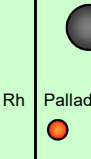

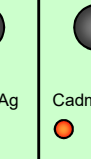

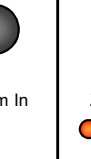
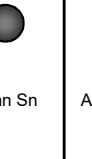
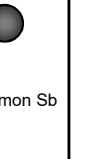

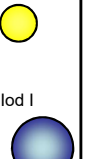
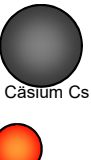




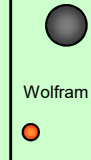
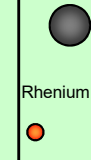
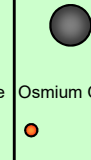



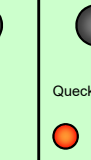
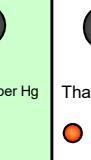


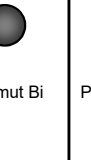
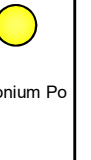

I II  
1+ 2+

 Lithium Li $Li^+$	 Beryllium Be $Be^{2+}$
 Natrium Na $Na^+$	 Magnesium Mg $Mg^{2+}$

## Kombiregeln:

Verknüpfung nach Standort im Periodensystem	Teilchenart	Bindungsart	Struktur
„links und links“ „rechts und rechts“	Metall-Atom(rümpf)e Nichtmetall- Atome	Metallbindung (räumlich ungerichtet) Atombindung (räumlich gerichtet)	Metallgitter Moleküle, Molekülgitter
„links und rechts“	Ionen	Ionenbindung (räumlich ungerichtet)	Ionengitter

Nebengruppenmetall-Kationen: evtl. verschiedene Ionenladungszahlen  
=> Ionenladungszahl als röm. Zahl bei Benennung angegeben

 Kalium K $K^+$	 Calcium Ca $Ca^{2+}$	 Scandium Sc $Sc^{3+}$	 Titan Ti $Ti^{4+}$	 Vanadium V $V^{5+}$	 Chrom Cr $Cr^{3+}Cr^{6+}$	 Mangan Mn $Mn^{2+}Mn^{7+}$	 Eisen Fe $Fe^{2+}Fe^{3+}$	 Cobalt Co $Co^{2+}$	 Nickel Ni $Ni^{2+}$	 Kupfer Cu $Cu^+Cu^{2+}$	 Zink Zn $Zn^{2+}$	 Gallium Ga $Ga^{3+}$	 Germanium Ge $Ge^{4+}$	 Arsen As $As^{3-}$	 Selen Se $Se^{2-}$	 Brom Br $Br^-$	 Krypton Kr
 Rubidium Rb $Rb^+$	 Strontium Sr $Sr^{2+}$	 Yttrium Y $Y^{3+}$	 Zirkonium Zr $Zr^{4+}$	 Niob Nb $Nb^{5+}$	 Molybdän Mo $Mo^{6+}$	 Technetium Tc $Tc^{7+}$	 Rubidium Ru $Ru^{3+}$	 Rhodium Rh $Rh^{3+}$	 Palladium Pd $Pd^{2+}$	 Silber Ag $Ag^+$	 Cadmium Cd $Cd^{2+}$	 Indium In $In^{3+}$	 Zinn Sn $Sn^{4+}$	 Antimon Sb	 Tellur Te $Te^{2-}$	 Iod I $I^-$	 Xenon Xe
 Cäsium Cs $Cs^+$	 Barium Ba $Ba^{2+}$	 Lanthan La $La^{3+}$	 Hafnium Hf $Hf^{4+}$	 Tantal Ta $Ta^{5+}$	 Wolfram W $W^{6+}$	 Rhenium Re $Re^{7+}$	 Osmium Os $Os^{4+}$	 Iridium Ir $Ir^{3+}$	 Platin Pt $Pt^{2+}$	 Gold Au $Au^+$	 Quecksilber Hg $Hg^{2+}$	 Thallium Tl $Tl^{3+}$	 Blei Pb $Pb^{2+}Pb^{4+}$	 Bismut Bi	 Polonium Po	 Astat At	 Radon Rn