2. Strukturchemie kovalenter Festkörper

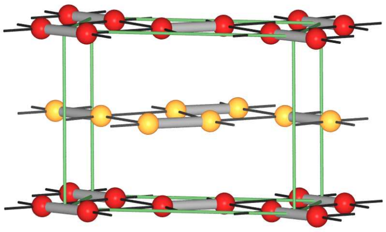
2.1. Bindung, Konzepte, Radien

	H					He
r_{kov}	37					-
r_{vdW}	120					140
		C	N	O	F	Ne
r_{kov}		77	74	74	72	-
r_{vdW}		170	155	152	147	154
		Si	P	S	Cl	Ar
r_{kov}		117	110	104	99	-
r_{vdW}		210	180	180	175	188
		Ge	As	Se	Br	Kr
r_{kov}		122	121	117	114	-
r_{vdW}			185	190	185	202
		Sn	Sb	Te	I	Xe
r_{kov}		140	141	137	133	-
r_{vdW}			200	206	198	216

Kovalenz- und van-der-Waals-Radien der Nichtmetalle

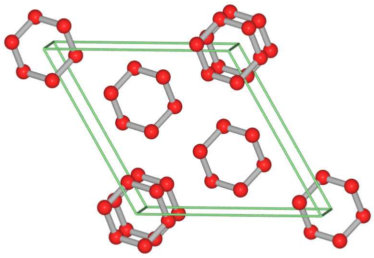
2.2. Elementstrukturen

2.2.2. Halogene

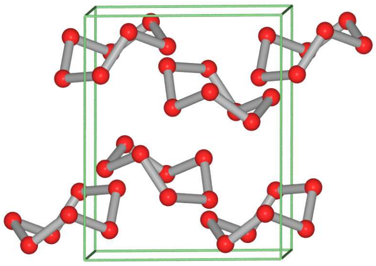


X_2	$r_{kov.}$	r_{vdW}	d^1_{X-X} intramol.	d^2_{X-X} in Schichten	d^3_{X-X} zwischen Schichten	d^2/d^1
F_2	72	147	149	282		
Cl_2	99	175	198	332-382	374-397	1.93
Br_2	114	185	227	331-379	399-414	1.67
I_2	133	198	267	357-405	435-450	1.52

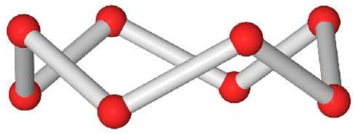
2.2.3. Chalkogene



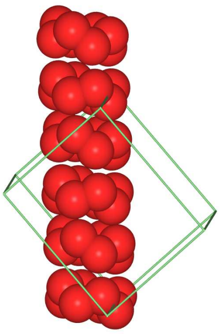
S_6



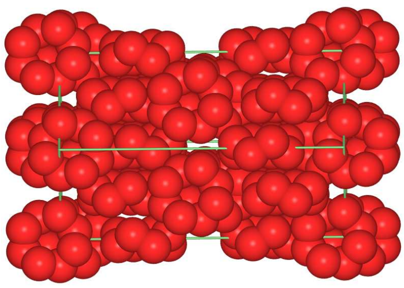
S_7



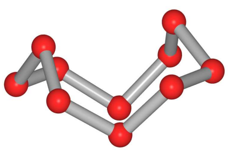
S_8 (Molekül)



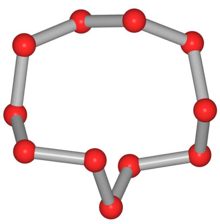
S_8 (Einzelrolle)



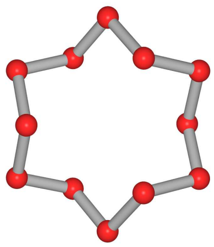
S_8 (orthorhombisch)



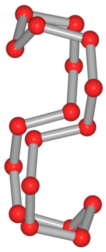
S_{10}



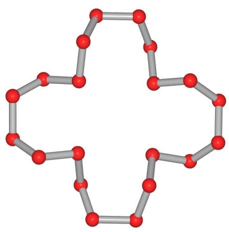
S_{11}



S_{12}



S_{18}



S_{20}