

# Hovedgrupper

1 2

# Grundstoffernes periodiske system

# Hovedgrupper

3 4 5 6 7 8

periode 1

1,00794	1
<b>H</b>	
1	
Hydrogen	

*Eksempel*

Atommassen → 26,98154

Kemisk symbol → **Al**

Atomnummer → 13

Kemisk navn → Aluminium

Antal elektroner i de forskellige skaller

2
8
3

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4,00260	2
<b>He</b>	
2	
Helium	

periode 2

6,941	2	9,01218	2
<b>Li</b>	1	<b>Be</b>	2
3		4	
Lithium		Beryllium	

10,811	2	12,011	2	14,0067	2	15,9994	2	18,99840	2	20,1797	2
<b>B</b>	3	<b>C</b>	4	<b>N</b>	5	<b>O</b>	6	<b>F</b>	7	<b>Ne</b>	8
5		6		7		8		9		10	
Bor		Carbon		Nitrogen		Oxygen		Fluor		Neon	

periode 3

22,98997	2	24,3050	2
<b>Na</b>	1	<b>Mg</b>	2
11		12	
Natrium		Magnesium	

26,98154	2	28,0855	2	30,97376	2	32,066	2	35,4527	2	39,948	2
<b>Al</b>	3	<b>Si</b>	4	<b>P</b>	5	<b>S</b>	6	<b>Cl</b>	7	<b>Ar</b>	8
13		14		15		16		17		18	
Aluminium		Silicium		Phosphor		Svovl		Clor		Argon	

## Undergrupper

periode 4

39,0983	2	40,078	2	44,9559	2	47,88	2	50,9414	2	51,9961	2	54,9380	2	55,847	2	58,9332	2	58,6937	2	63,546	2	65,39	2	69,723	2	72,61	2	74,9216	2	78,96	2	79,904	2	83,80	2
<b>K</b>	1	<b>Ca</b>	2	<b>Sc</b>	2	<b>Ti</b>	2	<b>V</b>	2	<b>Cr</b>	2	<b>Mn</b>	2	<b>Fe</b>	2	<b>Co</b>	2	<b>Ni</b>	2	<b>Cu</b>	2	<b>Zn</b>	2	<b>Ga</b>	2	<b>Ge</b>	2	<b>As</b>	2	<b>Se</b>	2	<b>Br</b>	2	<b>Kr</b>	2
19		20		21		22		23		24		25		26		27		28		29		30		31		32		33		34		35		36	
Kalium		Calcium		Scandium		Titan		Vanadium		Chrom		Mangan		Ferrum		Cobalt		Nikkel		Kobber		Zink		Gallium		Germanium		Arsen		Selen		Brom		Krypton	

periode 5

85,4678	2	87,62	2	88,90585	2	91,224	2	92,9064	2	95,94	2	96,9063	2	101,07	2	102,9055	2	106,42	2	107,8682	2	112,411	2	114,818	2	118,71	2	121,757	2	127,60	2	126,9045	2	131,29	2
<b>Rb</b>	1	<b>Sr</b>	2	<b>Y</b>	2	<b>Zr</b>	2	<b>Nb</b>	2	<b>Mo</b>	2	<b>Tc</b>	2	<b>Ru</b>	2	<b>Rh</b>	2	<b>Pd</b>	2	<b>Ag</b>	2	<b>Cd</b>	2	<b>In</b>	2	<b>Sn</b>	2	<b>Sb</b>	2	<b>Te</b>	2	<b>J</b>	2	<b>Xe</b>	2
37		38		39		40		41		42		43		44		45		46		47		48		49		50		51		52		53		54	
Rubidium		Strontium		Yttrium		Zirconium		Niobium		Molybdæn		Technetium		Ruthenium		Rhodium		Palladium		Sølv		Cadmium		Indium		Tin		Antimon		Tellur		Jod		Xenon	

periode 6

132,9054	2	137,327	2	178,49	2	180,9479	2	183,84	2	186,207	2	190,23	2	192,22	2	195,08	2	196,9665	2	200,59	2	204,3833	2	207,2	2	208,9804	2	208,9894	2	209,9871	2	222,0176	2
<b>Cs</b>	1	<b>Ba</b>	2	<b>Hf</b>	2	<b>Ta</b>	2	<b>W</b>	2	<b>Re</b>	2	<b>Os</b>	2	<b>Ir</b>	2	<b>Pt</b>	2	<b>Au</b>	2	<b>Hg</b>	2	<b>Tl</b>	2	<b>Pb</b>	2	<b>Bi</b>	2	<b>Po</b>	2	<b>At</b>	2	<b>Rn</b>	2
55		56		72		73		74		75		76		77		78		79		80		81		82		83		84		85		86	
Cæsium		Barium		Hafnium		Tantal		Wolfram		Rhenium		Osmium		Iridium		Platin		Guld		Kviksølv		Thallium		Bly		Bismuth		Polonium		Astat		Radon	

periode 7

223,019	2	226,0254	2	261,1087	2	262,1136	2	263,1182	2	262,1229	2	265	2	266	2	271	2	272	2	277	2	Uut	2	Uuq	2	Uup	2	Uuh	2	Uus	2	Uuo	2
<b>Fr</b>	1	<b>Ra</b>	2	<b>Rf</b>	2	<b>Db</b>	2	<b>Sg</b>	2	<b>Bh</b>	2	<b>Hs</b>	2	<b>Mt</b>	2	<b>Ds</b>	2	<b>Rg</b>	2	<b>Cn</b>	2	Ununtrium	2	Ununquadium	2	Ununpentium	2	Ununhexium	2	Ununseptium	2	Ununoctium	2
87		88		104		105		106		107		108		109		110		111		112		113		114		115		116		117		118	
Francium		Radium		Rutherfordium		Dubnium		Seaborgium		Nielsbohrium		Hassium		Meitnerium		Darmstadtium		Roentgenium		Copernicium		Ununtrium		Ununquadium		Ununpentium		Ununhexium		Ununseptium		Ununoctium	

- væsker
- luftarter
- faste stoffer
- fremstillet i lab. ved kernereaktioner

138,9055	2	140,115	2	140,908	2	144,24	2	146,9151	2	150,36	2	151,965	2	157,25	2	158,9253	2	162,5	2	164,9303	2	167,26	2	168,9342	2	173,04	2	174,967	2
<b>La</b>	2	<b>Ce</b>	2	<b>Pr</b>	2	<b>Nd</b>	2	<b>Pm</b>	2	<b>Sm</b>	2	<b>Eu</b>	2	<b>Gd</b>	2	<b>Tb</b>	2	<b>Dy</b>	2	<b>Ho</b>	2	<b>Er</b>	2	<b>Tm</b>	2	<b>Yb</b>	2	<b>Lu</b>	2
57		58		59		60		61		62		63		64		65		66		67		68		69		70		71	
Lanthan		Cerium		Lanthan		Cerium		Promethium		Samarium		Europium		Gadolinium		Terbium		Dysprosium		Holmium		Erbium		Thulium		Ytterbium		Lutetium	
227,0278	2	232,0381	2	231,0358	2	238,0289	2	237,0482	2	244,0642	2	243,0614	2	247,0703	2	247,0703	2	251,0796	2	252,0892	2	257,0951	2	258,0986	2	259,1009	2	260,1053	2
<b>Ac</b>	2	<b>Th</b>	2	<b>Pa</b>	2	<b>U</b>	2	<b>Np</b>	2	<b>Pu</b>	2	<b>Am</b>	2	<b>Cm</b>	2	<b>Bk</b>	2	<b>Cf</b>	2	<b>Es</b>	2	<b>Fm</b>	2	<b>Md</b>	2	<b>No</b>	2	<b>Lr</b>	2
89		90		91		92		93		94		95		96		97		98		99		100		101		102		103	
Actinium		Thorium		Protactinium		Uran		Neptunium		Plutonium		Americium		Curium		Berkelium		Californium		Einsteinium		Fermium		Mendelevium		Nobelium		Lawrencium	