

DET PERIODISKE SYSTEM

Hovedgrupper

Eksempel

Grundstofnavn → Uran
 Atomnummer → 92 U
 Grundstofsymbolsymbol → U
 Smeltepunkt → $T_s = 1135^\circ\text{C}$
 Kogepunkt → $T_k = 4131^\circ\text{C}$
 Densitet → $d = 19,0\text{ g/cm}^3$
 Kun radioaktive atomer

Antal elektroner i de forskellige skaller

- Luftart
- Væske
- Fast stof
- Kunstigt fremstillet

Hovedgrupper

Perioder

1	1		2																		3		4		5		6		7		8					
1	Hydrogen 1 H (Brint) $T_s = -259^\circ\text{C}$ $T_k = -253^\circ\text{C}$ $d = 0,084\text{ g/L}$																				Helium 2 He $T_s = -269^\circ\text{C}$ $d = 0,17\text{ g/L}$															
2	Lithium 3 Li $T_s = 181^\circ\text{C}$ $T_k = 1342^\circ\text{C}$ $d = 0,53\text{ g/cm}^3$		Beryllium 4 Be $T_s = 1278^\circ\text{C}$ $T_k = 2471^\circ\text{C}$ $d = 1,85\text{ g/cm}^3$																		Bor 5 B $T_s = 2075^\circ\text{C}$ $T_k = 4000^\circ\text{C}$ $d = 2,34\text{ g/cm}^3$		Carbon 6 C (Kulstof) $T_s = 3550^\circ\text{C}$ $T_k = 4827^\circ\text{C}$ $d = 3,51\text{ g/cm}^3$		Nitrogen 7 N (Kvælstof) $T_s = -210^\circ\text{C}$ $T_k = -196^\circ\text{C}$ $d = 1,17\text{ g/L}$		Oxygen 8 O (ilt) $T_s = -219^\circ\text{C}$ $T_k = -183^\circ\text{C}$ $d = 1,33\text{ g/L}$		Fluor 9 F $T_s = -220^\circ\text{C}$ $T_k = -188^\circ\text{C}$ $d = 1,58\text{ g/L}$		Neon 10 Ne $T_s = -249^\circ\text{C}$ $T_k = -246^\circ\text{C}$ $d = 0,84\text{ g/L}$					
3	Natrium 11 Na $T_s = 97,7^\circ\text{C}$ $T_k = 883^\circ\text{C}$ $d = 0,97\text{ g/cm}^3$		Magnesium 12 Mg $T_s = 650^\circ\text{C}$ $T_k = 1090^\circ\text{C}$ $d = 1,74\text{ g/cm}^3$																		Aluminium 13 Al $T_s = 660^\circ\text{C}$ $T_k = 2519^\circ\text{C}$ $d = 2,70\text{ g/cm}^3$		Silicium 14 Si $T_s = 1410^\circ\text{C}$ $T_k = 3265^\circ\text{C}$ $d = 2,33\text{ g/cm}^3$		Phosphor 15 P $T_s = 44,2^\circ\text{C}$ $T_k = 280^\circ\text{C}$ $d = 2,34\text{ g/cm}^3$		Svovl 16 S $T_s = 119^\circ\text{C}$ $T_k = 445^\circ\text{C}$ $d = 2,07\text{ g/cm}^3$		Chlor 17 Cl $T_s = -101^\circ\text{C}$ $T_k = -34^\circ\text{C}$ $d = 2,95\text{ g/L}$		Argon 18 Ar $T_s = -189^\circ\text{C}$ $T_k = -186^\circ\text{C}$ $d = 1,66\text{ g/L}$					
4	Kalium 19 K $T_s = 63,4^\circ\text{C}$ $T_k = 759^\circ\text{C}$ $d = 0,86\text{ g/cm}^3$		Calcium 20 Ca $T_s = 842^\circ\text{C}$ $T_k = 1484^\circ\text{C}$ $d = 1,54\text{ g/cm}^3$		Scandium 21 Sc $T_s = 1541^\circ\text{C}$ $T_k = 2830^\circ\text{C}$ $d = 2,99\text{ g/cm}^3$		Titan 22 Ti $T_s = 1668^\circ\text{C}$ $T_k = 3287^\circ\text{C}$ $d = 4,51\text{ g/cm}^3$		Vanadium 23 V $T_s = 1910^\circ\text{C}$ $T_k = 3407^\circ\text{C}$ $d = 6,1\text{ g/cm}^3$		Chrom 24 Cr $T_s = 1907^\circ\text{C}$ $T_k = 2671^\circ\text{C}$ $d = 7,19\text{ g/cm}^3$		Mangan 25 Mn $T_s = 1246^\circ\text{C}$ $T_k = 2061^\circ\text{C}$ $d = 7,44\text{ g/cm}^3$		Jern 26 Fe $T_s = 1540^\circ\text{C}$ $T_k = 2760^\circ\text{C}$ $d = 7,87\text{ g/cm}^3$		Cobalt 27 Co $T_s = 1495^\circ\text{C}$ $T_k = 2927^\circ\text{C}$ $d = 8,85\text{ g/cm}^3$		Nikkel 28 Ni $T_s = 1455^\circ\text{C}$ $T_k = 2913^\circ\text{C}$ $d = 8,91\text{ g/cm}^3$		Kobber 29 Cu $T_s = 1085^\circ\text{C}$ $T_k = 2562^\circ\text{C}$ $d = 8,96\text{ g/cm}^3$		Zink 30 Zn $T_s = 420^\circ\text{C}$ $T_k = 907^\circ\text{C}$ $d = 7,13\text{ g/cm}^3$		Gallium 31 Ga $T_s = 29,8^\circ\text{C}$ $T_k = 2204^\circ\text{C}$ $d = 5,91\text{ g/cm}^3$		Germanium 32 Ge $T_s = 938^\circ\text{C}$ $T_k = 2833^\circ\text{C}$ $d = 5,32\text{ g/cm}^3$		Arsen 33 As T_s : sublimerer ved 614°C $T_k = 578^\circ\text{C}$ $d = 5,78\text{ g/cm}^3$		Selen 34 Se $T_s = 221^\circ\text{C}$ $T_k = 685^\circ\text{C}$ $d = 4,79\text{ g/cm}^3$		Brom 35 Br $T_s = -7,2^\circ\text{C}$ $T_k = 58,8^\circ\text{C}$ $d = 3,12\text{ g/cm}^3$		Krypton 36 Kr $T_s = -157^\circ\text{C}$ $T_k = -153^\circ\text{C}$ $d = 3,48\text{ g/L}$	
5	Rubidium 37 Rb $T_s = 38,9^\circ\text{C}$ $T_k = 688^\circ\text{C}$ $d = 1,53\text{ g/cm}^3$		Strontium 38 Sr $T_s = 777^\circ\text{C}$ $T_k = 1382^\circ\text{C}$ $d = 2,54\text{ g/cm}^3$		Yttrium 39 Y $T_s = 1526^\circ\text{C}$ $T_k = 3336^\circ\text{C}$ $d = 4,47\text{ g/cm}^3$		Zirkonium 40 Zr $T_s = 1855^\circ\text{C}$ $T_k = 4409^\circ\text{C}$ $d = 6,51\text{ g/cm}^3$		Niobium 41 Nb $T_s = 2477^\circ\text{C}$ $T_k = 4744^\circ\text{C}$ $d = 8,57\text{ g/cm}^3$		Molybden 42 Mo $T_s = 2623^\circ\text{C}$ $T_k = 4639^\circ\text{C}$ $d = 10,2\text{ g/cm}^3$		Technetium 43 Tc* $T_s = 2157^\circ\text{C}$ $T_k = 4877^\circ\text{C}$ $d = 11,5\text{ g/cm}^3$		Ruthenium 44 Ru $T_s = 2310^\circ\text{C}$ $T_k = 4150^\circ\text{C}$ $d = 12,4\text{ g/cm}^3$		Rhodium 45 Rh $T_s = 1964^\circ\text{C}$ $T_k = 3695^\circ\text{C}$ $d = 12,4\text{ g/cm}^3$		Palladium 46 Pd $T_s = 1554^\circ\text{C}$ $T_k = 3125^\circ\text{C}$ $d = 12,0\text{ g/cm}^3$		Sølv 47 Ag $T_s = 962^\circ\text{C}$ $T_k = 2162^\circ\text{C}$ $d = 10,5\text{ g/cm}^3$		Cadmium 48 Cd $T_s = 321^\circ\text{C}$ $T_k = 767^\circ\text{C}$ $d = 8,65\text{ g/cm}^3$		Indium 49 In $T_s = 157^\circ\text{C}$ $T_k = 2072^\circ\text{C}$ $d = 7,31\text{ g/cm}^3$		Tin 50 Sn $T_s = 232^\circ\text{C}$ $T_k = 2602^\circ\text{C}$ $d = 7,3\text{ g/cm}^3$		Antimon 51 Sb $T_s = 631^\circ\text{C}$ $T_k = 1587^\circ\text{C}$ $d = 6,69\text{ g/cm}^3$		Tellur 52 Te $T_s = 450^\circ\text{C}$ $T_k = 988^\circ\text{C}$ $d = 6,24\text{ g/cm}^3$		Iod 53 I $T_s = 114^\circ\text{C}$ $T_k = 184^\circ\text{C}$ $d = 4,35\text{ g/cm}^3$		Xenon 54 Xe $T_s = -112^\circ\text{C}$ $T_k = -108^\circ\text{C}$ $d = 5,49\text{ g/L}$	
6	Caesium 55 Cs $T_s = 28,4^\circ\text{C}$ $T_k = 671^\circ\text{C}$ $d = 1,90\text{ g/cm}^3$		Barium 56 Ba $T_s = 727^\circ\text{C}$ $T_k = 1640^\circ\text{C}$ $d = 3,59\text{ g/cm}^3$		Hafnium 72 Hf $T_s = 2233^\circ\text{C}$ $T_k = 4603^\circ\text{C}$ $d = 13,3\text{ g/cm}^3$		Tantal 73 Ta $T_s = 3017^\circ\text{C}$ $T_k = 5458^\circ\text{C}$ $d = 16,7\text{ g/cm}^3$		Wolfram 74 W $T_s = 3422^\circ\text{C}$ $T_k = 5555^\circ\text{C}$ $d = 19,3\text{ g/cm}^3$		Rhenium 75 Re $T_s = 3186^\circ\text{C}$ $T_k = 5596^\circ\text{C}$ $d = 21,0\text{ g/cm}^3$		Osmium 76 Os $T_s = 3033^\circ\text{C}$ $T_k = 5012^\circ\text{C}$ $d = 22,58\text{ g/cm}^3$		Iridium 77 Ir $T_s = 2446^\circ\text{C}$ $T_k = 4428^\circ\text{C}$ $d = 22,25\text{ g/cm}^3$		Platin 78 Pt $T_s = 1768^\circ\text{C}$ $T_k = 3825^\circ\text{C}$ $d = 21,45\text{ g/cm}^3$		Guld 79 Au $T_s = 1064^\circ\text{C}$ $T_k = 2856^\circ\text{C}$ $d = 19,3\text{ g/cm}^3$		Kviksølv 80 Hg $T_s = -38,8^\circ\text{C}$ $T_k = 357^\circ\text{C}$ $d = 13,6\text{ g/cm}^3$		Thallium 81 Tl $T_s = 304^\circ\text{C}$ $T_k = 1473^\circ\text{C}$ $d = 11,9\text{ g/cm}^3$		Bly 82 Pb $T_s = 327^\circ\text{C}$ $T_k = 1749^\circ\text{C}$ $d = 11,3\text{ g/cm}^3$		Bismuth 83 Bi* $T_s = 271^\circ\text{C}$ $T_k = 1564^\circ\text{C}$ $d = 9,8\text{ g/cm}^3$		Polonium 84 Po* $T_s = 254^\circ\text{C}$ $T_k = 962^\circ\text{C}$ $d = 9,2\text{ g/cm}^3$		Astat 85 At* $T_s = 302^\circ\text{C}$ $T_k = 350^\circ\text{C}$		Radon 86 Rn* $T_s = -71^\circ\text{C}$ $T_k = -62^\circ\text{C}$ $d = 9,2\text{ g/L}$			
7	Francium 87 Fr* $T_s = 27^\circ\text{C}$ $T_k = 677^\circ\text{C}$		Radium 88 Ra* $T_s = 700^\circ\text{C}$ $T_k = 1140^\circ\text{C}$ $d = 5,0\text{ g/cm}^3$		Rutherfordium 104 Rf* $T_s = 2233^\circ\text{C}$ $T_k = 4603^\circ\text{C}$ $d = 13,3\text{ g/cm}^3$		Dubnium 105 Db* $T_s = 3017^\circ\text{C}$ $T_k = 5458^\circ\text{C}$ $d = 16,7\text{ g/cm}^3$		Seaborgium 106 Sg* $T_s = 3422^\circ\text{C}$ $T_k = 5555^\circ\text{C}$ $d = 19,3\text{ g/cm}^3$		Bohrium 107 Bh* $T_s = 3186^\circ\text{C}$ $T_k = 5596^\circ\text{C}$ $d = 21,0\text{ g/cm}^3$		Hassium 108 Hs* $T_s = 3033^\circ\text{C}$ $T_k = 5012^\circ\text{C}$ $d = 22,58\text{ g/cm}^3$		Meitnerium 109 Mt* $T_s = 2446^\circ\text{C}$ $T_k = 4428^\circ\text{C}$ $d = 22,25\text{ g/cm}^3$		Darmstadtium 110 Ds* $T_s = 1768^\circ\text{C}$ $T_k = 3825^\circ\text{C}$ $d = 21,45\text{ g/cm}^3$		Roentgenium 111 Rg* $T_s = 1064^\circ\text{C}$ $T_k = 2856^\circ\text{C}$ $d = 19,3\text{ g/cm}^3$		Copernicium 112 Cn* $T_s = -38,8^\circ\text{C}$ $T_k = 357^\circ\text{C}$ $d = 13,6\text{ g/cm}^3$		Ununtrium 113 Uut* $T_s = 304^\circ\text{C}$ $T_k = 1473^\circ\text{C}$ $d = 11,9\text{ g/cm}^3$		Flerovium 114 Fl* $T_s = 327^\circ\text{C}$ $T_k = 1749^\circ\text{C}$ $d = 11,3\text{ g/cm}^3$		Ununpentium 115 Uup* $T_s = 271^\circ\text{C}$ $T_k = 1564^\circ\text{C}$ $d = 9,8\text{ g/cm}^3$		Livermorium 116 Lv* $T_s = 254^\circ\text{C}$ $T_k = 962^\circ\text{C}$ $d = 9,2\text{ g/cm}^3$		Ununseptium 117 Uus* $T_s = 302^\circ\text{C}$ $T_k = 350^\circ\text{C}$		Ununoctium 118 Uuo* $T_s = -71^\circ\text{C}$ $T_k = -62^\circ\text{C}$ $d = 9,2\text{ g/L}$			

Undergrupper

Ikke-metaller

Metaller

Lanthan 57 La $T_s = 920^\circ\text{C}$ $T_k = 3455^\circ\text{C}$ $d = 6,17\text{ g/cm}^3$	Cerium 58 Ce $T_s = 799^\circ\text{C}$ $T_k = 3424^\circ\text{C}$ $d = 6,7\text{ g/cm}^3$	Praseodym 59 Pr $T_s = 931^\circ\text{C}$ $T_k = 3510^\circ\text{C}$ $d = 6,78\text{ g/cm}^3$	Neodym 60 Nd $T_s = 1016^\circ\text{C}$ $T_k = 3066^\circ\text{C}$ $d = 7,00\text{ g/cm}^3$	Promethium 61 Pm* $T_s = 1042^\circ\text{C}$ $T_k = 3000^\circ\text{C}$ $d = 7,3\text{ g/cm}^3$	Samarium 62 Sm $T_s = 1072^\circ\text{C}$ $T_k = 1790^\circ\text{C}$ $d = 7,54\text{ g/cm}^3$	Europium 63 Eu $T_s = 822^\circ\text{C}$ $T_k = 1596^\circ\text{C}$ $d = 5,25\text{ g/cm}^3$	Gadolinium 64 Gd $T_s = 1314^\circ\text{C}$ $T_k = 3264^\circ\text{C}$ $d = 7,87\text{ g/cm}^3$	Terbium 65 Tb $T_s = 1359^\circ\text{C}$ $T_k = 3221^\circ\text{C}$ $d = 8,25\text{ g/cm}^3$	Dysprosium 66 Dy $T_s = 1411^\circ\text{C}$ $T_k = 2561^\circ\text{C}$ $d = 8,6\text{ g/cm}^3$	Holmium 67 Ho $T_s = 1472^\circ\text{C}$ $T_k = 2694^\circ\text{C}$ $d = 8,80\text{ g/cm}^3$	Erbium 68 Er $T_s = 1529^\circ\text{C}$ $T_k = 2862^\circ\text{C}$ $d = 9,07\text{ g/cm}^3$	Thulium 69 Tm $T_s = 1545^\circ\text{C}$ $T_k = 1946^\circ\text{C}$ $d = 9,32\text{ g/cm}^3$	Ytterbium 70 Yb $T_s = 824^\circ\text{C}$ $T_k = 1194^\circ\text{C}$ $d = 6,97\text{ g/cm}^3$	Lutetium 71 Lu $T_s = 1663^\circ\text{C}$ $T_k = 3393^\circ\text{C}$ $d = 9,84\text{ g/cm}^3$
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Actinium 89 Ac* $T_s = 1051^\circ\text{C}$ $T_k = 3200^\circ\text{C}$ $d = 10,1\text{ g/cm}^3$	Thorium 90 Th* $T_s = 1750^\circ\text{C}$ $T_k = 4780^\circ\text{C}$ $d = 11,7\text{ g/cm}^3$	Protactinium 91 Pa* $T_s = 1572^\circ\text{C}$ $T_k = 4000^\circ\text{C}$ $d = 15,4\text{ g/cm}^3$	Uran 92 U* $T_s = 1135^\circ\text{C}$ $T_k = 4131^\circ\text{C}$ $d = 19,0\text{ g/cm}^3$	Neptunium 93 Np* $T_s = 640^\circ\text{C}$ $T_k = 3900^\circ\text{C}$ $d = 20,4\text{ g/cm}^3$	Plutonium 94 Pu* $T_s = 640^\circ\text{C}$ $T_k = 3230^\circ\text{C}$ $d = 19,8\text{ g/cm}^3$	Americium 95 Am* $T_s = 994^\circ\text{C}$ $T_k = 2600^\circ\text{C}$ $d = 13,7\text{ g/cm}^3$	Curium 96 Cm* $T_s = 1345^\circ\text{C}$ $T_k = 2700^\circ\text{C}$ $d = 13,3\text{ g/cm}^3$	Berkelium 97 Bk* $T_s = 1050^\circ\text{C}$	Californium 98 Cf* $T_s = 900^\circ\text{C}$	Einsteinium 99 Es* $T_s = 860^\circ\text{C}$	Fermium 100 Fm* $T_s = 1527^\circ\text{C}$	Mendelevium 101 Md* $T_s = 867^\circ\text{C}$	Nobelium 102 No* $T_s = 867^\circ\text{C}$	Lawrencium 103 Lr* $T_s = 1627^\circ\text{C}$
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