

Metaller - Spændingsrækken

HOVEDGRUPPE		HOVEDGRUPPE								Periode	
I	II	III	IV	V	VI	VII	VIII				
1 H Hydrogen										1 He Helium	
2 Li Lithium	3 Be Beryllium									2 Ne Neon	
3 Na Natrium	4 Mg Magnesium									3 Ar Argon	
11 K Kalium	12 Ca Calcium	13 B Bor	14 Si Silicium	15 P Fosfor	16 S Svovl	17 Cl Chlor	18 Ar Argon			4 Kr Krypton	
19 Rb Rubidium	20 Sr Strontium	21 Sc Scandium	22 Ti Titan	23 V Vanadium	24 Cr Chrom	25 Mn Mangan	26 Fe Jern	27 Co Cobolt	28 Ni Nikkel	29 Cu Kobber	30 Zn Zink
37 Rb Rubidium	38 Sr Strontium	39 Y Yttrium	40 Zr Zirkonium	41 Nb Niobium	42 Mo Molybdæn	43 Tc Technetium	44 Ru Ruthenium	45 Rh Rhodium	46 Pd Palladium	47 Ag Sølv	48 Cd Cadmium
55 Cs Cæsium	56 Ba Barium	57 La Lanthan	58 Ce Cærium	59 Pr Præmodym	60 Nd Neodym	61 Pm Prometium	62 Sm Samarium	63 Eu Europium	64 Gd Gadolinium	65 Tb Terbium	66 Dy Dysprosium
87 Fr Francium	88 Ra Radium	89 Ac Actinium	90 Th Thorium	91 Pa Protactinium	92 U Uran	93 Np Neptunium	94 Pu Plutonium	95 Am Amerium	96 Cm Curium	97 Bk Berkelium	98 Cf Californium

Atom-masse
Kemisk symbol
Kemisk navn
Atomnummer

Radioaktivt

Antal elektroner i de forskellige skaller

Til nr. 57 slutter sig nr. 58-71 (de 14 lanthanoide):

58 Ce Cærium	59 Pr Præmodym	60 Nd Neodym	61 Pm Prometium	62 Sm Samarium	63 Eu Europium	64 Gd Gadolinium	65 Tb Terbium	66 Dy Dysprosium	67 Ho Holmium	68 Er Erbium	69 Tm Thulium	70 Yb Ytterbium	71 Lu Lutetium
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Til nr. 89 slutter sig nr. 90-103 (de 14 actinoide):

90 Th Thorium	91 Pa Protactinium	92 U Uran	93 Np Neptunium	94 Pu Plutonium	95 Am Amerium	96 Cm Curium	97 Bk Berkelium	98 Cf Californium	99 Es Einsteinium	100 Fm Fermium	101 Md Mendelevium	102 No Nobelium	103 Lw Lawrencium
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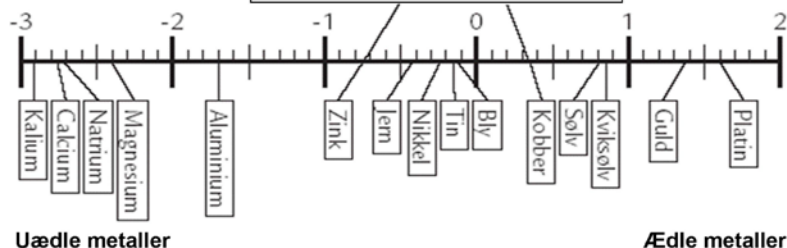
gasarter

Elektroreaktion

Normalpotential
 E° , volt

$\text{Au} \rightleftharpoons \text{Au}^{3+} + 3e^-$	+ 1,42
$2\text{Cr}^{3+} + 7\text{H}_2\text{O} \rightleftharpoons \text{Cr}_2\text{O}_7^{2-} + 14\text{H}^+ + 6e^-$	+ 1,36
$2\text{Cl}^- \rightleftharpoons \text{Cl}_2 + 2e^-$	+ 1,36
$2\text{H}_2\text{O} \rightleftharpoons \text{O}_2 + 4\text{H}^+ + 4e^-$	+ 1,23
$\text{Ag} \rightleftharpoons \text{Ag}^+ + e^-$	+ 0,80
$\text{Cu} \rightleftharpoons \text{Cu}^+ + e^-$	+ 0,52
$\text{Cu} \rightleftharpoons \text{Cu}^{2+} + 2e^-$	+ 0,34
$\frac{1}{2}\text{H}_2 \rightleftharpoons \text{H}^+ + e^-$	0
$\text{Pb} \rightleftharpoons \text{Pb}^{2+} + 2e^-$	- 0,13
$\text{Sn} \rightleftharpoons \text{Sn}^{2+} + 2e^-$	- 0,14
$\text{Ni} \rightleftharpoons \text{Ni}^{2+} + 2e^-$	- 0,23
$\text{Co} \rightleftharpoons \text{Co}^{2+} + 2e^-$	- 0,27
$\text{Cd} \rightleftharpoons \text{Cd}^{2+} + 2e^-$	- 0,40
$\text{Fe} \rightleftharpoons \text{Fe}^{2+} + 2e^-$	- 0,44
$\text{Cr} \rightleftharpoons \text{Cr}^{3+} + 3e^-$	- 0,71
$\text{Zn} \rightleftharpoons \text{Zn}^{2+} + 2e^-$	- 0,76
$\text{Mn} \rightleftharpoons \text{Mn}^{2+} + 2e^-$	- 1,05
$\text{Al} \rightleftharpoons \text{Al}^{3+} + 3e^-$	- 1,66
$\text{Ti} \rightleftharpoons \text{Ti}^{2+} + 2e^-$	- 1,75
$\text{Mg} \rightleftharpoons \text{Mg}^{2+} + 2e^-$	- 2,38
$\text{Na} \rightleftharpoons \text{Na}^+ + e^-$	- 2,71
$\text{Ca} \rightleftharpoons \text{Ca}^{2+} + 2e^-$	- 2,84
$\text{K} \rightleftharpoons \text{K}^+ + e^-$	- 2,92
$\text{Li} \rightleftharpoons \text{Li}^+ + e^-$	- 3,01

Spændingsforskel mellem zink og kobber



Uædle metaller

Ædle metaller