

# Układ okresowy

1																	18	
1	2												13	14	15	16	17	
1	<b>H</b> Wodór 1.008																	<b>He</b> Hel 4.003
2	<b>Li</b> Lit 6.94	<b>Be</b> Beryl 9.012											<b>B</b> Bor 10.811	<b>C</b> Węgiel 12.011	<b>N</b> Azot 14.007	<b>O</b> Tlen 15.999	<b>F</b> Fluor 18.998	<b>Ne</b> Neon 20.18
3	<b>Na</b> Sód 22.99	<b>Mg</b> Magnez 24.305											<b>Al</b> Glin 26.982	<b>Si</b> Krzem 28.086	<b>P</b> Fosfor 30.974	<b>S</b> Siarka 32.066	<b>Cl</b> Chlor 35.453	<b>Ar</b> Argon 39.948
4	<b>K</b> Potas 39.098	<b>Ca</b> Wapń 40.078	<b>Sc</b> Skand 44.956	<b>Ti</b> Tytan 47.867	<b>V</b> Wanad 50.942	<b>Cr</b> Chrom 51.996	<b>Mn</b> Mangan 54.938	<b>Fe</b> Żelazo 55.845	<b>Co</b> Kobalt 58.933	<b>Ni</b> Nikiel 58.693	<b>Cu</b> Miedź 63.546	<b>Zn</b> Cynk 65.341	<b>Ga</b> Gal 69.723	<b>Ge</b> German 72.64	<b>As</b> Arsen 74.922	<b>Se</b> Selen 78.96	<b>Br</b> Brom 79.904	<b>Kr</b> Krypton 83.8
5	<b>Rb</b> Rubid 85.468	<b>Sr</b> Stront 87.62	<b>Y</b> Itr 88.906	<b>Zr</b> Cyrkon 91.224	<b>Nb</b> Niob 92.906	<b>Mo</b> Molibden 95.94	<b>Tc</b> Technet 97.905	<b>Ru</b> Ruten 101.07	<b>Rh</b> Rod 102.906	<b>Pd</b> Pallad 106.42	<b>Ag</b> Srebro 107.868	<b>Cd</b> Kadm 112.411	<b>In</b> Ind 114.818	<b>Sn</b> Cyna 118.71	<b>Sb</b> Antymon 121.76	<b>Te</b> Tellur 127.6	<b>I</b> Jod 126.904	<b>Xe</b> Ksenon 131.293
6	<b>Cs</b> Cez 132.906	<b>Ba</b> Bar 137.327	<b>La</b> Lantan 138.906	<b>Hf</b> Hafn 178.49	<b>Ta</b> Tantal 180.948	<b>W</b> Wolfram 183.84	<b>Re</b> Ren 186.207	<b>Os</b> Osm 190.23	<b>Ir</b> Iryd 192.217	<b>Pt</b> Platyna 195.084	<b>Au</b> Złoto 196.967	<b>Hg</b> Rtęć 200.59	<b>Tl</b> Tal 204.383	<b>Pb</b> Ołów 207.2	<b>Bi</b> Bizmut 208.98	<b>Po</b> Astat 208.982	<b>At</b> Astat 209.987	<b>Rn</b> Radon 222.018
7	<b>Fr</b> Frans 223.02	<b>Ra</b> Rad 226.025	<b>Ac</b> Aktyn 227.028	<b>Rf</b> Rutherford 261.1	<b>Db</b> Dubn 268.1	<b>Sg</b> Seaborg 271.1	<b>Bh</b> Bohr 270.1	<b>Hs</b> Has 277.1	<b>Mt</b> Meitner 278.2	<b>Ds</b> Darmstadt 281.2	<b>Rg</b> Roentgen 281.2	<b>Cn</b> Kopernik 285	<b>Nh</b> Nihonium 286	<b>Fl</b> Flerowium 289	<b>Mc</b> Moscovium 289	<b>Lv</b> Livermorium 292	<b>Ts</b> Tennessine 294	<b>Og</b> Oganesson 294

Liczba atomowa → 23  
 Symbol pierwiastka → V  
 Nazwa pierwiastka → Wanad  
 Masa atomowa → 50.942  
 Wartościowość → 2,3,4,5

\* Lantanowce

57 <b>La</b> Lantan 138.906	58 <b>Ce</b> Cer 140.116	59 <b>Pr</b> Prazeodym 140.908	60 <b>Nd</b> Neodym 144.24	61 <b>Pm</b> Promet 144.913	62 <b>Sm</b> Samar 150.36	63 <b>Eu</b> Europ 151.25	64 <b>Gd</b> Gadolin 157.25	65 <b>Tb</b> Terb 158.926	66 <b>Dy</b> Dysproz 162.5	67 <b>Ho</b> Holm 164.93	68 <b>Er</b> Erb 167.259	69 <b>Tm</b> Terb 168.938	70 <b>Yb</b> Iterb 173.04	71 <b>Lu</b> Lutet 174.967
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\*\* Aktynowce

89 <b>Ac</b> Aktyn 227.028	90 <b>Th</b> Tor 232.038	91 <b>Pa</b> Protaktyn 231.036	92 <b>U</b> Uran 238.029	93 <b>Np</b> Neptun 237.048	94 <b>Pu</b> Pluton 244.064	95 <b>Am</b> Ameryk 243.061	96 <b>Cm</b> Kjur 247.07	97 <b>Bk</b> Berkel 247.07	98 <b>Cf</b> Kaliforn 251.08	99 <b>Es</b> Einstein 252.088	100 <b>Fm</b> Ferm 257.095	101 <b>Md</b> Mendelew 258.098	102 <b>No</b> Nobel 259.101	103 <b>Lr</b> Lorens 262.11
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LEGENDA

- metal alkaliczny
- metal ziem alkalicznych
- lantanowiec
- aktynowiec
- metal przejściowy
- metal bloku p
- półmetal
- niemetal
- gaz szlachetny