

# Vakiovaruste

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$$N_A = 6,022 \cdot 10^{23} \text{ mol}^{-1}$$

$$m_u = 1,661 \cdot 10^{-27} \text{ kg}$$

$$R = 8,314 \text{ J K}^{-1} \text{ mol}^{-1}$$

$$V_m = 22,41 \text{ dm}^3 \text{ mol}^{-1} \text{ (NTP)}$$

$$e = 1,602 \cdot 10^{-19} \text{ C}$$

$$F = 96\,485 \text{ A s mol}^{-1}$$

$$h = 6,626 \cdot 10^{-34} \text{ J s}$$

$$c = 2,998 \cdot 10^8 \text{ m s}^{-1}$$

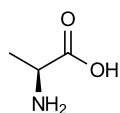
$$K_w = 1,0 \cdot 10^{-14} \text{ (25 } ^\circ\text{C)}$$

$$T/\text{K} = \theta/^\circ\text{C} + 273,15$$

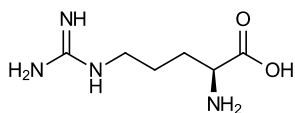
$$1 \text{ atm} = 101,325 \text{ kPa}$$

$$1 \text{ bar} = 10^5 \text{ Pa}$$

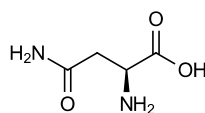
1	1																	18			
1	1 H 1,008	2														13	14	15	16	17	2 He 4,003
2	3 Li 6,94	4 Be 9,012											5 B 10,81	6 C 12,01	7 N 14,01	8 O 16,00	9 F 19,00	10 Ne 20,18			
3	11 Na 22,99	12 Mg 24,31	3	4	5	6	7	8	9	10	11	12	13 Al 26,98	14 Si 28,09	15 P 30,97	16 S 32,06	17 Cl 35,45	18 Ar 39,95			
4	19 K 39,10	20 Ca 40,08	21 Sc 44,96	22 Ti 47,87	23 V 50,94	24 Cr 52,00	25 Mn 54,94	26 Fe 55,85	27 Co 58,93	28 Ni 58,69	29 Cu 63,55	30 Zn 65,38	31 Ga 69,72	32 Ge 72,63	33 As 74,92	34 Se 78,97	35 Br 79,90	36 Kr 83,80			
5	37 Rb 85,47	38 Sr 87,62	39 Y 88,91	40 Zr 91,22	41 Nb 92,91	42 Mo 95,95	43 Tc	44 Ru 101,1	45 Rh 102,9	46 Pd 106,4	47 Ag 107,9	48 Cd 112,4	49 In 114,8	50 Sn 118,7	51 Sb 121,8	52 Te 127,6	53 I 126,9	54 Xe 131,3			
6	55 Cs 132,9	56 Ba 137,3	57-71	72 Hf 178,5	73 Ta 180,9	74 W 183,8	75 Re 186,2	76 Os 190,2	77 Ir 192,2	78 Pt 195,1	79 Au 197,0	80 Hg 200,6	81 Tl 204,4	82 Pb 207,2	83 Bi 209,0	84 Po	85 At	86 Rn			
7	87 Fr	88 Ra	89-103	104 Rf	105 Db	106 Sg	107 Bh	108 Hs	109 Mt	110 Ds	111 Rg	112 Cn	113 Nh	114 Fl	115 Mc	116 Lv	117 Ts	118 Og			
	57 La 138,9	58 Ce 140,1	59 Pr 140,9	60 Nd 144,2	61 Pm	62 Sm 150,4	63 Eu 152,0	64 Gd 157,3	65 Tb 158,9	66 Dy 162,5	67 Ho 164,9	68 Er 167,3	69 Tm 168,9	70 Yb 173,0	71 Lu 175,0						
	89 Ac	90 Th 232,0	91 Pa 231,0	92 U 238,0	93 Np	94 Pu	95 Am	96 Cm	97 Bk	98 Cf	99 Es	100 Fm	101 Md	102 No	103 Lr						



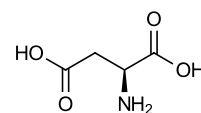
alaniini, Ala, A



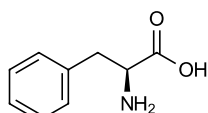
arginiini, Arg, R



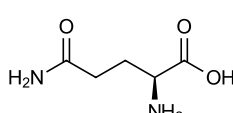
asparagiini, Asn, N



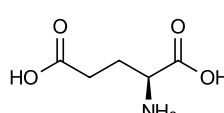
asparagiinihappo, Asp, D



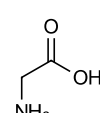
fenyylialaniini, Phe, F



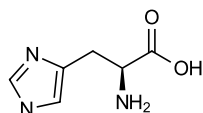
glutamiini, Gln, Q



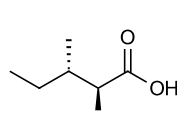
glutamiinihappo, Glu, E



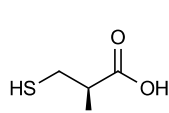
glysiini, Gly, G



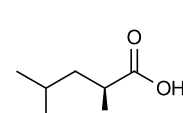
histidiini, His, H



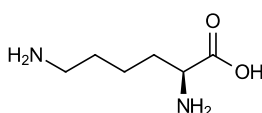
isoleusiini, Ile, I



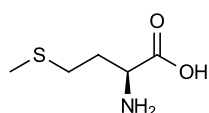
kysteiini, Cys, C



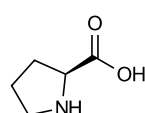
leusiini, Leu, L



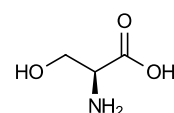
lysiini, Lys, K



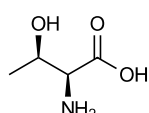
metioniini, Met, M



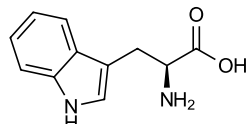
proliini, Pro, P



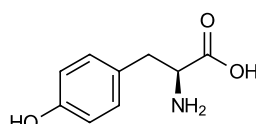
seriini, Ser, S



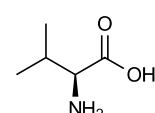
treoniini, Thr, T



tryptofaani, Trp, W



tyrosiini, Tyr, Y



valiini, Val, V