WWW Table of Atomic Masses

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The new WWW Table of Atomic Masses website is now available at http://ie.lbl.gov/TOI2003/MassSearch.asp. This service provides searchable access to the 2003 Atomic Mass Evaluation[1] by G. Audi, A.H. Wapstra, and C. Thibault. The mass data can be searched by odd-, even-, or all nuclei with selected atomic number, neutron number, or mass. The mass data have been stored in a Microsoft Access database, and the connection between the database and the Web server is Open DataBase Connectivity (ODBC). Output pages can be produced in a flexible way (high data awareness) by means of Active Server Pages (ASP). Figure 1 shows a sample table for A=12 masses.

[1]A.H. Wapstra, G. Audi, and C. Thibault, Nucl. Phys. A729, 129 (2003).

[2]G. Audi, A.H. Wapstra, and C. Thibault, Nucl. Phys. A729, 337 (2003).

Z	N	^{A}El	Atomic Mass μ u	Mass Excess keV	Binding Energy/A keV	Q(ß-) keV	Q(EC)- keV	Q(a) keV	S(n) keV	S(p) keV
3	9	^{12}Li	12053800(1100)#	50100(1000)#	3700(80)#	25000(1000)#			-1200(1000)#	
4	8	^{12}Be	12026921(16)	25077(15)	5720.8(13)	11708(15)		-8946(17)	3169(16)	23010(24)
5	7	^{12}B	12014352.1(15)	13368.9(14)	6631.26(12)	13368.9(14)		-10002.9(14)	3370.3(15)	14094(7)
6	6	^{12}C	12000000.00000	0.0	7680.144			-7366.59(4)	18721.7(10)	15956.9(4)
7	5	^{12}N	12018613.2(11)	17338.1(10)	6170.11(8)		17338.1(10)	-8008.3(14)	15040(50)	601.2(14)
8	4	^{12}O	12034405(20)	32048(18)	4879.1(15)		14710(18)	-5470(30)		-460(50)

Z	N	^{A}El	S(2n) keV	S(2p) keV	Q(2ß-) keV	Q(ECp) keV	Q(ß-n)- keV	Q(4ß-) keV	Q(d,a) keV	Q(p,a) keV
3	9	^{12}Li	-900(1000)#		36700(1000)#		21900(1000)#	32800(1000)#	12000(1000)#	14000(1000)#
4	8	^{12}Be	3673(15)	38310(70)	25077(15)		8337(15)	-6971(24)	2737(21)	4986(15)
5	7	^{12}B	14824.5(15)	34260(15)	-3969.2(17)	-34717(19)	-5352.8(17)		11473.0(15)	6885.3(15)
6	6	^{12}C	31841.3(4)	27184.6(4)	-32048(18)	-27463(6)	-32370(50)		-1339.9(4)	-7551.6(10)
7	5	^{12}N	37600(400)	9290.6(11)		1381.2(11)			12350.2(11)	-6708.4(24)
8	4	^{12}O		-1771(18)		14109(18)			4000(400)	

Figure 1. HTML table of A=12 masses.