

Periodic Table of the Elements in Landyne Suite

(Version 1a)

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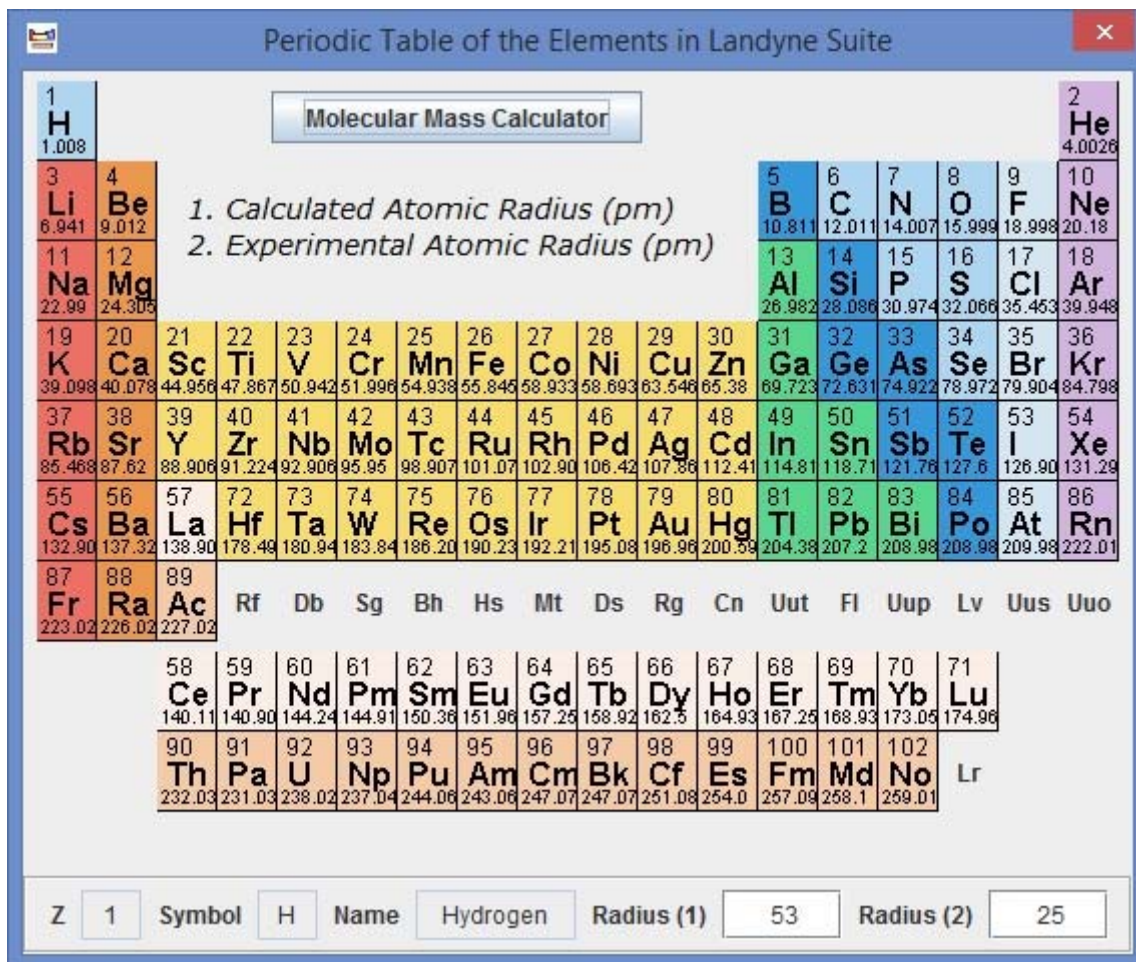
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1. Purpose

PTELS can be used as a Periodic able to check the element symbol and the Z number during the preparation of the new data for SVAT, SAED, PCED and others. It helps you to remember the names of elements. It provides the radii of the elements. It provides a tool to get the molecular mass.

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2. Feature



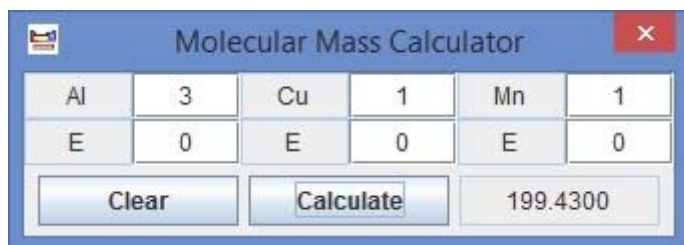
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Molecular Mass Calculator

1. Calculated Atomic Radius (pm)
2. Experimental Atomic Radius (pm)

1 H 1.008																	2 He 4.0026	
3 Li 6.941	4 Be 9.012											5 B 10.811	6 C 12.011	7 N 14.007	8 O 15.999	9 F 18.998	10 Ne 20.18	
11 Na 22.99	12 Mg 24.305											13 Al 26.982	14 Si 28.086	15 P 30.974	16 S 32.066	17 Cl 35.453	18 Ar 39.948	
19 K 39.098	20 Ca 40.078	21 Sc 44.956	22 Ti 47.867	23 V 50.942	24 Cr 51.996	25 Mn 54.938	26 Fe 55.845	27 Co 58.933	28 Ni 58.693	29 Cu 63.546	30 Zn 65.38	31 Ga 69.723	32 Ge 72.831	33 As 74.922	34 Se 78.972	35 Br 79.904	36 Kr 84.798	
37 Rb 85.468	38 Sr 87.62	39 Y 88.906	40 Zr 91.224	41 Nb 92.906	42 Mo 95.95	43 Tc 98.907	44 Ru 101.07	45 Rh 102.90	46 Pd 106.42	47 Ag 107.86	48 Cd 112.41	49 In 114.81	50 Sn 118.71	51 Sb 121.76	52 Te 127.6	53 I 126.90	54 Xe 131.29	
55 Cs 132.90	56 Ba 137.32	57 La 138.90	72 Hf 178.49	73 Ta 180.94	74 W 183.84	75 Re 186.20	76 Os 190.23	77 Ir 192.22	78 Pt 195.08	79 Au 196.96	80 Hg 200.59	81 Tl 204.38	82 Pb 207.2	83 Bi 208.98	84 Po 208.98	85 At 209.98	86 Rn 222.01	
87 Fr 223.02	88 Ra 226.02	89 Ac 227.02	Rf	Db	Sg	Bh	Hs	Mt	Ds	Rg	Cn	Uut	Fl	Uup	Lv	Uus	Uuo	
			58 Ce 140.11	59 Pr 140.90	60 Nd 144.24	61 Pm 144.91	62 Sm 150.36	63 Eu 151.96	64 Gd 157.25	65 Tb 158.92	66 Dy 162.5	67 Ho 164.93	68 Er 167.25	69 Tm 168.93	70 Yb 173.05	71 Lu 174.96		
			90 Th 232.03	91 Pa 231.03	92 U 238.02	93 Np 237.04	94 Pu 244.06	95 Am 243.06	96 Cm 247.07	97 Bk 247.07	98 Cf 251.08	99 Es 254.0	100 Fm 257.09	101 Md 258.1	102 No 259.01	Lr		
Z	1	Symbol	H	Name	Hydrogen	Radius (1)	53	Radius (2)	25									

Click on the selected element shows its name and radians driven from calculation and experiment.



Click Molecular Mass Calculator and then the elements and update the numbers to get the mass.

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3. Installation

Download landyne2.7z (or ptels.exe) from <http://www.unl.edu/ncmn-cfem/xzli/programs.htm>.

Decompress the landyne2.7z, a landyne (fold) is created, which includes

1. programs (subfold): all jar files, including ptels, and landyne.exe.
2. structures (subfold): you should save all structure data in this fold.
3. experiments (subfold): you should put the experimental electron diffraction patterns in this fold.
4. results (subfold): you should save all your results this fold and move/organize files in this fold.
5. documents: user manuals and specifications.

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4. Operation

Double click landyne.exe icon (or a shortcut of landyne.exe) to get the launcher. Single click the icon in the launcher to start each program. The launcher can be re-located and re-configured. Single click the exit to quit the launcher. If you get ptels.exe, just double click ptels.exe.

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5. Contact the author

Please contact the author (jlandyne@gmail.com or xzli@unl.edu). Suggestion and bug reports are welcome. Visit also <http://landyne.ueuo.com>

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