

Mendeleev Periodic table is wrong

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jcxxx@163.com**Abstract**

Using the stable number theory[3] we prove that there are only 92 stable elements in nature and obtain the correct valence electron configurations of the elements, the arrangement of valence electron configurations should be successive. In Mendeleev periodic table the elements (1-18, 29-36 and 46) have correct valence electron configurations and the elements (19-28, 37-45 and 47-92) have wrong valence electron configurations[10]. Periodic table is wrong.

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In studying the stability of the many-body problem we suggest two principles [1-9].

(1) The prime number principle. A prime number is irreducible in the integers, it seems therefore natural to associate it with the most stable subsystem. We prove that 1, 3, 5, 7, 11, 23, 47 are the most stable primes.

(2) The symmetric principle. The most stable configuration of two prime numbers is then stable symmetric system in nature. We prove that 2, 4, 6, 10, 14, 22, 46, 94 are the most stable even numbers. The stability can be defined as long life and existence in nature, and instability as short life or non-existence in nature.

In this paper by using the prime number principle and the symmetric principle we make the new electron configurations of the elements. Total quantum number n and orbital quantum number l determine the new electron configurations of the elements

Electron shells:	$n=1$	2	3	4	5	6...
	<i>K</i>	<i>L</i>	<i>M</i>	<i>N</i>	<i>O</i>	<i>P</i> ...

Electron subshells:	$2(2l+1)=2$	6	10	14	18	22...
	<i>s</i>	<i>p</i>	<i>d</i>	<i>f</i>	<i>g</i>	<i>h</i> ...

An atomic subshell that contains its full quota of electrons is said to be closed. A closed *s* subshell ($l=0$) holds two electrons, a closed *p* subshell ($l=1$) six electrons, a closed *d* subshell ($l=2$) ten electrons, a closed *f* subshell ($l=3$) fourteen electrons, these subshells are the most stable, a closed *g* subshell ($l=4$) eighteen electrons is the most unstable. Using the symmetric principle it has been proved the $2(2l+1)=2, 6, 10$ and 14 are stable and $2(2l+1)=18$ is unstable. The *s*, *p*, *d*, and *f* subshells are stable and the *g* subshell is unstable.

Table 1 shows the new valence electron configurations of the elements. From 1 to 92 of the atomic numbers every subshell is stable. It has been proved that the last stable element that occurs naturally is uranium with an atomic number of 92 and there are only 92 stable elements in nature. Since $5g$ subshell is unstable, the elements 93-110 are unstable. Since $5g$ is unstable, $6s, 6p, 6d, 6f, 6g$ and $6h$ subshells are unstable. Therefore the elements 111-182 are unstable. The island of stability around the element 114 does not exist.

Many of the chemical and physical properties of the elements are related to the number of electrons in the outermost shell, the electrons that are valence electrons in these atoms. In table 1 there are correct valence electron configurations of the elements. In Mendeleev periodic table the elements (1-18, 29-36 and 46) have correct valence electron configurations and the elements (19-28, 37-45 and 47-92) have wrong valence electron configurations. The periodic table is wrong.

Conclusion. D.I. Mendeleev periodic system of the elements is wrong. In table 1 s, p, d and f are stable subshells. Therefore the elements 1 to 92 are stable. In table 1 $5g$ is the unstable subshell. Therefore the elements 93 to 110 are unstable. Using the table 1, the prime number principle and the symmetric principle chemists study the chemical properties of the elements 1 to 92 and discover many of the new chemical compounds. Pythagoras believes that all things are numbers. But Jiang believes that all things are stable numbers [1-9].

Table 1. New Valence Electron Configuration of the Elements

Z	Sym	K			L			M			N				O				
		1s	2s	2p	3s	3p	3d	4s	4p	4d	4f	5s	5p	5d	5f	5g			
1	H	1																	
2	He	2																	
3	Li	2	1																
4	Be	2	2																
5	B	2	2	1															
6	C	2	2	2															
7	N	2	2	3															
8	O	2	2	4															
9	F	2	2	5															
10	Ne	2	2	6															
11	Na	2	2	6	1														
12	Mg	2	2	6	2														
13	Al	2	2	6	2	1													
14	Si	2	2	6	2	2													
15	P	2	2	6	2	3													
16	S	2	2	6	2	4													
17	Cl	2	2	6	2	5													
18	Ar	2	2	6	2	6													
19	K	2	2	6	2	6	1												
20	Ca	2	2	6	2	6	2												
21	Sc	2	2	6	2	6	3												
22	Ti	2	2	6	2	6	4												
23	V	2	2	6	2	6	5												
24	Cr	2	2	6	2	6	6												
25	Mn	2	2	6	2	6	7												
26	Fe	2	2	6	2	6	8												
27	Co	2	2	6	2	6	9												
28	Ni	2	2	6	2	6	10												
29	Cu	2	2	6	2	6	10	1											
30	Zn	2	2	6	2	6	10	2											
31	Ga	2	2	6	2	6	10	2	1										
32	Ge	2	2	6	2	6	10	2	2										
33	As	2	2	6	2	6	10	2	3										
34	Se	2	2	6	2	6	10	2	4										
35	Br	2	2	6	2	6	10	2	5										
36	Kr	2	2	6	2	6	10	2	6										
37	Rb	2	2	6	2	6	10	2	6	1									
38	Sr	2	2	6	2	6	10	2	6	2									
39	Y	2	2	6	2	6	10	2	6	3									
40	Zr	2	2	6	2	6	10	2	6	4									
41	Nb	2	2	6	2	6	10	2	6	5									
42	Mo	2	2	6	2	6	10	2	6	6									
43	Tc	2	2	6	2	6	10	2	6	7									
44	Ru	2	2	6	2	6	10	2	6	8									
45	Rh	2	2	6	2	6	10	2	6	9									
46	Pd	2	2	6	2	6	10	2	6	10									

Table 1. (Continued)

Z	Sym	K			L			M			N				O					
		1s	2s	2p	3s	3p	3d	4s	4p	4d	4f	5s	5p	5d	5f	5g				
47	Ag	2	2	6	2	6	10	2	6	10	1									
48	Cd	2	2	6	2	6	10	2	6	10	2									
49	In	2	2	6	2	6	10	2	6	10	3									
50	Sn	2	2	6	2	6	10	2	6	10	4									
51	Sb	2	2	6	2	6	10	2	6	10	5									
52	Te	2	2	6	2	6	10	2	6	10	6									
53	I	2	2	6	2	6	10	2	6	10	7									
54	Xe	2	2	6	2	6	10	2	6	10	8									
55	Cs	2	2	6	2	6	10	2	6	10	9									
56	Ba	2	2	6	2	6	10	2	6	10	10									
57	La	2	2	6	2	6	10	2	6	10	11									
58	Ce	2	2	6	2	6	10	2	6	10	12									
59	Pr	2	2	6	2	6	10	2	6	10	13									
60	Nd	2	2	6	2	6	10	2	6	10	14									
61	Pm	2	2	6	2	6	10	2	6	10	14	1								
62	Sm	2	2	6	2	6	10	2	6	10	14	2								
63	Eu	2	2	6	2	6	10	2	6	10	14	2	1							
64	Gd	2	2	6	2	6	10	2	6	10	14	2	2							
65	Tb	2	2	6	2	6	10	2	6	10	14	2	3							
66	Dy	2	2	6	2	6	10	2	6	10	14	2	4							
67	Ho	2	2	6	2	6	10	2	6	10	14	2	5							
68	Er	2	2	6	2	6	10	2	6	10	14	2	6							
69	Tm	2	2	6	2	6	10	2	6	10	14	2	6	1						
70	Yb	2	2	6	2	6	10	2	6	10	14	2	6	2						
71	Lu	2	2	6	2	6	10	2	6	10	14	2	6	3						
72	Hf	2	2	6	2	6	10	2	6	10	14	2	6	4						
73	Ta	2	2	6	2	6	10	2	6	10	14	2	6	5						
74	W	2	2	6	2	6	10	2	6	10	14	2	6	6						
75	Re	2	2	6	2	6	10	2	6	10	14	2	6	7						
76	Os	2	2	6	2	6	10	2	6	10	14	2	6	8						
77	Ir	2	2	6	2	6	10	2	6	10	14	2	6	9						
78	Pt	2	2	6	2	6	10	2	6	10	14	2	6	10						
79	Au	2	2	6	2	6	10	2	6	10	14	2	6	10	1					
80	Hg	2	2	6	2	6	10	2	6	10	14	2	6	10	2					
81	Tl	2	2	6	2	6	10	2	6	10	14	2	6	10	3					
82	Pb	2	2	6	2	6	10	2	6	10	14	2	6	10	4					
83	Bi	2	2	6	2	6	10	2	6	10	14	2	6	10	5					
84	Po	2	2	6	2	6	10	2	6	10	14	2	6	10	6					
85	At	2	2	6	2	6	10	2	6	10	14	2	6	10	7					
86	Rn	2	2	6	2	6	10	2	6	10	14	2	6	10	8					
87	Fr	2	2	6	2	6	10	2	6	10	14	2	6	10	9					
88	Ra	2	2	6	2	6	10	2	6	10	14	2	6	10	10					
89	Ac	2	2	6	2	6	10	2	6	10	14	2	6	10	11					
90	Th	2	2	6	2	6	10	2	6	10	14	2	6	10	12					
91	Pa	2	2	6	2	6	10	2	6	10	14	2	6	10	13					
92	U	2	2	6	2	6	10	2	6	10	14	2	6	10	14					

Note. s,p,d,f,subshells are stable. Therefore elements 1-92 are stable.

Table 1.(Continued)

Z	Sym	K			L			M			N				O				
		1s	2s	2p	3s	3p	3d	4s	4p	4d	4f	5s	5p	5d	5f	5g			
93	Np	2	2	6	2	6	10	2	6	10	14	2	6	10	14	1			
94	Pu	2	2	6	2	6	10	2	6	10	14	2	6	10	14	2			
95	Am	2	2	6	2	6	10	2	6	10	14	2	6	10	14	3			
96	Cm	2	2	6	2	6	10	2	6	10	14	2	6	10	14	4			
97	Bk	2	2	6	2	6	10	2	6	10	14	2	6	10	14	5			
98	Cf	2	2	6	2	6	10	2	6	10	14	2	6	10	14	6			
99	Es	2	2	6	2	6	10	2	6	10	14	2	6	10	14	7			
100	Fm	2	2	6	2	6	10	2	6	10	14	2	6	10	14	8			
101	Md	2	2	6	2	6	10	2	6	10	14	2	6	10	14	9			
102	No	2	2	6	2	6	10	2	6	10	14	2	6	10	14	10			
103	Lr	2	2	6	2	6	10	2	6	10	14	2	6	10	14	11			
104	Rf	2	2	6	2	6	10	2	6	10	14	2	6	10	14	12			
105	Db	2	2	6	2	6	10	2	6	10	14	2	6	10	14	13			
106	Sg	2	2	6	2	6	10	2	6	10	14	2	6	10	14	14			
107	Bh	2	2	6	2	6	10	2	6	10	14	2	6	10	14	15			
108	Hs	2	2	6	2	6	10	2	6	10	14	2	6	10	14	16			
109	Mt	2	2	6	2	6	10	2	6	10	14	2	6	10	14	17			
110	Ds	2	2	6	2	6	10	2	6	10	14	2	6	10	14	18			

Note.5g subshell is unstable.Therefore the elements 93-110 are unstable and manmade.

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TABLE 2. WRONG MENDELEEV PERIODIC VALENCE ELECTRON CONFIGURATIONS OF THE ELEMENTS

Num.	Symbol	K	L	M	N	O	P	Q														
1. Period		1s	2s	2p	3s	3p	3d	4s	4p	4d	4f	5s	5p	5d	5f	6s	6p	6d	6f	7s	7p	
1	<u>H</u>	1																				
2	<u>He</u>	2																				
2. Period		1s	2s	2p	3s	3p	3d	4s	4p	4d	4f	5s	5p	5d	5f	6s	6p	6d	6f	7s	7p	
3	<u>Li</u>	2	1																			
4	<u>Be</u>	2	2																			
5	<u>B</u>	2	2	1																		
6	<u>C</u>	2	2	2																		
7	<u>N</u>	2	2	3																		
8	<u>O</u>	2	2	4																		
9	<u>F</u>	2	2	5																		
10	<u>Ne</u>	2	2	6																		
3. Period		1s	2s	2p	3s	3p	3d	4s	4p	4d	4f	5s	5p	5d	5f	6s	6p	6d	6f	7s	7p	
11	<u>Na</u>	2	2	6	1																	
12	<u>Mg</u>	2	2	6	2																	
13	<u>Al</u>	2	2	6	2	1																
14	<u>Si</u>	2	2	6	2	2																
15	<u>P</u>	2	2	6	2	3																
16	<u>S</u>	2	2	6	2	4																
17	<u>Cl</u>	2	2	6	2	5																
18	<u>Ar</u>	2	2	6	2	6																
4. Period		1s	2s	2p	3s	3p	3d	4s	4p	4d	4f	5s	5p	5d	5f	6s	6p	6d	6f	7s		
19	<u>K</u>	2	2	6	2	6	..	1														
20	<u>Ca</u>	2	2	6	2	6	..	2														
21	<u>Sc</u>	2	2	6	2	6	1	2														
22	<u>Ti</u>	2	2	6	2	6	2	2														
23	<u>V</u>	2	2	6	2	6	3	2														
24	<u>Cr</u>	2	2	6	2	6	5	1														
25	<u>Mn</u>	2	2	6	2	6	5	2														

26	Fe	2	2	6	2	6	6	2													
27	Co	2	2	6	2	6	7	2													
28	Ni	2	2	6	2	6	8	2													
29	Cu	2	2	6	2	6	10	1													
30	Zn	2	2	6	2	6	10	2													
31	Ga	2	2	6	2	6	10	2	1												
32	Ge	2	2	6	2	6	10	2	2												
33	As	2	2	6	2	6	10	2	3												
34	Se	2	2	6	2	6	10	2	4												
35	Br	2	2	6	2	6	10	2	5												
36	Kr	2	2	6	2	6	10	2	6												
5. Period	1s	2s	2p	3s	3p	3d	4s	4p	4d	4f	5s	5p	5d	5f	6s	6p	6d	6f	7s	7p	
37	Rb	2	2	6	2	6	10	2	6	..	..	1									
38	Sr	2	2	6	2	6	10	2	6	..	..	2									
39	Y	2	2	6	2	6	10	2	6	1	..	2									
40	Zr	2	2	6	2	6	10	2	6	2	..	2									
41	Nb	2	2	6	2	6	10	2	6	4	..	1									
42	Mo	2	2	6	2	6	10	2	6	5	..	1									
43	Tc	2	2	6	2	6	10	2	6	6	..	1									
44	Ru	2	2	6	2	6	10	2	6	7	..	1									
45	Rh	2	2	6	2	6	10	2	6	8	..	1									
46	Pd	2	2	6	2	6	10	2	6	10	..	..							
47	Ag	2	2	6	2	6	10	2	6	10	..	1									
48	Cd	2	2	6	2	6	10	2	6	10	..	2									
49	In	2	2	6	2	6	10	2	6	10	..	2	1								
50	Sn	2	2	6	2	6	10	2	6	10	..	2	2								
51	Sb	2	2	6	2	6	10	2	6	10	..	2	3								
52	Te	2	2	6	2	6	10	2	6	10	..	2	4								
53	I	2	2	6	2	6	10	2	6	10	..	2	5								
54	Xe	2	2	6	2	6	10	2	6	10	..	2	6								
6. Period	1s	2s	2p	3s	3p	3d	4s	4p	4d	4f	5s	5p	5d	5f	6s	6p	6d	6f	7s	7p	
55	Cs	2	2	6	2	6	10	2	6	10	..	2	6	..	..	1					
56	Ba	2	2	6	2	6	10	2	6	10	..	2	6	..	..	2					
57	La	2	2	6	2	6	10	2	6	10	..	2	6	1	..	2					
58	Ce	2	2	6	2	6	10	2	6	10	2	2	6	..	..	2					
59	Pr	2	2	6	2	6	10	2	6	10	3	2	6	..	..	2					

60	Nd	2	2	6	2	6	10	2	6	10	4	2	6	..	..	2						
61	Pm	2	2	6	2	6	10	2	6	10	5	2	6	..	..	2						
62	Sm	2	2	6	2	6	10	2	6	10	6	2	6	..	..	2						
63	Eu	2	2	6	2	6	10	2	6	10	7	2	6	..	..	2						
64	Gd	2	2	6	2	6	10	2	6	10	7	2	6	1	..	2						
65	Tb	2	2	6	2	6	10	2	6	10	9	2	6	..	..	2						
66	Dy	2	2	6	2	6	10	2	6	10	10	2	6	..	..	2						
67	Ho	2	2	6	2	6	10	2	6	10	11	2	6	..	..	2						
68	Er	2	2	6	2	6	10	2	6	10	12	2	6	..	..	2						
69	Tm	2	2	6	2	6	10	2	6	10	13	2	6	..	..	2						
70	Yb	2	2	6	2	6	10	2	6	10	14	2	6	..	..	2						
71	Lu	2	2	6	2	6	10	2	6	10	14	2	6	1	..	2						
72	Hf	2	2	6	2	6	10	2	6	10	14	2	6	2	..	2						
73	Ta	2	2	6	2	6	10	2	6	10	14	2	6	3	..	2						
74	W	2	2	6	2	6	10	2	6	10	14	2	6	4	..	2						
75	Re	2	2	6	2	6	10	2	6	10	14	2	6	5	..	2						
76	Os	2	2	6	2	6	10	2	6	10	14	2	6	6	..	2						
77	Ir	2	2	6	2	6	10	2	6	10	14	2	6	7	..	2						
78	Pt	2	2	6	2	6	10	2	6	10	14	2	6	9	..	1						
79	Au	2	2	6	2	6	10	2	6	10	14	2	6	10	..	1						
80	Hg	2	2	6	2	6	10	2	6	10	14	2	6	10	..	2						
81	Tl	2	2	6	2	6	10	2	6	10	14	2	6	10	..	2	1					
82	Pb	2	2	6	2	6	10	2	6	10	14	2	6	10	..	2	2					
83	Bi	2	2	6	2	6	10	2	6	10	14	2	6	10	..	2	3					
84	Po	2	2	6	2	6	10	2	6	10	14	2	6	10	..	2	4					
85	At	2	2	6	2	6	10	2	6	10	14	2	6	10	..	2	5					
86	Rn	2	2	6	2	6	10	2	6	10	14	2	6	10	..	2	6					
7. Period		1s	2s	2p	3s	3p	3d	4s	4p	4d	4f	5s	5p	5d	5f	6s	6p	6d	6f	7s	7p	
87	Fr	2	2	6	2	6	10	2	6	10	14	2	6	10	..	2	6	..	..	1		
88	Ra	2	2	6	2	6	10	2	6	10	14	2	6	10	..	2	6	..	..	2		
89	Ac	2	2	6	2	6	10	2	6	10	14	2	6	10	..	2	6	1	..	2		
90	Th	2	2	6	2	6	10	2	6	10	14	2	6	10	..	2	6	2	..	2		
91	Pa	2	2	6	2	6	10	2	6	10	14	2	6	10	2	2	6	1	..	2		
92	U	2	2	6	2	6	10	2	6	10	14	2	6	10	3	2	6	1	..	2		
93	Np	2	2	6	2	6	10	2	6	10	14	2	6	10	4	2	6	1	..	2		
94	Pu	2	2	6	2	6	10	2	6	10	14	2	6	10	6	2	6	..	..	2		

95	<u>Am</u>	2	2	6	2	6	10	2	6	10	14	2	6	10	7	2	6	..	..	2
96	<u>Cm</u>	2	2	6	2	6	10	2	6	10	14	2	6	10	7	2	6	1	..	2
97	<u>Bk</u>	2	2	6	2	6	10	2	6	10	14	2	6	10	9	2	6	..	..	2
98	<u>Cf</u>	2	2	6	2	6	10	2	6	10	14	2	6	10	10	2	6	..	..	2
99	<u>Es</u>	2	2	6	2	6	10	2	6	10	14	2	6	10	11	2	6	..	..	2
100	<u>Fm</u>	2	2	6	2	6	10	2	6	10	14	2	6	10	12	2	6	..	..	2
101	<u>Md</u>	2	2	6	2	6	10	2	6	10	14	2	6	10	13	2	6	..	..	2
102	<u>No</u>	2	2	6	2	6	10	2	6	10	14	2	6	10	14	2	6	..	..	2
103	<u>Lr</u>	2	2	6	2	6	10	2	6	10	14	2	6	10	14	2	6	1	..	2
104	<u>Rf</u>	2	2	6	2	6	10	2	6	10	14	2	6	10	14	2	6	2	..	2
105	<u>Db</u>	2	2	6	2	6	10	2	6	10	14	2	6	10	14	2	6	3	..	2
106	<u>Sg</u>	2	2	6	2	6	10	2	6	10	14	2	6	10	14	2	6	4	..	2
107	<u>Bh</u>	2	2	6	2	6	10	2	6	10	14	2	6	10	14	2	6	5	..	2
108	<u>Hs</u>	2	2	6	2	6	10	2	6	10	14	2	6	10	14	2	6	6	..	2
109	<u>Mt</u>	2	2	6	2	6	10	2	6	10	14	2	6	10	14	2	6	7	..	2
110	<u>Uun</u>	2	2	6	2	6	10	2	6	10	14	2	6	10	14	2	6	9	..	1
111	<u>Uuu</u>	2	2	6	2	6	10	2	6	10	14	2	6	10	14	2	6	10	..	1
112	<u>Uub</u>	2	2	6	2	6	10	2	6	10	14	2	6	10	14	2	6	10	..	2
114	<u>Uuq</u>	2	2	6	2	6	10	2	6	10	14	2	6	10	14	2	6	10	..	2 2

Note. In table 2, electron shells begin by filling in a successive manner, this ceases to be the case starting with element 19 which has the 4s and 3d paradox, 4s fills first and 3d empties first, it is wrong. 5g subshell does not exist and the arrangement of valence electron configurations is not successive. The 6s, 6p, 6d, 7s, 7p are the most unstable. Therefore table 2 is wrong.

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