The Greatest Chemical Discovery That Was Ever Made The Jiang Periodic Table Of Stable Elements

Jiang Chunxuan

Institute for Basic Research, Palm Harbor, FL 34682-1577, USA
And: P. O. Box 3924, Beijing 100854, P. R. China
jiangchunxuan@sohu.com, cxjiang@mail.bcf.net.cn, jcxuan@sina.com, Jiangchunxuan@vip.sohu.com, jcxxxx@163.com

Abstract: Using the stable number theory we calculate the best electron configurations of the stable elements and not from experimental data[6-8].We make the Jiangt periodic table of the stable elements.
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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 calculate the best electron configurations of the stable elements. Total quantum number n and orbital quantum number l determine the best electron configurations of the elements

$n = 1 \quad 2 \quad 3 \quad 4 \quad 5 \quad 6...$

Electron shells: $K \quad L \quad M \quad N \quad O \quad P...$

$2(2l+1) = 2 \quad 6 \quad 10 \quad 14 \quad 18 \quad 22...$

Electron subshells: $s \quad p \quad d \quad f \quad g \quad h...$

An atomic subshell that contains its full quota of electrons is said to be closed. A closed s subsell $(l=0)$ 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[3].

Table 1 shows the best electron configurations of the stable 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, $6s, bp, 6d, 6f, 6g$ and $6h$ subshells are unstable. Therefore the elements 111-182 are unstable.Mendeleev electronic configuration of the stable elements is wrong[10] to see table 3.

Using the 1s,2s,3s,4s and 5s of table 1 we make the Jiang periodic table of stable elements with five periods.Table 2 shows the relationship between the outermost subshell electron configurations and the Jiang periodic table. The Jiang periodic table reflects the order in which atomic orbitals are filled.The s orbitals are filled in the two rows.The p orbitals are filled in the six rows.The d orbitals are filled in the ten rows.The f orbitals are filled in the fourteen rows.

Table 1. The Best Electron Configuration of the Stable Elements

Z	Sym	*K*	*L*		*M*			*N*				*O*				
		1*s*	2*s*	2*p*	3*s*	3*p*	3*d*	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*				
		1*s*	2*s*	2*p*	3*s*	3*p*	3*d*	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	

Table 3.Mendeleev Electronic Configuration Of The Stable 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	H	1																			
2	He	2																			
2. Period		1s	2s	2p	3s	3p	3d	4s	4p	4d	4f	5s	5p	5d	5f	6s	6p	6d	6f	7s	7p
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																	
3. Period		1s	2s	2p	3s	3p	3d	4s	4p	4d	4f	5s	5p	5d	5f	6s	6p	6d	6f	7s	7p
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															
4. Period		1s	2s	2p	3s	3p	3d	4s	4p	4d	4f	5s	5p	5d	5f	6s	6p	6d	6f	7s	
19	K	2	2	6	2	6	..	1													
20	Ca	2	2	6	2	6	..	2													
21	Sc	2	2	6	2	6	1	2													
22	Ti	2	2	6	2	6	2	2													
23	V	2	2	6	2	6	3	2													
24	Cr	2	2	6	2	6	5	1													
25	Mn	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	

Table 2. The Jiang periodic table of Stable elements.

Atomic Orbitals	Outermost Subshell electrons	1. Period	2. Period	3. Period	4. Period	5. Period
s	1	1 H	3 Li	11 Na	29 Cu	61 Pm
	2	2 He	4 Be	12 Mg	30 Zn	62 Sm
p	1		5 B	13 Al	31 Ga	63 Eu
	2		6 C	14 Si	32 Ge	64 Gd
	3		7 N	15 P	33 As	65 Tb
	4		8 O	16 S	34 Se	66 Dy
	5		9 F	17 Cl	35 Br	67 Ho
	6		10 Ne	18 Ar	36 Kr	68 Er
d	1			19 K	37 Rb	69 Tm
	2			20 Ca	38 Sr	70 Yb
	3			21 Sc	39 Y	71 Lu
	4			22 Ti	40 Zr	72 Hf
	5			23 V	41 Nb	73 Ta
	6			24 Cr	42 Mo	74 W
	7			25 Mn	43 Tc	75 Re
	8			26 Fe	44 Ru	76 Os
	9			27 Co	45 Rh	77 Ir
	10			28 Ni	46 Pd	78 Pt
f	1				47 Ag	79 Au
	2				48 Cd	80 Hg
	3				49 In	81 Tl
	4				50 Sn	82 Pb
	5				51 Sb	83 Bi
	6				52 Te	84 Po
	7				53 I	85 At
	8				54 Xe	86 Rn
	9				55 Cs	87 Fr
	10				56 Ba	88 Ra
	11				57 La	89 Ac
	12				58 Ce	90 Th
	13				59 Pr	91 Pa
	14				60 Nd	92 U

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