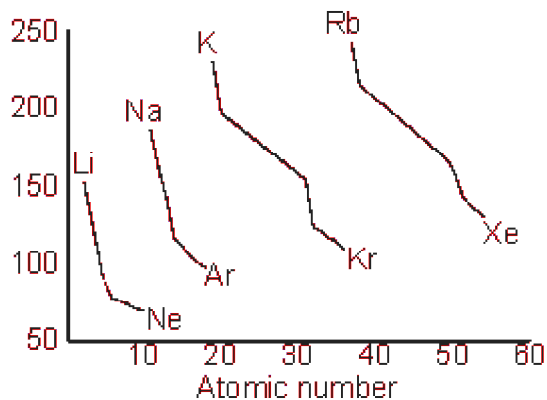


PH Chemistry Ch 6 Only Quiz Show

- Which of the following properties generally decreases as you go from left to right across a period of the periodic table?
 - electronegativity
 - ionization energy
 - atomic size
 - atomic mass
- For which element is the ionic radius larger than the atomic radius?
 - Cl
 - Na
 - Al
 - Mg
- The electron configuration of a ground-state Ag atom is _____.
 - $[\text{Ar}]4s^14d^{10}$
 - $[\text{Ar}]4s^24d^9$
 - $[\text{Kr}]5s^24d^{10}$
 - $[\text{Kr}]5s^14d^{10}$
 - $[\text{Kr}]5s^23d^9$

- What property is plotted on the vertical axis of the graph below?

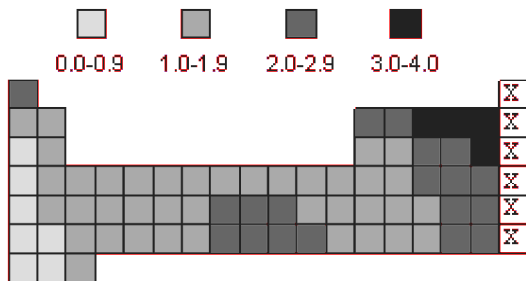


- ionization energy
 - atomic mass
 - electronegativity
 - atomic size
- Which of the following properties are most common in nonmetals?
 - low electronegativity and low ionization energy
 - low electronegativity and high ionization energy
 - high electronegativity and high ionization energy
 - high electronegativity and low ionization energy
 - The ground state configuration of tungsten is _____.
 - $[\text{Xe}]6s^24f^{14}5d^4$
 - $[\text{Xe}]6s^24f^7$
 - $[\text{Ar}]4s^23d^3$
 - $[\text{Ne}]3s^1$
 - $[\text{Kr}]5s^24d^{10}5p^5$

7. Which atom in the chart below is a cation?

	atomic number	mass number	charge
atom I	40	75	-5
atom II	29	107	0
atom III	37	88	-6
atom IV	29	82	+7

- A. atom I
B. atom II
C. atom IV
D. atom III
8. The elements whose electron configurations end with $s^2 p^5$ in the highest occupied energy level belong to Group
A. 10.
B. 3.
C. 17.
D. 7.
9. Which of the following elements has the greatest ability to attract electrons?
A. Be
B. Mg
C. Li
D. Na
10. Which group will have an electron configuration that ends in ns^2 ?
A. Alkaline Earth metals
B. Alkali metals
C. Halogens
D. Actinides
11. In period 2 of the periodic table, which of the following groups has the highest ionization energy?
A. the alkaline earth metals
B. the alkali metals
C. the halogens
D. the noble gases
12. What property is color-coded in the periodic table below?



- A. neutral atom radius
B. electronegativity
C. ionization energy
D. most common ion radius

13. The complete electron configuration of gallium, element 31, is _____.
- A. $1s^42s^42p^63s^43p^64s^43d^3$
 B. $1s^42s^42p^{10}3s^43p^9$
 C. $1s^42s^42p^83s^43p^84s^3$
 D. $1s^22s^22p^63s^23p^63d^{10}4s^24p^1$
 E. $1s^22s^22p^{10}3s^23p^{10}4s^23d^3$
14. The ground state electron configuration for Zn is _____.
- A. $[\text{Ar}]4s^13d^{10}$
 B. $[\text{Kr}]3s^23d^{10}$
 C. $[\text{Ar}]3s^23d^{10}$
 D. $[\text{Ar}]4s^23d^{10}$
 E. $[\text{Kr}]4s^23d^{10}$
15. **The smiling face below represents an element in the periodic table surrounded by eight other elements. Which of its neighboring elements, based on their position relative to the smiling face element, should have a lower ionization energy, a larger radius when neutral, a lower electronegativity, and a higher mass?**

	I	
IV	☺	II
	III	

- A. II
 B. IV
 C. III
 D. I
16. In which of the following groups of ions are the charges all shown correctly?
- A. Li^- , O^{2-} , S^{2+}
 B. Ca^{2+} , Al^{3+} , Br^-
 C. K^{2-} , F^- , Mg^{2+}
 D. Na^+ , I^- , Rb^-
17. **Noble gases are not typically assigned _____ values because they do not generally form bonds with other elements.**
- A. electronegativity
 B. specific heat capacity
 C. atomic mass
 D. ionization energy
18. The element that has a valence configuration of $4s^1$ is _____.
- A. Li
 B. Rb
 C. K
 D. Cs
 E. Na

19. Which two elements have the same ground-state electron configuration?
- Pd and Pt
 - Cl and Ar
 - Cu and Ag
 - Fe and Cu
 - No two elements have the same ground-state electron configuration.
20. **The nine boxes below represent nine neighboring elements on the periodic table. Based on their positions relative to one another, which has the second lowest atomic mass of the four?**

@		&
*		\$

- \$
 - *
 - @
 - &
21. What element has the electron configuration $1s^2 2s^2 2p^6 3s^2 3p^2$?
- selenium
 - silicon
 - nitrogen
 - silver
22. The condensed electron configuration of silicon, element 14, is _____.
- [He]2s⁶2p²
 - [He]2s⁴
 - [Ne]2p¹⁰
 - [Ne]3s²3p²
 - [He]2s⁴2p⁶
23. Which noble gas has the highest first ionization energy?
- krypton
 - helium
 - radon
 - neon

**PH Chemistry Ch 6 Only Quiz Show
Answer Section**

MULTIPLE CHOICE

1. C
2. A
3. D
4. D
5. C
6. A
7. C
8. C
9. A
10. A
11. D
12. B
13. D
14. D
15. C
16. B
17. A
18. C
19. E
20. D
21. B
22. D
23. B