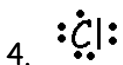
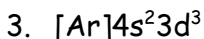
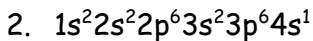


Chapter 5 Study Guide

Answer the following questions on binder paper.

Match the example with the type of configuration shown (use the letter in the word bank):



Word Bank
A. Electron dot structure
B. Noble gas notation
C. Orbital diagram
D. full electron configuration
E. Bohr Diagram

5. Copy and complete the tables

Energy level	Which sublevels?
1	
2	
3	<i>3s, 3p, 3d</i>
4	

Sublevel	Shape	# of orbitals	# electrons
S			
P	<i>peanut</i>	<i>3</i>	<i>6</i>
d			
f			

6. How many electrons are in the following:

a. 2p

b. The third principle energy level

c. 5d

d. The fourth principle energy level

Draw the orbital diagrams for the following:

7. Magnesium (12)

8. Iron (26)

Write the full electron configuration for the following:

9. Aluminum (13)

11. Zirconium (40)

10. Scandium (21)

12. Selenium (34)

Write the Noble gas notation for the following:

13. Antimony (51)

15. Samarium (62)

14. Krypton (36)

16. Hassium (108)

Draw the electron dot structure for the following:

17. Gallium (31)

19. Bromine (35)

18. Oxygen (8)

20. Vanadium (23)

Draw the Bohr Diagram for the following:

21. Nitrogen (7)

22. Sodium

Explain the error in each of the following:

23. Carbon: $1s^2 2s^2 3s^2$

24. Titanium: $[\text{Ar}]4s^2 4d^2$

25. Argon: $[\text{Ar}]$

