Chemistry 115 - Name

Dr. Cary Willard

Quiz 6a (20 points) October 21, 2008

1. (3 points) How many electrons are allowed in a 3d orbital?

There are 2 electrons allowed in any orbital.

1. (3 points) How many electrons are allowed in a 3p sublevel?

There are 6 electrons allowed in a p sublevel.

1. (3 points) Write the complete electron configuration for an atom of phosphorus.

P 1s2 2s2 2p6 3s2 3p3

1. (3 points) Write the complete electron configuration for an atom of iron.

Fe 1s2 2s2 2p6 3s2 3p6 4s2 3d6

1. (3 points) write the shorthand electron configuration for an atom of molybdenum.

Mo [Kr] 5s2 4d4

1. (3 points) An atom of neon is isoelectronic with a Mg+2 ion. What is meant by this statement?

It means that both particles have the same electronic configuration.

1. (2 points) Write an electron dot diagram for an atom of carbon.

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