Chemistry 115 - Name

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Quiz 6a (20 points) October 22, 2008

1. (3 points) How many electrons are allowed in a 3f 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 silicon.

Si 1s2 2s2 2p6 3s2 3p2

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

Ti 1s2 2s2 2p6 3s2 3p6 4s2 3d2

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

Zr [Kr] 5s2 4d2

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 oxygen.

