

Introduction to Natural Science, Winter 2007
Chemistry Workshop – Week 4

1. Write the electron configurations of the first 36 elements using the spectroscopic notation and the rare gas notation. Determine the number of unpaired electrons in the atom. Decide if the element is paramagnetic or diamagnetic.
2. Write the valence electron configurations for the eight main element groups.
3. Write the electron configurations for the elements in the
 - first row of transition elements (Sc, Ti, V, etc.)
 - second row of transition elements
 - third row of transition elements
4. Given the following valence electron configurations, determine the element.
 - [Ar] 4s²
 - [Ar] 3d¹⁰ 4s² 4p⁵
 - [Kr] 5s¹
 - [Kr] 5s² 4d⁵
 - [Ne] 3s² 3p³