

## Chapter 2: Atomic Structure and Bonding

#	Section heading	Relevant in Ohring
2.1	Atomic Structure – the planetary model of the atom	2.1
2.2	Electronic structure <ul style="list-style-type: none"> <li>– the Bohr model: bound electrons as standing waves</li> <li>- electron energy levels and energy-level diagrams</li> <li>- the four quantum numbers</li> <li>- the Pauli exclusion principle</li> <li>- the spdf notation for electron configurations</li> </ul>	2.2.1 2.2.2 2.2.3  omit 2.2.5 omit 2.3
2.3	Primary bonding vs. secondary bonding Interactions between pairs of atoms The major categories of primary bonds <ul style="list-style-type: none"> <li>- electronegativity</li> <li>- ionic bonds</li> <li>- covalent and mixed ionic/covalent bonds</li> <li>- metallic bonds</li> </ul> The major categories of secondary bonds	Skim 2.5.1.2, 2.5.1.4, 2.5.1.5  2.5.2  skim 2.5.1.2
2.4	Energy-level diagrams for large assemblies of atoms	Skim 2.4 but study 2.4.3.1; fig 2-13 2.4.4.2; fig 2-16 omit 2.4.4.3
2.5	Distinguishing between classes of materials using energy-level diagrams	11.1; figure 11-1