

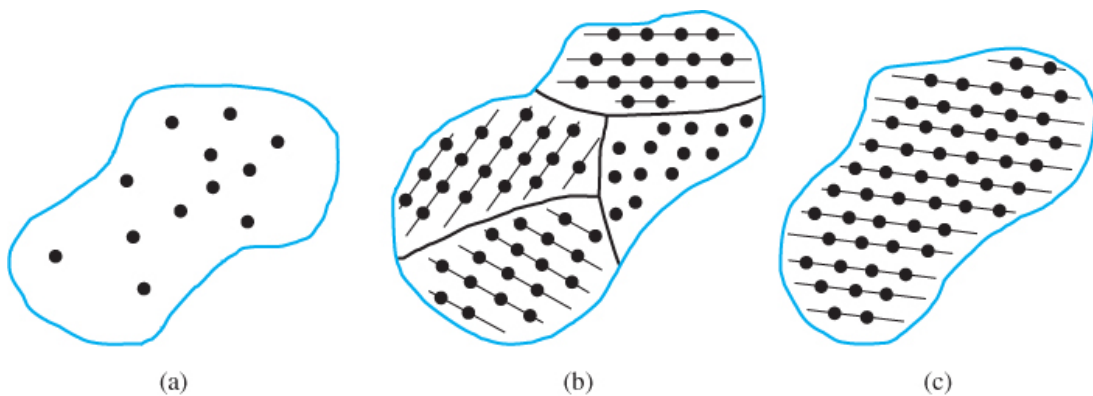
From *Semiconductor Physics and Devices: Basic Principles* (4th Edition), Donald A. Neamen, McGraw Hill, 2012, ISBN 978-0-07-352958-5.

**Table 1.1** | A portion of the periodic table

III	IV	V
5 <b>B</b> Boron	6 <b>C</b> Carbon	
13 <b>Al</b> Aluminum	14 <b>Si</b> Silicon	15 <b>P</b> Phosphorus
31 <b>Ga</b> Gallium	32 <b>Ge</b> Germanium	33 <b>As</b> Arsenic
49 <b>In</b> Indium		51 <b>Sb</b> Antimony

**Table 1.2** | A list of some semiconductor materials

Elemental semiconductors	
Si	Silicon
Ge	Germanium
Compound semiconductors	
AlP	Aluminum phosphide
AlAs	Aluminum arsenide
GaP	Gallium phosphide
GaAs	Gallium arsenide
InP	Indium phosphide



**Figure 1.1** | Schematics of three general types of crystals: (a) amorphous, (b) polycrystalline, (c) single.

