

**TABLE 3.1** Protein structural features revealed at different resolutions.

<b>Resolution (Å)</b>	<b>Discernable Features</b>
4.0–5.0	Protein shape General location of secondary structures
3.5	Outline (trace) of polypeptide chain
2.0–2.5	Amino acid side chains
1.0–1.2	Individual atoms, some hydrogen atoms (e.g., [26,27])
0.8	Hydrogen atoms <sup>*a</sup> Covalent bond valence

<sup>\*a</sup>Hydrogen atom visibility can be used to determine the protonation states of ionizable residues, as well as the orientations of water molecules around (or inside) the protein.