Figure 10–1. The one-electron atom described in rectangular and spherical coordinates.
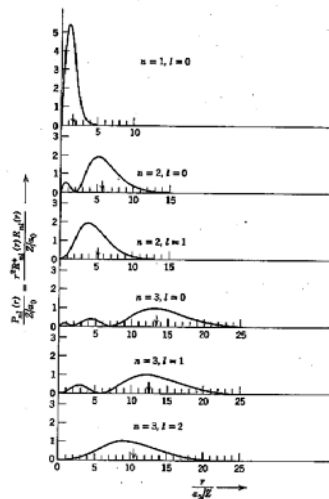

Figure 10-2. The radial probability densities of the one-electron atom for $n = 1, 2, 3$.
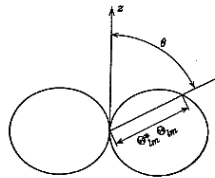
Figure 10-3. A polar diagram of the directionally dependent modulation factor of the probability density.

$l = 3, m = \pm 1$ $l = 3, m = \pm 2$ $l = 3, m = \pm 3$
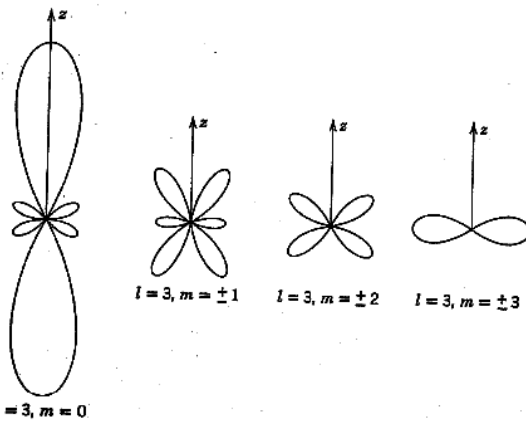
$l = 3, m = 0$

Figure 10-4. Polar diagrams of the directionally dependent modulation factors of the probability densities for $l = 3$; $m = 0, \pm 1, \pm 2, \pm 3$. From L. Pauling and E. B. Wilson, *Introduction to Quantum Mechanics*, McGraw-Hill Book Co., New York, 1935.
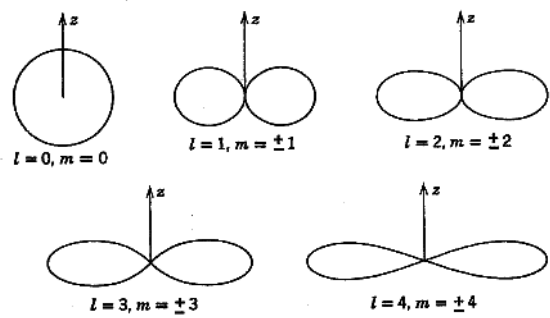
Figure 10-5. Polar diagrams of the directionally dependent modulation factors of the probability densities for $l = 0, 1, 2, 3, 4$; $|m| = l$. From L. Pauling and E. B. Wilson, *Introduction to Quantum Mechanics*, McGraw-Hill Book Co., New York, 1935.
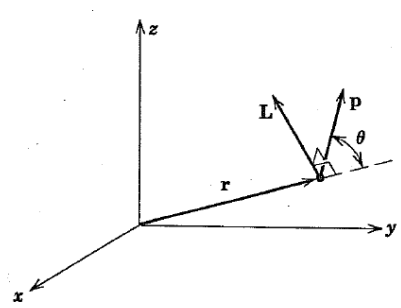

Figure 10-6. The position, linear momentum, and angular momentum vectors of a moving particle.

3