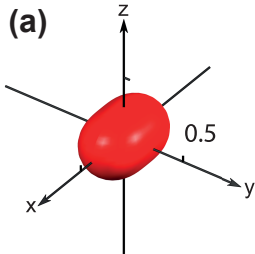
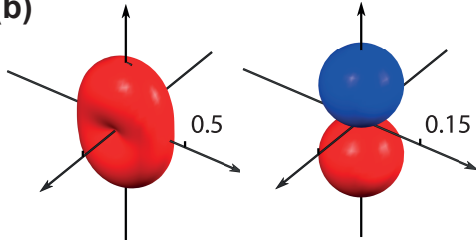


(a)

$$\begin{pmatrix} \frac{1}{4} & 0 & 0 & \frac{1}{8} \\ 0 & \frac{1}{4} & \frac{1}{8} & 0 \\ 0 & \frac{1}{8} & \frac{1}{4} & 0 \\ \frac{1}{8} & 0 & 0 & \frac{1}{4} \end{pmatrix}$$

(b)

$$\begin{pmatrix} \frac{1}{2} & 0 & 0 & -\frac{1}{4} \\ 0 & 0 & \frac{i}{8} & 0 \\ 0 & -\frac{i}{8} & 0 & 0 \\ -\frac{1}{4} & 0 & 0 & \frac{1}{2} \end{pmatrix}$$