

$$E_r = -\frac{Qk^2}{4\pi\epsilon_0 r^2} \left(\left(1 - \frac{3}{k^2 r^2} \right) \cos(\omega t - kr) + \frac{3}{kr} \sin(\omega t - kr) \right) (3 \cos^2(\theta) - 1) \quad (3)$$

$$E_\theta = -\frac{Qk^2}{4\pi\epsilon_0 r^2} \left(\left(3 - \frac{6}{k^2 r^2} \right) \cos(\omega t - kr) - \left(kr - \frac{6}{kr} \right) \sin(\omega t - kr) \right) \sin(\theta) \cos(\theta) \quad (4)$$