

Problems concerning electromagnetic radiation

1. Electromagnetic radiation can be created from an accelerating charge. Figure 34-2 shows the electric field that results from a sudden acceleration of a proton. Using the fundamental laws of electricity and magnetism construct a qualitative argument as to why an electromagnetic wave will propagate in this situation.
2. How do the direction of the E-field, B-field, and direction of propagation relate to each other?
3. What exactly is it that oscillates in an electromagnetic wave?