
Introducing a metallic rod into an electric field. An uncharged thin metallic rod is introduced into a uniform electrostatic field, of intensity vector \mathbf{E}_0 , in free space, such that it is either perpendicular or parallel to \mathbf{E}_0 , as indicated in Fig. Q1.15. The rod affects the original field

- (A) less in case (a).
- (B) less in case (b).
- (C) equally noticeably in both cases.
- (D) negligibly in both cases.

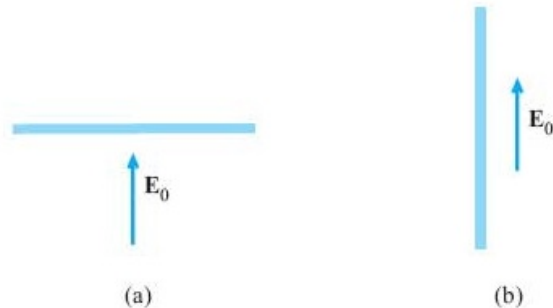


Figure Q1.15 Introducing an uncharged thin metallic rod into a uniform electric field (\mathbf{E}_0 denotes the original field intensity vector, before a new electrostatic state is established); for Question 1.21.

Solution: (A) // *Answer:* (A)