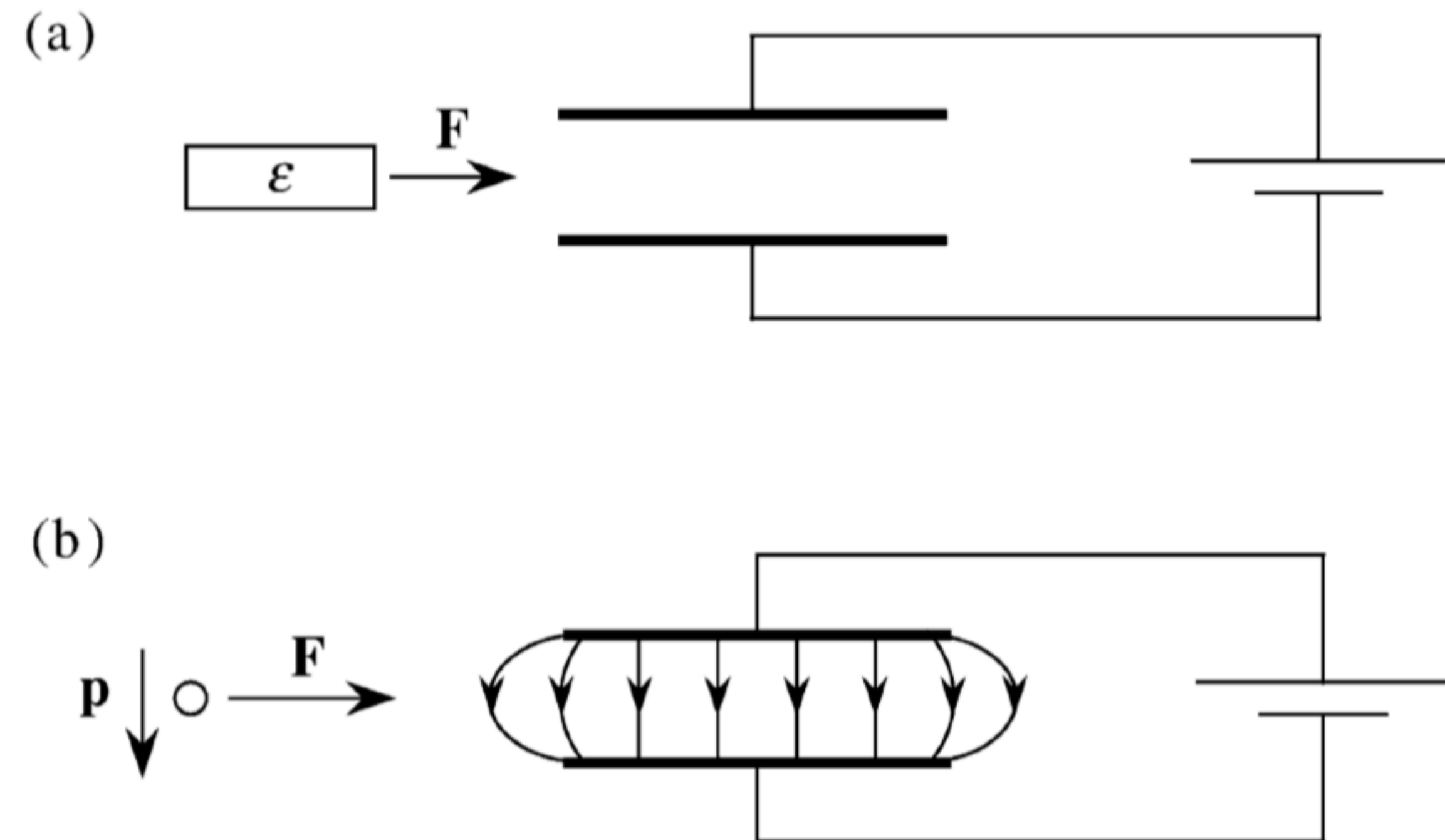
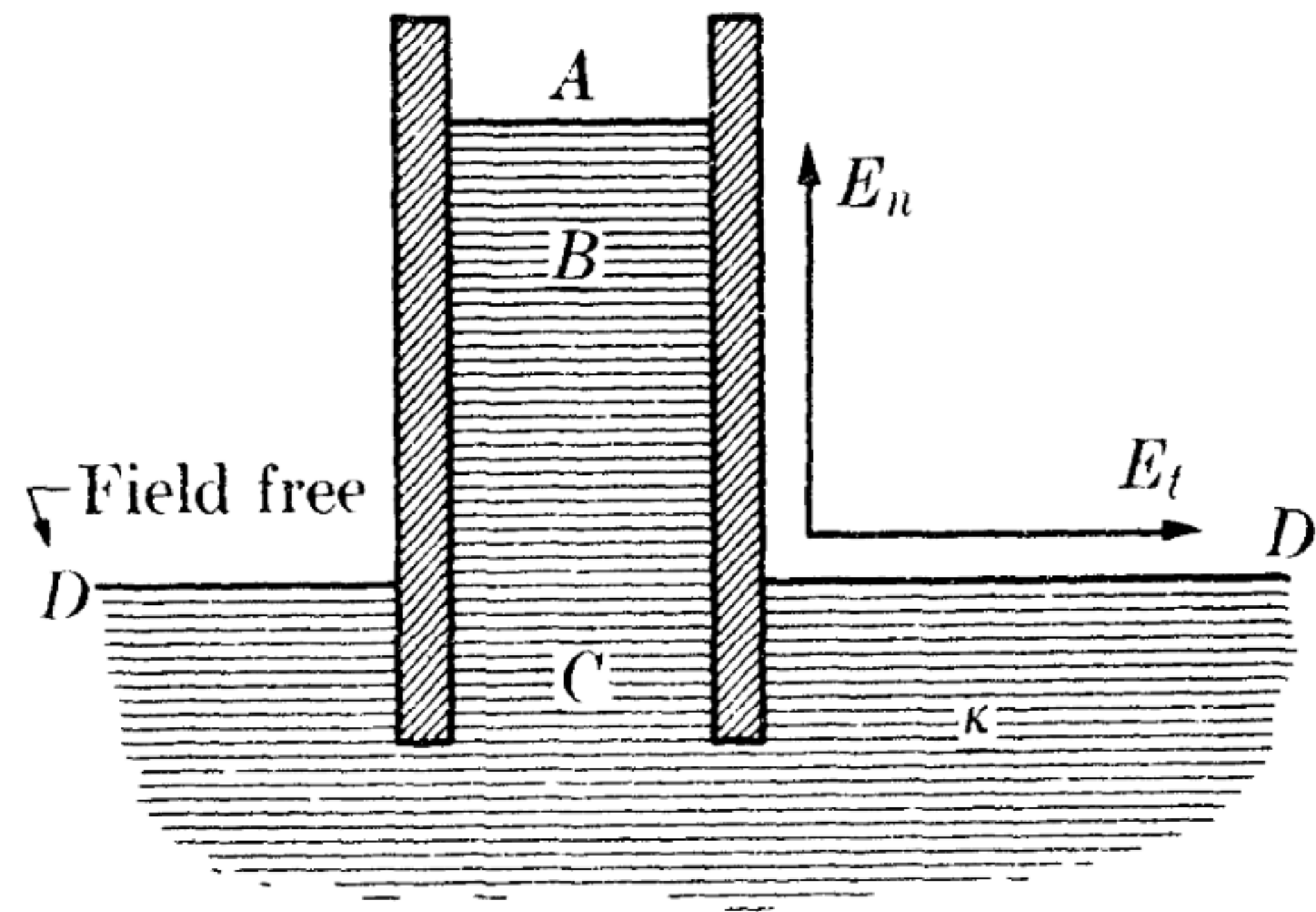




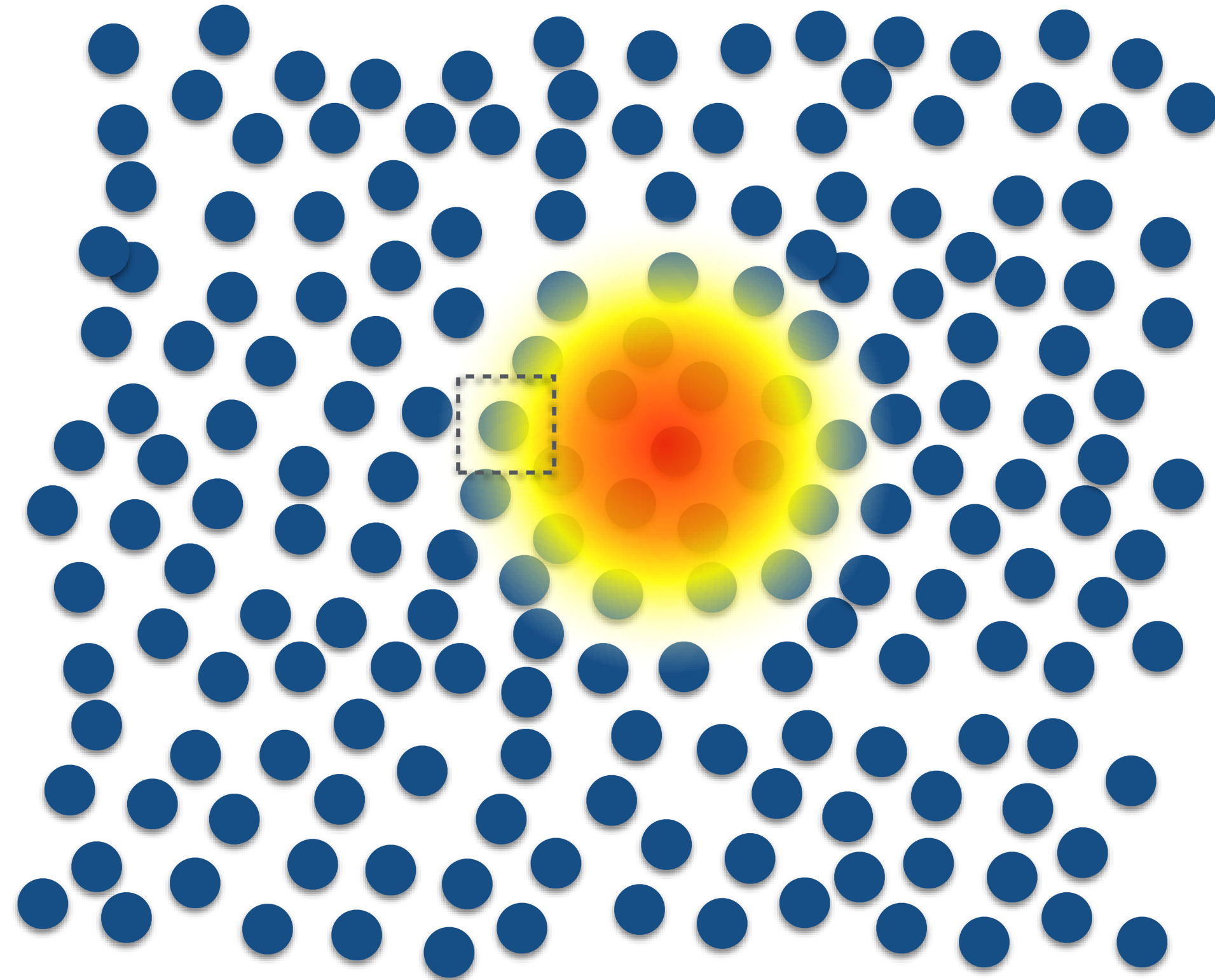
Origin of electrostriction



1. Panofsky, W. K. H. & Phillips, M. Classical Electricity and Magnetism: Second Edition. (Dover Publications, 2012) - Chapter 6 (section 6.6, 6.7)
2. Landau, L. D. et al. Electrodynamics of Continuous Media. (Elsevier Science, 2013). - Chapter 2 (Sections 11,12)
3. Boyd, R. W. . Nonlinear Optics. (Elsevier Science, 2008).



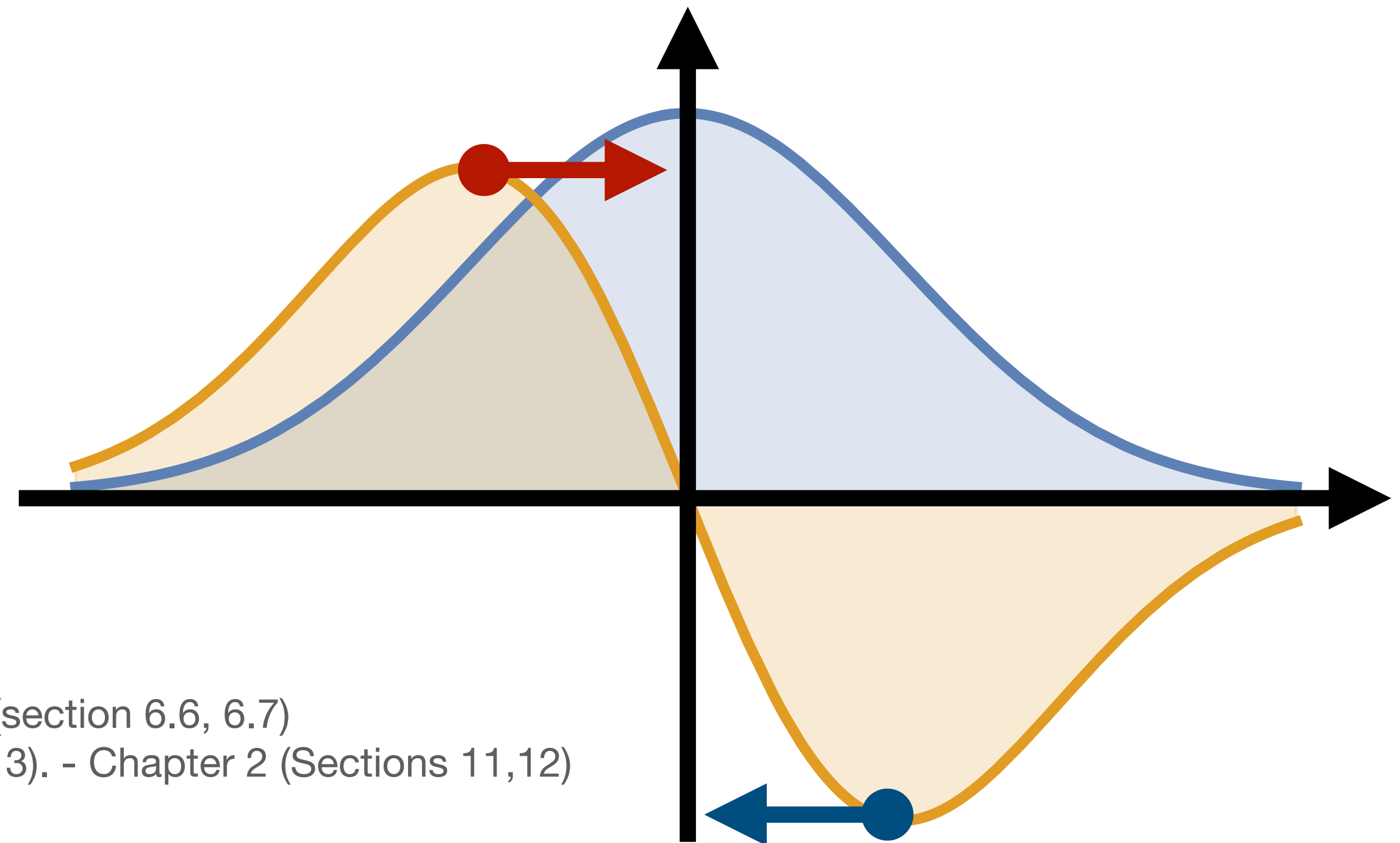
Origin of electrostriction



Energy stored in a single dipole
 $p = \epsilon_0 \alpha E$ (α is the polarizability):

$$U = -\frac{1}{2} \epsilon_0 \alpha E^2$$

$$F = -\nabla U = \frac{1}{2} \epsilon_0 \alpha \nabla E^2$$



1. Panofsky, W. K. H. & Phillips, M. Classical Electricity and Magnetism: Chapter 6 (section 6.6, 6.7)
2. Landau, L. D. et al. Electrodynamics of Continuous Media. (Elsevier Science, 2013). - Chapter 2 (Sections 11,12)
3. Boyd, R. W. . Nonlinear Optics. (Elsevier Science, 2008).