

24.2. The plates of a parallel-plate capacitor are 3.28 mm apart, and each has an area of 12.2 cm^2 . Each plate carries a charge of magnitude $4.35 \times 10^{-8} \text{ C}$. The plates are in vacuum. (a) What is the capacitance? (b) What is the potential difference between the plates? (c) What is the magnitude of the electric field between the plates?