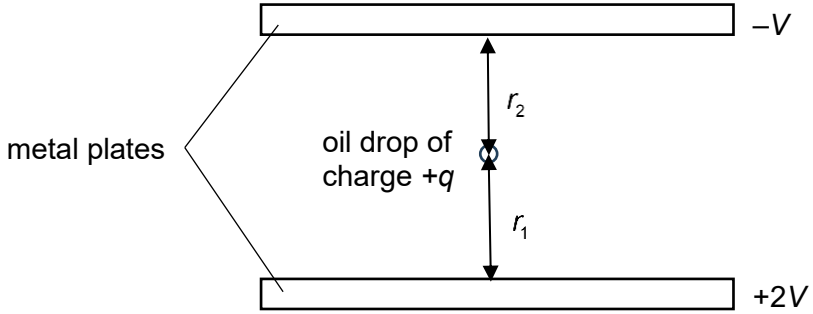
**19** A small oil drop of charge $+q$ is suspended between two metal plates, as shown below.




The small oil drop is a distance $r_1$ from the lower plate and $r_2$ from the upper plate. The lower plate has a charge $Q_1$ and is held at a potential of $+2V$, while the upper plate has charge $Q_2$ and is held at a potential of $-V$.

What one of the expressions gives the magnitude of the electric force on the oil drop?

**A** $\dfrac{Q_1 q}{4\pi\varepsilon_0 r_1^2} - \dfrac{Q_2 q}{4\pi\varepsilon_0 r_2^2}$ **B** $\dfrac{Q_1 q}{4\pi\varepsilon_0 r_1^2} + \dfrac{Q_2 q}{4\pi\varepsilon_0 r_2^2}$ **C** $\dfrac{2Vq}{r_1} + \dfrac{Vq}{r_2}$ **D** $\dfrac{3Vq}{r_1 + r_2}$