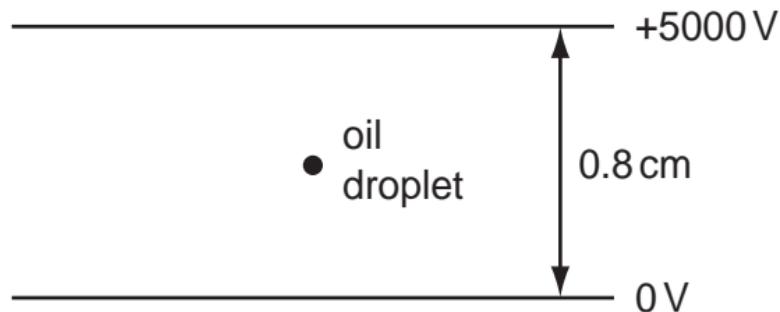


- 31 The diagram shows an oil droplet that has become charged by gaining five electrons. The droplet remains stationary between charged plates.



What is the magnitude and direction of the electrostatic force on the oil droplet?

- A  $5.0 \times 10^{-15}$  N upwards
- B  $5.0 \times 10^{-15}$  N downwards
- C  $5.0 \times 10^{-13}$  N upwards
- D  $5.0 \times 10^{-13}$  N downwards

- 32 A power cable X has a resistance  $R$  and carries current  $I$ .