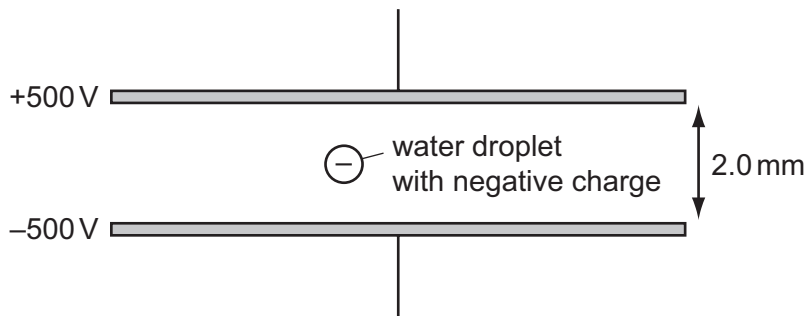


- 13** A small water droplet of mass $3.0\ \mu\text{g}$ carries a charge of $-6.0 \times 10^{-11}\ \text{C}$. The droplet is situated in the Earth's gravitational field between two horizontal metal plates. The potential of the upper plate is $+500\ \text{V}$ and the potential of the lower plate is $-500\ \text{V}$.



What is the motion of the droplet?

- A** It accelerates downwards.
 - B** It remains stationary.
 - C** It accelerates upwards.
 - D** It moves upwards at a constant velocity.
- 14** A horizontal bar is supported on a pivot at its centre of gravity. A fixed lead is attached to one end