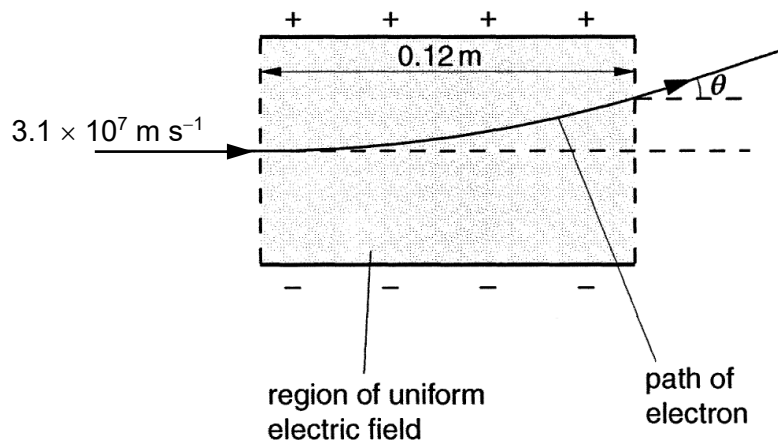


- 18 The diagram below shows a beam of electrons travelling at a speed of  $3.1 \times 10^7 \text{ m s}^{-1}$  in a uniform electric field created by two charged parallel plates.



When an electron is in this field, it experiences a constant force of  $3.2 \times 10^{-15} \text{ N}$  towards the positive plate.

The length of each parallel plate is 0.12 m. The electron emerges from the electric field region at an angle  $\theta$ .

What is the angle  $\theta$ ?

- A  $0^\circ$
- B  $24^\circ$
- C  $66^\circ$
- D  $90^\circ$