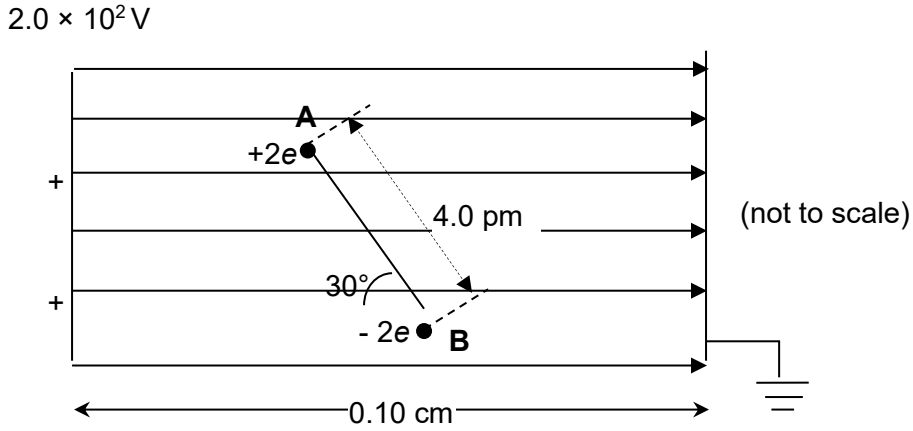
19 Two ions **A** and **B,** at a distance of 4.0 pm apart, are linked to form a molecule. They are situated between a pair of charged parallel plates placed a distance of 0.10 cm apart. The left plate has a potential of 2.0 × 10^2 V and the right plate is earthed. The line joining **A** and **B** is at an angle of 30° to the direction of the electric field as shown in the diagram below.



What is the torque on the molecule **AB**?

A 1.3 × 10^{-25} N m **B** 2.2 × 10^{-25} N m **C** 2.6 × 10^{-25} N m **D** 5.1 × 10^{-25} N m