Capacitor moving plate speed

The drawing shows a parallel plate capacitor that is moving with a speed of 40 m/s through a 4.8- T magnetic field. The velocity v is perpendicular to the magnetic field. The electric field within the capacitor has a value of 250 N/C, and each plate has an area of 9.2 x 10-4 m2.

The drawing shows a parallel plate capacitor that is moving with a speed of 46 m/s through a 2.8-T magnetic field. The velocity v is perpendicular to the magnetic field. The electric field within the capacitor has a value of 210 N/C, and each plate has an area of 9.1 × 10-4 m2.

A very simple system like a parallel-plate capacitor reveals striking features when we examine the peculiar phenomena appearing when it is moving at low speed in different directions.

4) The drawing shows a parallel plate capacitor moving with a speed of 36 m/s through a 3.9 T magnetic field. The velocity vector is perpendicular to the magnetic field as shown in the diagram. The electric field within the capacitor ...

A parallel plate capacitor is moving with a speed of 48 m/s through a 3.5-T magnetic field. The velocity v is perpendicular to the magnetic field. The electric field within the capacitor has a value of 220 N/C, and each plate has an area of 9.1 times 10^ A parallel plate capacitor is moving with a speed of 26 m/s through a 3.6-T magnetic field.

The drawing shows a parallel plate capacitor that is moving with a speed of 41.2 m/s through a 3.40-T magnetic field. The velocity v is perpendicular to the magnetic field. The electric field within the capacitor has a value of 139 N/C, and each plate has an area of 7.91 × 10-4 m².

Homework Statement The figure below shows an electron entering a parallel-plate capacitor with a speed of v=5.9e6 m/s. The electric field of the capacitor has deflected the electron downward by a distance of d=0.550cm at the ...

The drawing shows a parallel plate capacitor that is moving with a speed of 33.0ms through a 3.30-T magnetic field. The velocity v is perpendicular to the magnetic field. The electric field within the capacitor has a value of 203NC, and each plate has an area of 8.27×10-4m2.

The drawing shows a parallel plate capacitor that is moving with a speed of 32 m/s through a 3.6-T magnetic field. The velocity V is perpendicular to the magnetic field. The electric field within the capacitor has a value of 170 N/C. ...

The drawing shows a parallel plate capacitor that is moving with a speed of 44 m/s through a 3.0-T magnetic field. The velocity v is perpendicular to the magnetic field. The electric field within the capacitor has a value of 230 N/C, and each plate has an area of 9.5 x 10^(-2) m^2.

The drawing shows a parallel plate capacitor that is moving with a speed of 35 m/s through a 4.7-T magnetic field. The velocity v is perpendicular to the magnetic field. The electric field within the capacitor has a value of 250 N/C, ...

If you gradually increase the distance between the plates of a capacitor (although always keeping it sufficiently small so that the field is uniform) does the intensity of the field change or does it stay the same?

The potential difference across the plates is (Ed), so, as you increase the plate separation, so the potential difference across the plates in increased. The capacitance decreases from (epsilon) A / d 1 to (epsilon A/d_2) and the ...

Question: 2) The drawing shows a parallel plate capacitor that is moving with a speed of 39 m/s through a 3.4-T magnetic field. The velocity v is perpendicular to the magnetic field. The electric field within the capacitor has a value of 150 ...

The drawing shows a parallel plate capacitor that is moving with a speed of 31 m/s through a 4.3-T magnetic field. The velocity v is perpendicular to the magnetic field. The electric field within the capacitor has a value of 150 N/C, and each plate has an area of 8.9 x 10-4 m2.

The drawing shows a parallel plate capacitor that is moving with a speed of 36 m/s through a 5.1-T magnetic field. The velocity v is perpendicular to the magnetic field. The electric field within the capacitor has a value of 190 N/C, ...

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