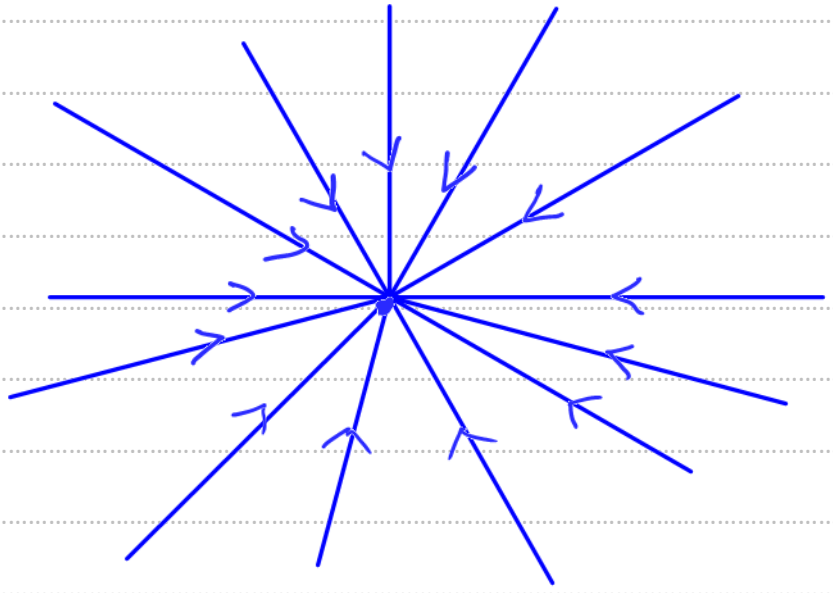
Correction

1°/ $Q = -6{,}4\,nC < 0$: il y a un gain d'électrons

$$n = \frac{|Q|}{e} = \frac{6{,}4 \cdot 10^{-9}}{1{,}6 \cdot 10^{-19}}$$

$$\Rightarrow n = 4 \cdot 10^{10} \text{ électrons}$$

2°/ $Q < 0$



3/ $\vec{E}(M) = K \cdot \frac{Q}{d^2} \vec{i}$

$$\|\vec{E}(M)\| = \frac{K\,|Q|}{d^2}$$

AN : $\|\vec{E}(M)\| = \frac{9\times10^{9} \times 6{,}4\times10^{-9}}{(0{,}08)^2}$

$$\|\vec{E}(M)\| = \frac{9\times64}{64\cdot10^{-4}} = 9\cdot10^{3}\ N.C^{-1}$$

Remarque

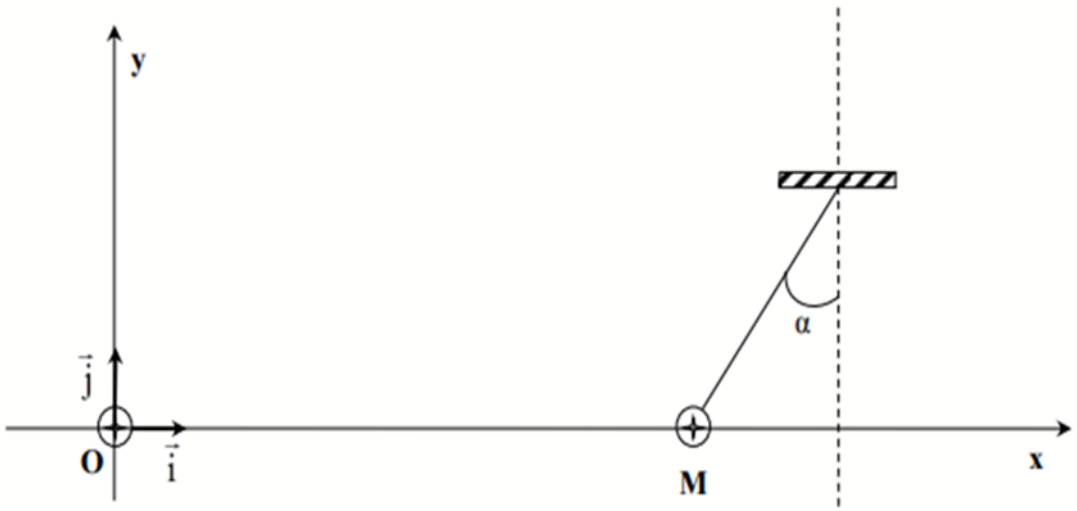
$$\vec{F} = q\cdot\vec{E}$$

$$\Rightarrow \vec{E} = \frac{\vec{F}}{q}$$

$$\Rightarrow \|\vec{E}\| = \frac{\|\vec{F}\|}{|q|}$$

($\|\vec{F}\|$: (N), $|q|$: (C), $\|\vec{E}\|$: $N.C^{-1}$)

4%



q

q

$\vec{E}$, $\|\vec{E}\|$