OG MEPO.

- $F_{el} = \frac{1}{2} \frac{\varepsilon_0 S}{e^2} \Delta V^2$

$\varepsilon_0 = 8,9 \times 10^{-12}\ F.m^{-1}$.

$S = 1\,cm \times 3\,cm = 3.10^{-4}\ m^2$

$e = 1\,cm = 10^{-2}\ m$.

$\Delta V = 5V$

$\rightarrow F_{el} = 7 \times 10^{-11}$ N.

$\rightarrow$ du $2,7\ g.cm^{-3} = 2,7 \times 10^3\ kg.m^{-3}$.

$\delta = 20\ \mu m$.

$\rightarrow \delta S = 6 \times 10^{-9}\ m^3$

$\rightarrow m = 1,6 \times 10^{-5}\ kg$.

$a = \frac{F_{el}}{m} = 4,4 \times 10^{-6}\ m.s^{-2}$.

si $\delta x = \frac{1}{2} a t^2$. $t = \frac{2\delta x}{a}$.

$t \simeq 4500\ s$.

$\simeq 1h30$.

- $F_t = \frac{1}{2} \rho S C_x v^2$.

$v = 1\,km/h = 2,8 \times 10^{-1}\ m.s^{-1}$.

bille

$d \simeq 1\,cm$

$\nu = 15 \times 10^{-6}\ m.s^{-1}$

$Re \simeq 185 \rightarrow C_x = 0,8$

$\rho = 1,25\ kg.m^{-3}$

$S = 3 \times 10^{-4}\ m^2$

$F \simeq 1 \times 10^{-5}$ N.

$F \simeq 1 \times 10^{-9}$ N $\leftarrow v = \frac{1}{100}\,km/h$.