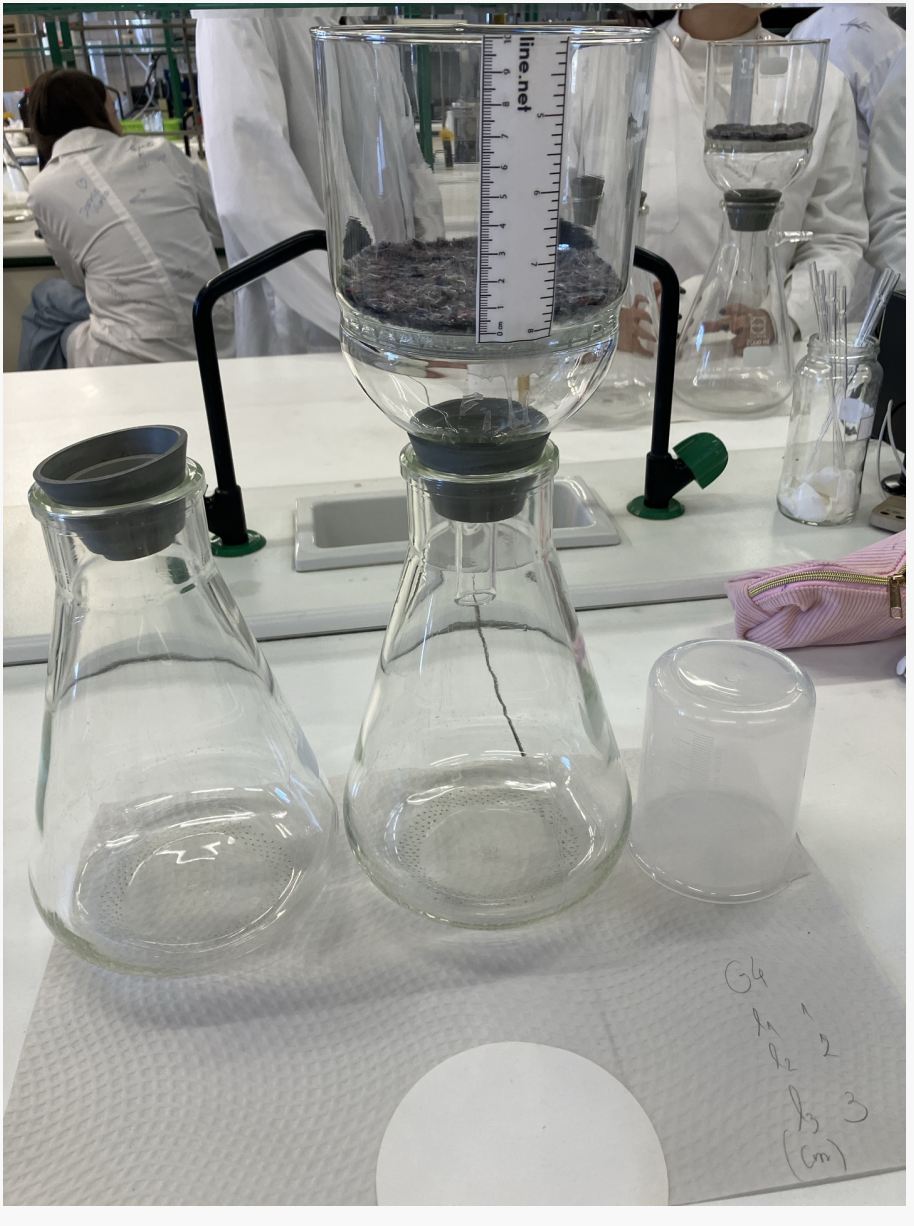
$$v = \frac{l_A}{V}$$

$$\frac{\mathrm{d}V}{\mathrm{d}t} = \frac{A^2\,(-\Delta P)}{r\,\mu\,v(V + L_a/v)}$$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$$\mu_C = \mu_0 \left(1 - \frac{C}{C_{\max}}\right)^{\alpha} \qquad (1)$$