

GOGGIA MILLIKAN 15°

$$V_{\text{CAD.}} = -13,9 \quad V_{\text{SAL.}} = 20,1$$

$$d_{\text{dió}} = 1029$$

$$E = 10^5 \text{ N/C} \quad m = 1,7 \cdot 10^{-4} \frac{\text{N} \cdot \text{s}}{\text{m}^2}$$

FASE 1

$$P = F_{\text{ATI}}$$

$$m g = 6 \pi r \eta V_i \quad d = \frac{m}{V}$$

$$g d \cdot \frac{4}{3} \pi r^3 = 6 \pi r \eta V_i$$

$$r = \sqrt{\frac{6 \pi \cdot 1,7 \cdot 10^{-4} \frac{\text{N} \cdot \text{s}}{\text{m}^2} \cdot 1,39 \cdot 10^5 \frac{\text{m}}{\text{s}}}{1029 \frac{\text{kg}}{\text{m}^3} \cdot \frac{4}{3} \cdot g \frac{\text{N}}{\text{kg}}}}$$

$$r = 1,02 \cdot 10^{-6} \text{ m} \quad 3,246 \cdot 10^{-6} \text{ m}$$

FASE 2

$$P q E = P + F_{\text{ATI}} \quad | \quad q E = m g + 6 \pi r \eta V_2 \quad | \quad q E = 6 \pi r \eta V_1 + 6 \pi r \eta V_2$$

$$q = \frac{m 6 \pi (V_1 + V_2) r}{E}$$

$$q = \frac{6 \pi \cdot 1,7 \cdot 10^{-4} \frac{\text{N} \cdot \text{s}}{\text{m}^2} (0,0000479 \text{ m/s}) \cdot 1,02 \cdot 10^{-6} \text{ m}}{10^5 \frac{\text{N}}{\text{C}}} =$$