



$$\vec{F} = q \vec{E} \Rightarrow \boxed{q < 0}$$

$$b) |\vec{T}_y| = |\vec{P}| \Rightarrow |\vec{P}| = m \cdot g = 250 \cdot 10^{-3} \cdot 9,8 = \boxed{2,45 \text{ N}}$$

$$|\vec{T}_x| = |\vec{F}_e|$$

$$q |\vec{E}|$$

$$|\vec{T}_y| = |\vec{T}| \cos \alpha$$

$$\boxed{|\vec{T}| = 3,1 \text{ N}}$$

$$c) |\vec{T}_x| = |\vec{T}| \sin \alpha \Rightarrow |\vec{T}_x| = 1,85 \text{ N}$$

$$1,85 = q |\vec{E}| \Rightarrow q = \frac{1,85}{103} \Rightarrow \boxed{q = 1,8 \cdot 10^{-2} \text{ C}}$$