

SiQuENC: Electric charge transfer

Neatly and graphically represent situation(s)

Carefully read the problem three times.

Draw a time-ordered sequence of **comic strip panels**.

I ($t = t_i$)

II ($t_i < t < t_f$)

III ($t = t_f$)

Label objects with **known charges** (sign and/or magnitude).

Identify **requested unknowns**.

Graphically represent quantities and their relationships

Illustrate **representative microscopic positive and negative charges and transport**

- consistent with labeled charges
 - consistent with Coulomb's law (strength and direction)
 - and consistent with the types of charge carriers relevant to the problem
 - For **insulators**, positive and negative **charges** are **can move no farther than permitted by the rotation of molecules**.
 - For **everyday solid conductors**, **positive atomic cores** are essentially **stationary** while **some electrons** are sufficiently free that they **can be transported** throughout the conducting material.
 - For **everyday aqueous solutions**, both **positively charged and negatively charged dissolved ions** can be transported.
-

Identify relevant allowed starting point (in) equation(s)

$$\Sigma Q_i + \Delta Q_{\text{EXTERNALLY SUPPLIED}} = \Sigma Q_f$$

Analyze

Communicate
