ELECTROSTÁTICA

Estudia las cargas eléctricas en reposo.

CARGA ELÉCTRICA

- **DEFECTO DE ELECTRONES** → **CARGA POSITIVA**
- **EXCESO DE ELECTRONES** → **CARGA NEGATIVA**

Es una magnitud que caracteriza a un cuerpo por el exceso o defecto de electrones que posee después de una interacción con otro.

ÁTOMO

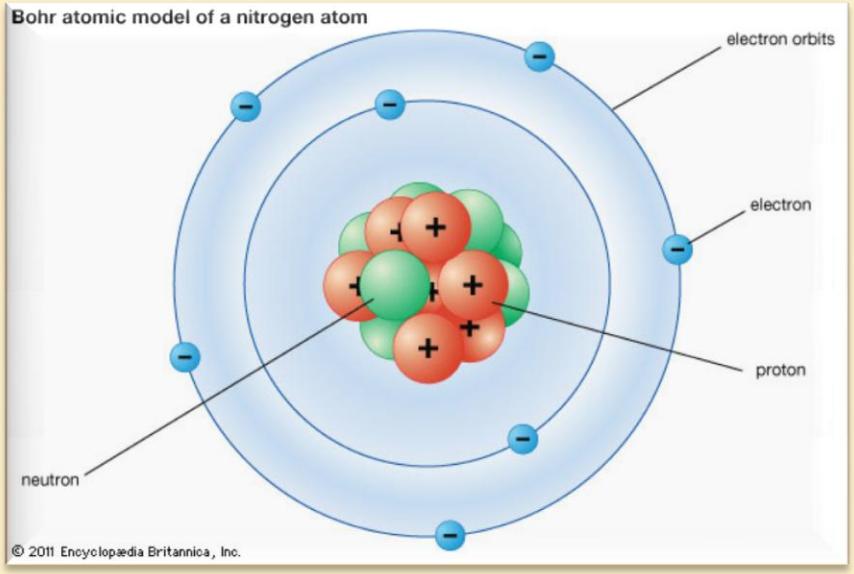
NÚCLEO

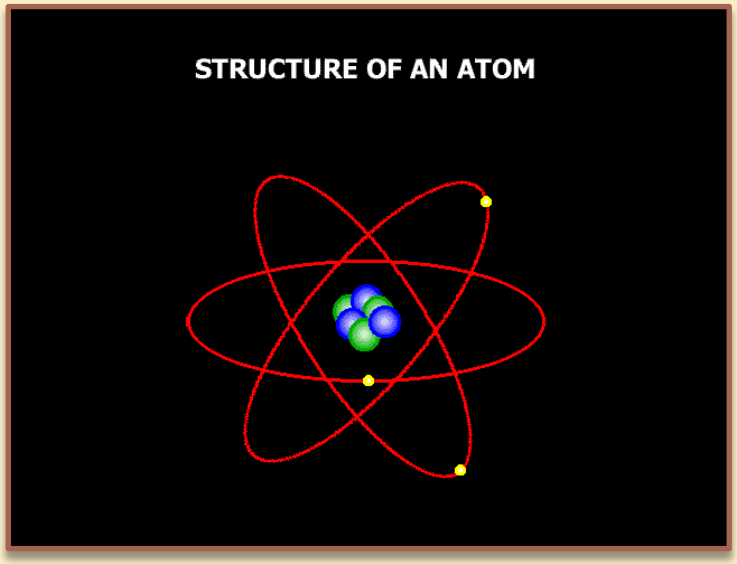
NEUTRONES

PROTONES

ENVOLTURA NUCLEAR

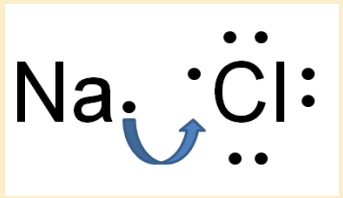
ELECTRONES





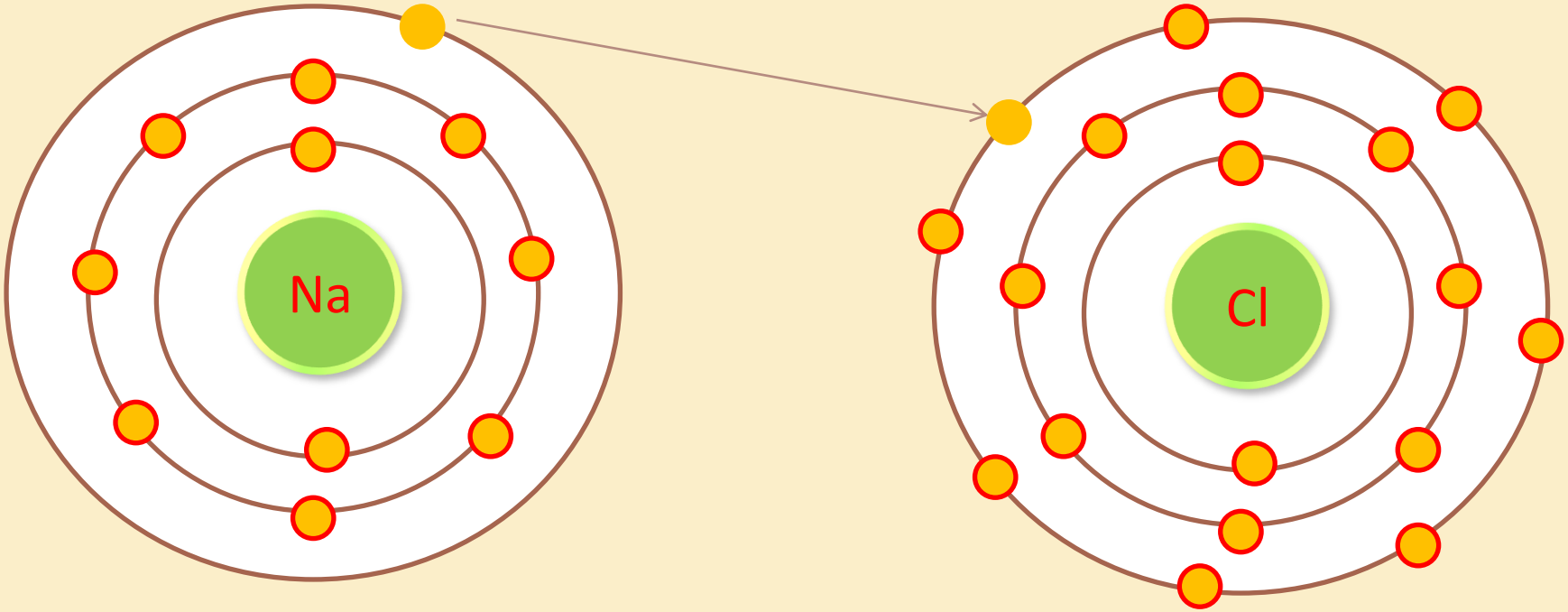
ÁTOMO DE SODIO

Z=11



ÁTOMO DE CLORO

Z=17



\+

F

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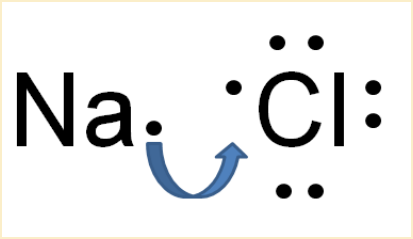
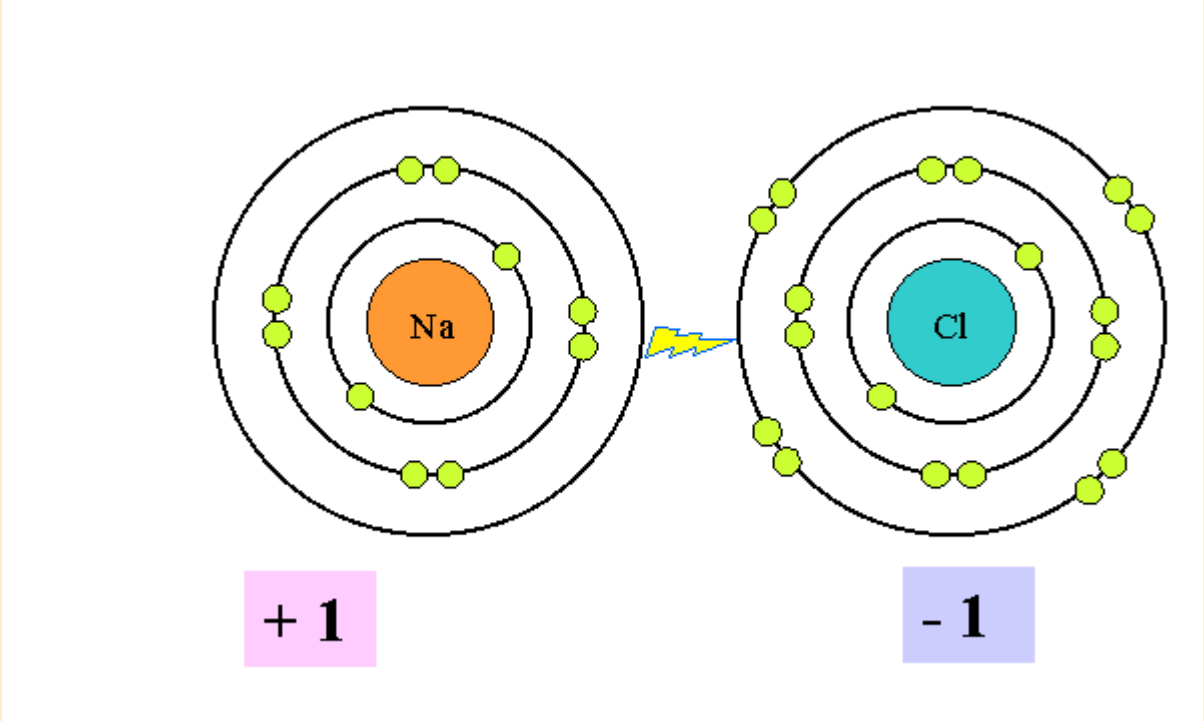
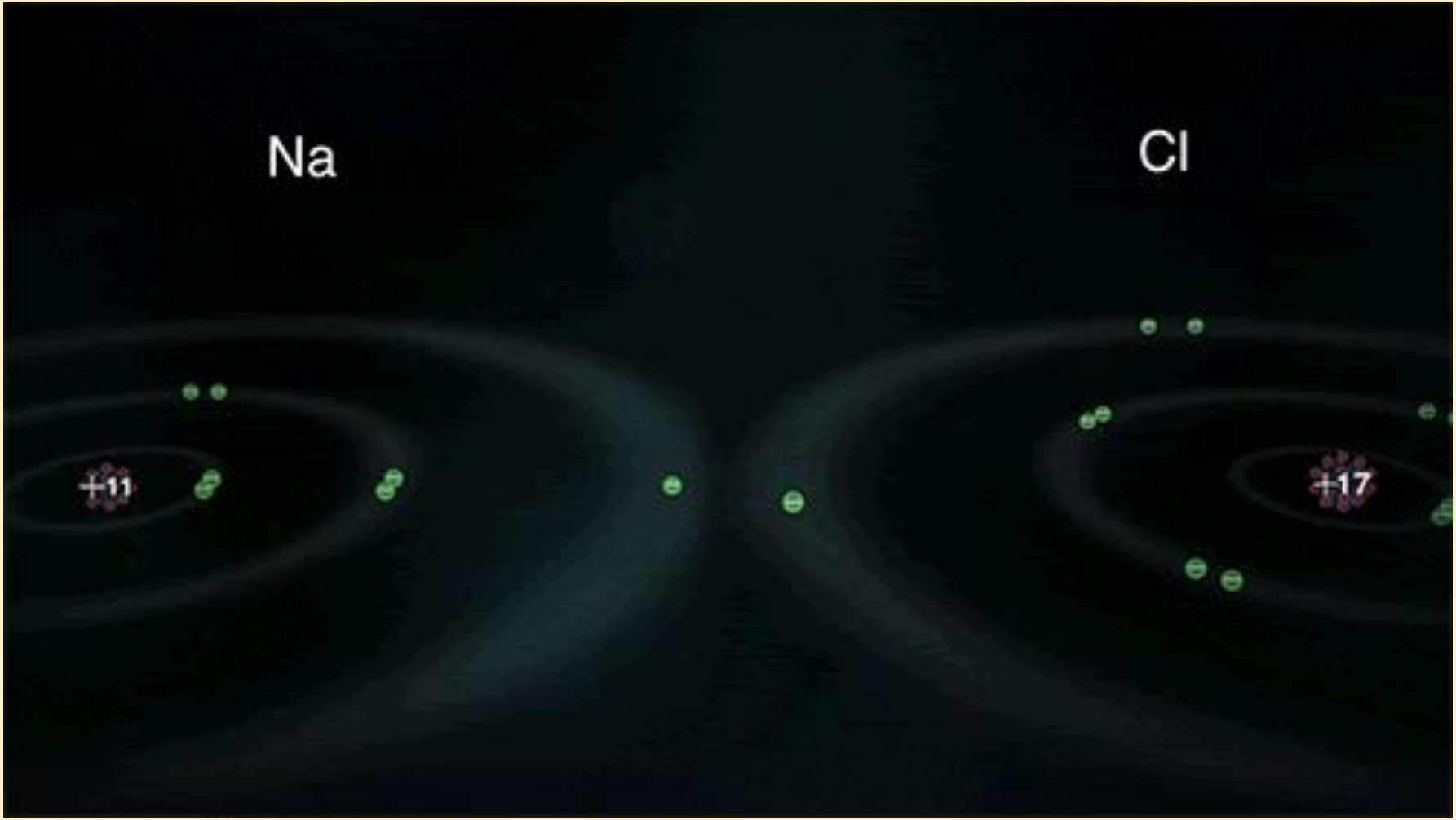

Na
Cl


Na
Cl
+ 1
- 1

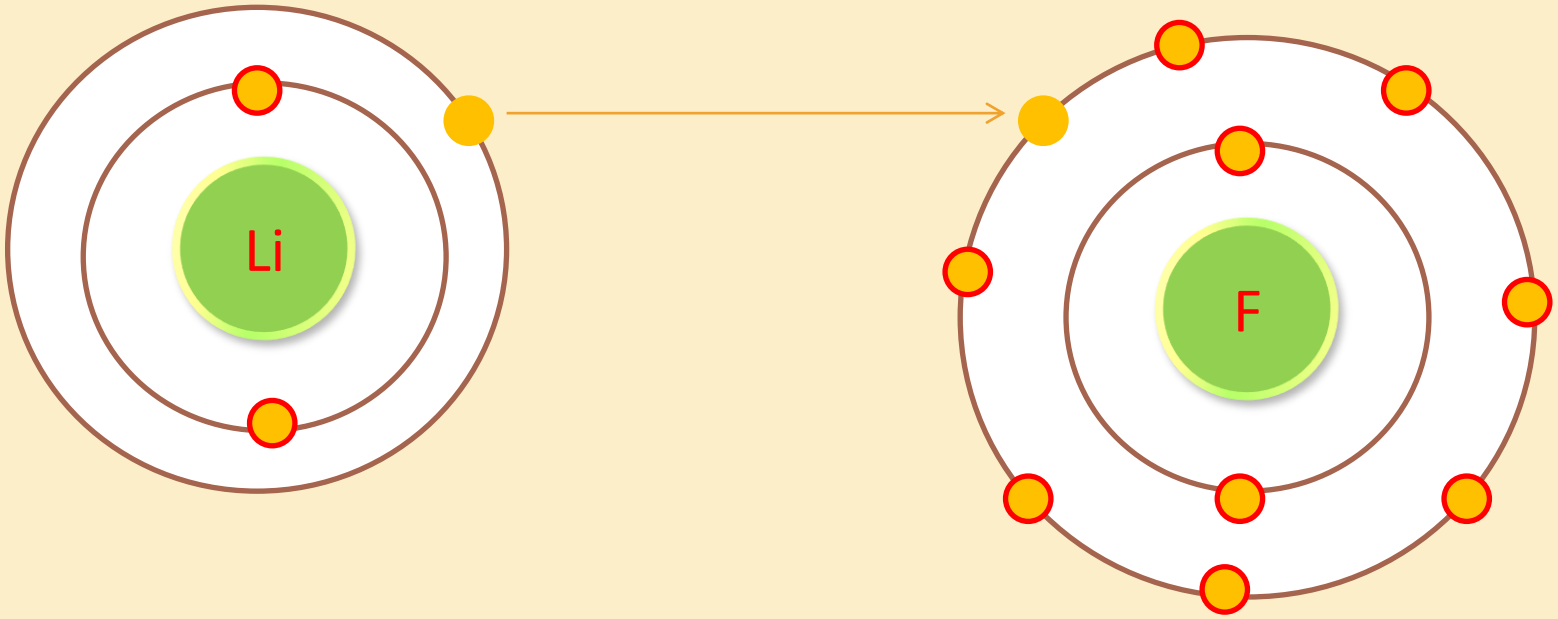

Na
Cl
+11
+17

ÁTOMO DE LITIO

Z=3

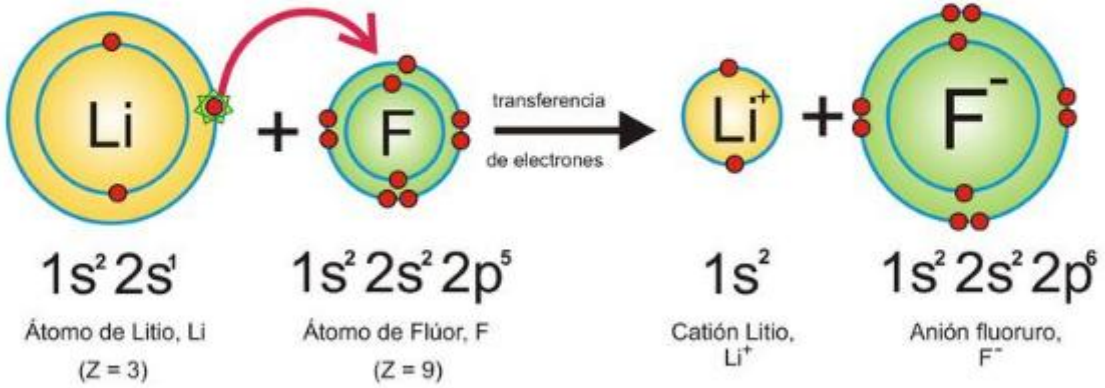
ÁTOMO DE FLUOR

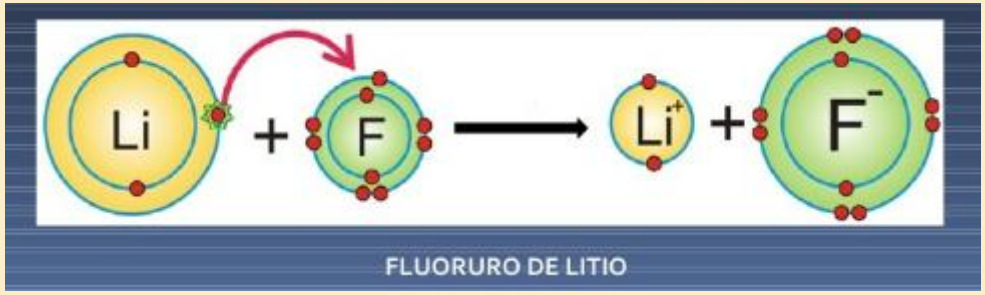
Z=9



\+ → F ← -

Enlace iónico





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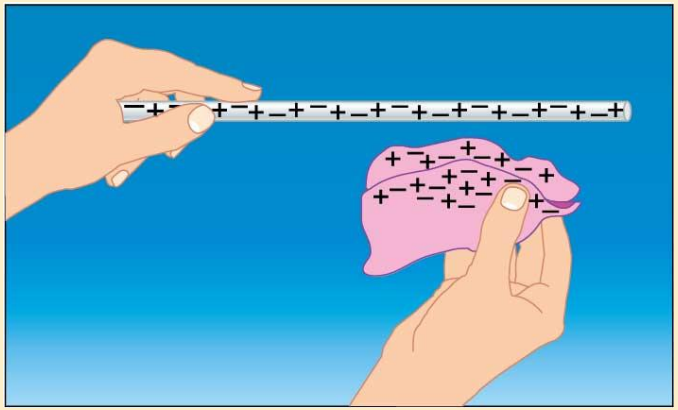
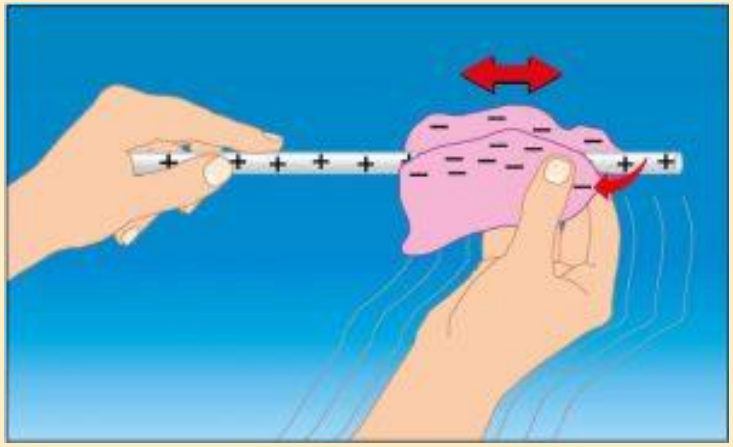
FROTAMIENTO





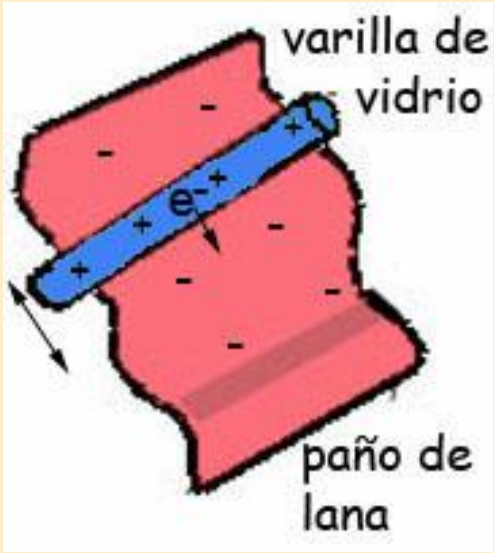
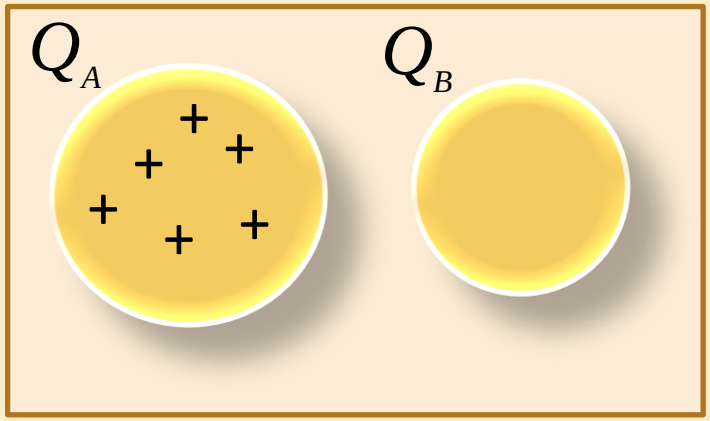


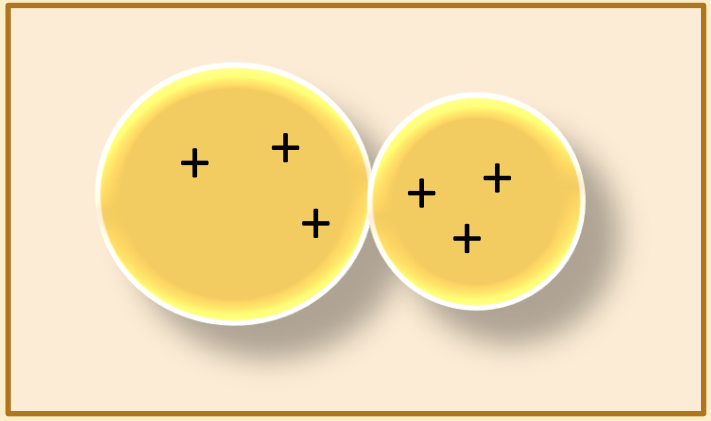
Fig. 6 Barra cargada por frotamiento con un paño. Animación PP1.

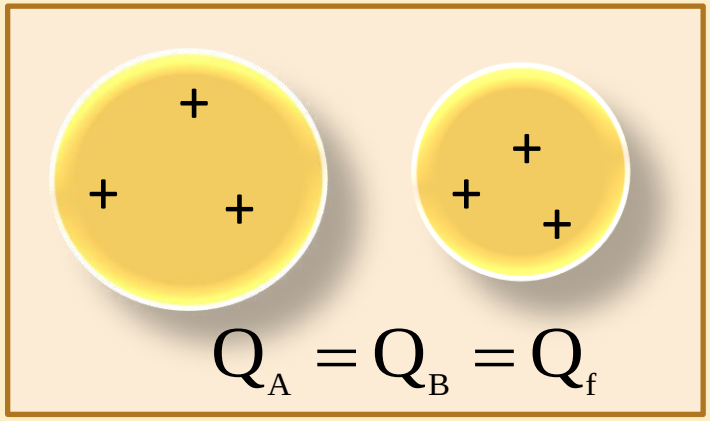
ELECTRIZACIÓN

CONTACTO

- Este fenómeno se produce cuando dos conductores se tocan, uno cargado y el otro neutro.



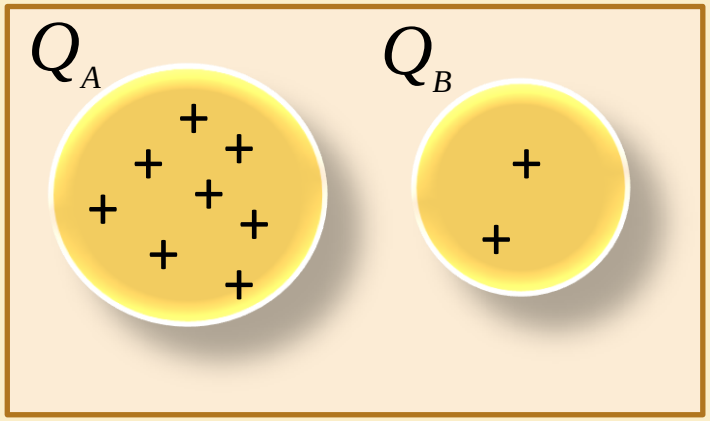


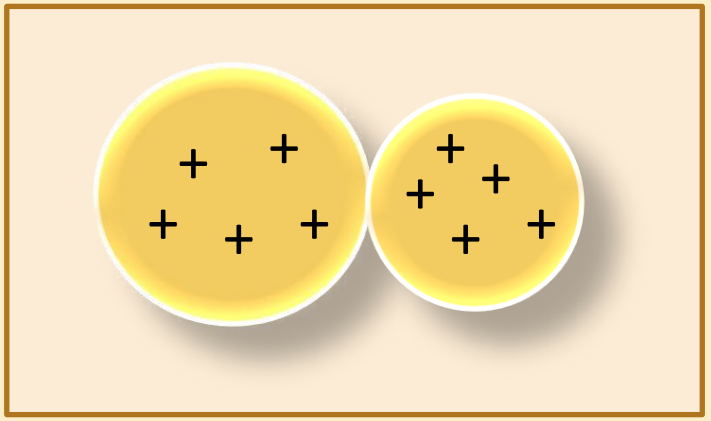


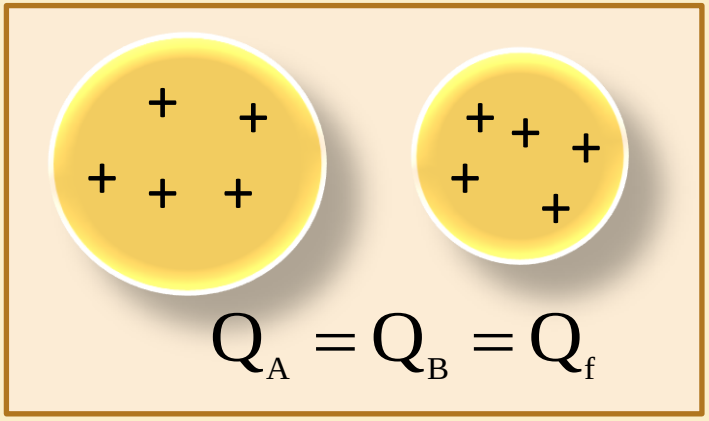
$$Q_f = \frac{Q_A + Q_B}{2}$$

$$Q_f = \frac{6p + 0}{2} = 3P$$

EJEMPLO 2



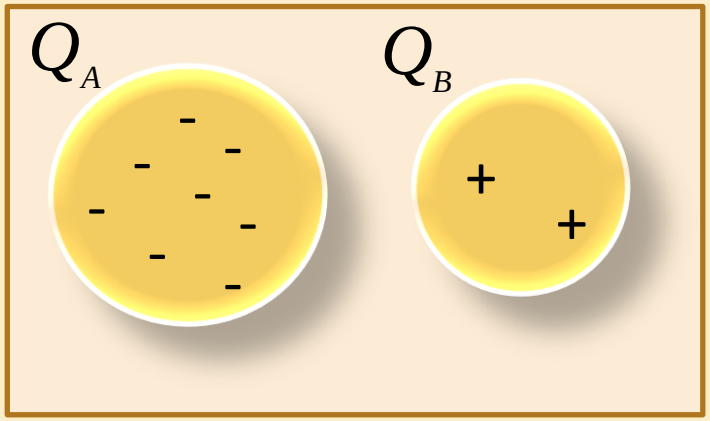


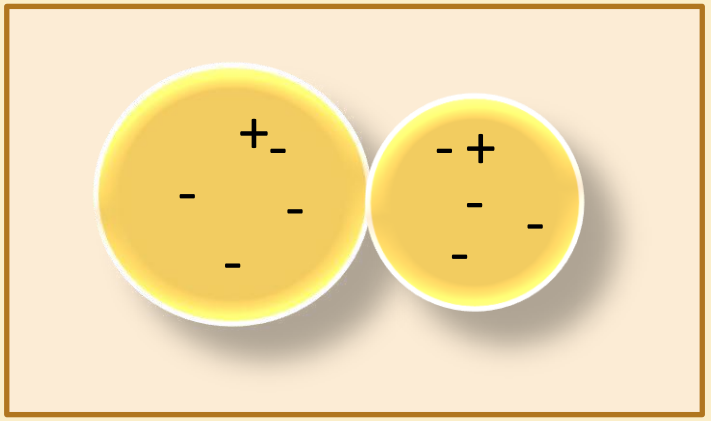


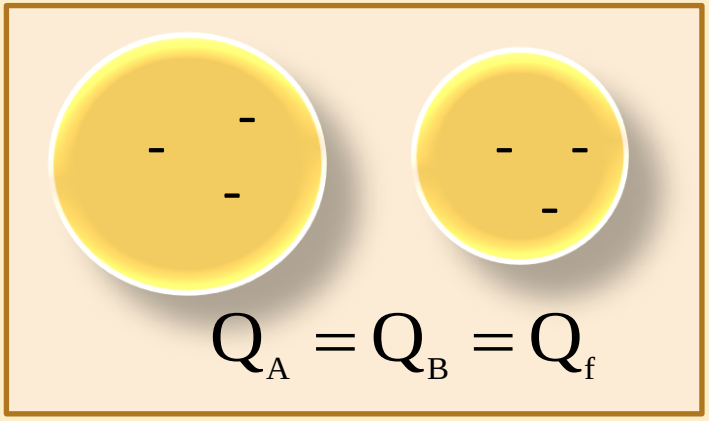
$$Q_f = \frac{Q_A + Q_B}{2}$$

$$Q_f = \frac{8p + 2P}{2} = 5P$$

EJEMPLO 2





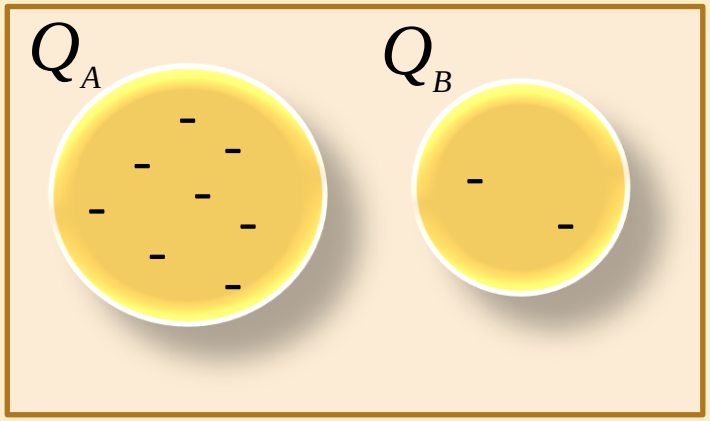


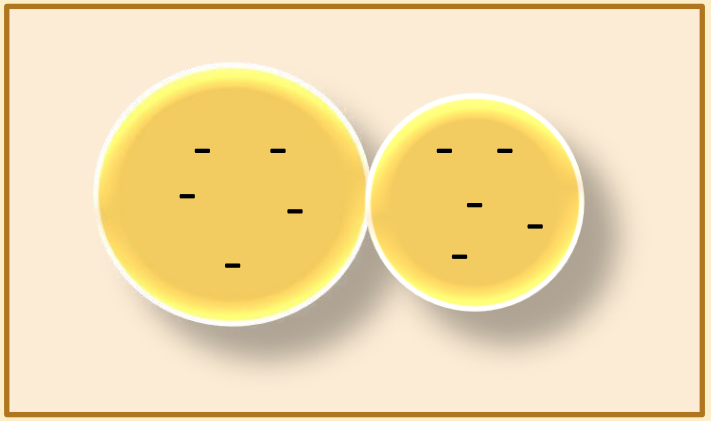
$$Q_A = Q_B = Q_f$$

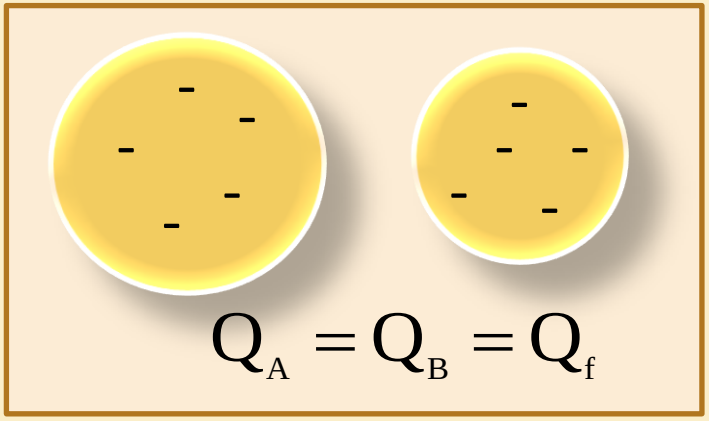
$$Q_f = \frac{Q_A + Q_B}{2}$$

$$Q_f = \frac{8e - 2P}{2} = 3e$$

EJEMPLO 3





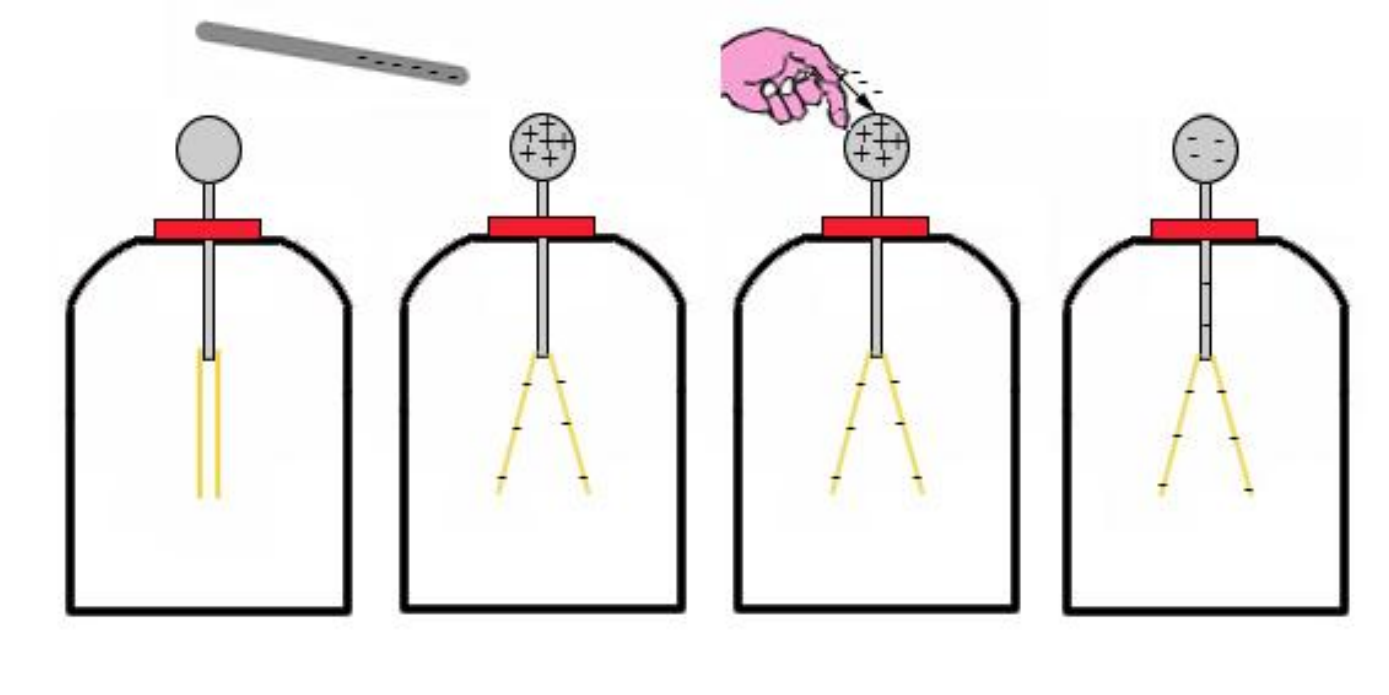


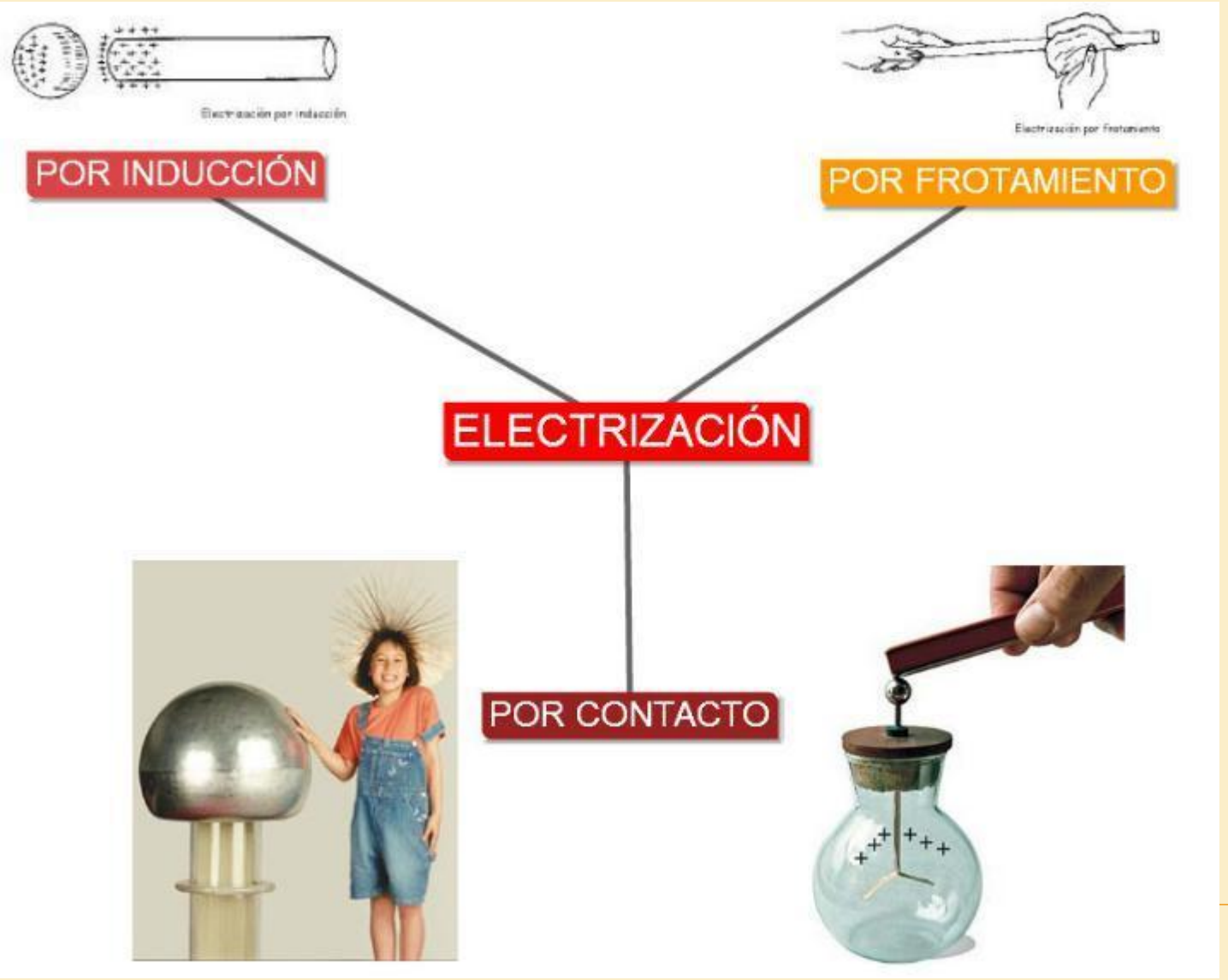
$$Q_f = \frac{Q_A + Q_B}{2}$$

$$Q_f = \frac{8e + 2e}{2} = 5e$$

ELECTRIZACIÓN

INDUCCIÓN




POR INDUCCIÓN
POR FROTAMIENTO
ELECTRIZACIÓN
POR CONTACTO

FIN