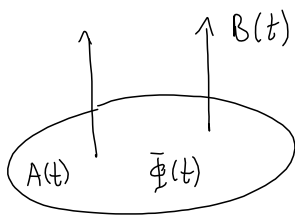


Faradays induksjonslov

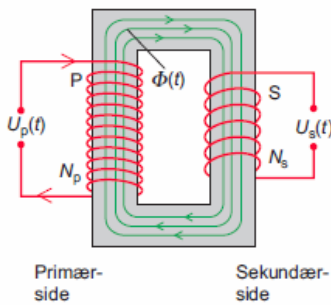
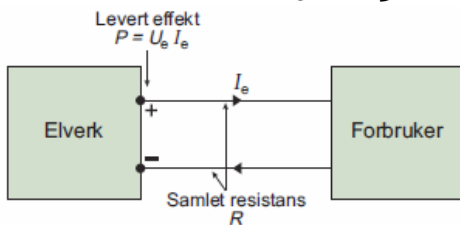


$$\mathcal{E}(t) = - \dot{\Phi}(t)$$

mai 16-13:07

Transformator

$$\mathcal{E} = - \dot{\Phi}(t)$$

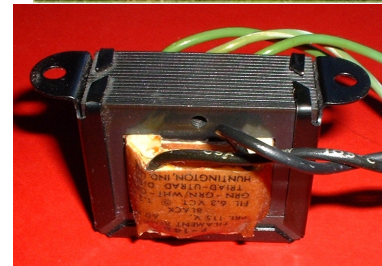


$$U_s = - N_s \dot{\Phi}(t)$$

$$U_p = - N_p \dot{\Phi}(t)$$

$$\frac{U_s}{U_p} = \frac{N_s}{N_p}$$

$$U_s = U_p \cdot \frac{N_s}{N_p}$$



Effekt inn: $P_p = U_p \cdot I_p$

Effekt ut: $P_s = U_s \cdot I_s$

$$P_s = P_p : U_p I_p = U_s I_s$$

$$I_s = I_p \frac{U_p}{U_s} = I_p \frac{N_p}{N_s}$$

mai 18-14:53

Eksempel

$$N_p = 600$$

$$N_s = 12000$$

$$U_p = 230V$$

$$U_s = U_p \cdot \frac{N_s}{N_p} = 230V \cdot \frac{12000}{600} = 4600V$$

$$N_p = 600$$

$$N_s = 6$$

$$U_p = 230V$$

$$U_s = U_p \cdot \frac{N_s}{N_p} = 230V \cdot \frac{6}{600} = 2,3V$$

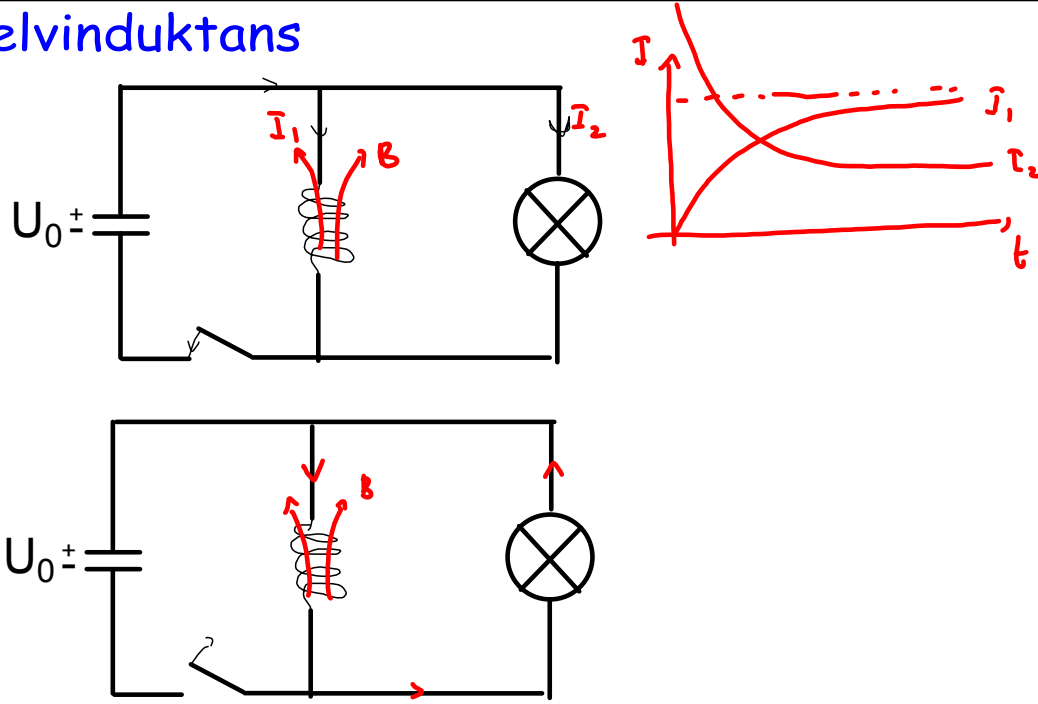
May 20-10:20 AM



Hvordan kan det ha seg at isen ikke smelter, men vannet koker?

May 24-8:45 AM

Selvinduktans

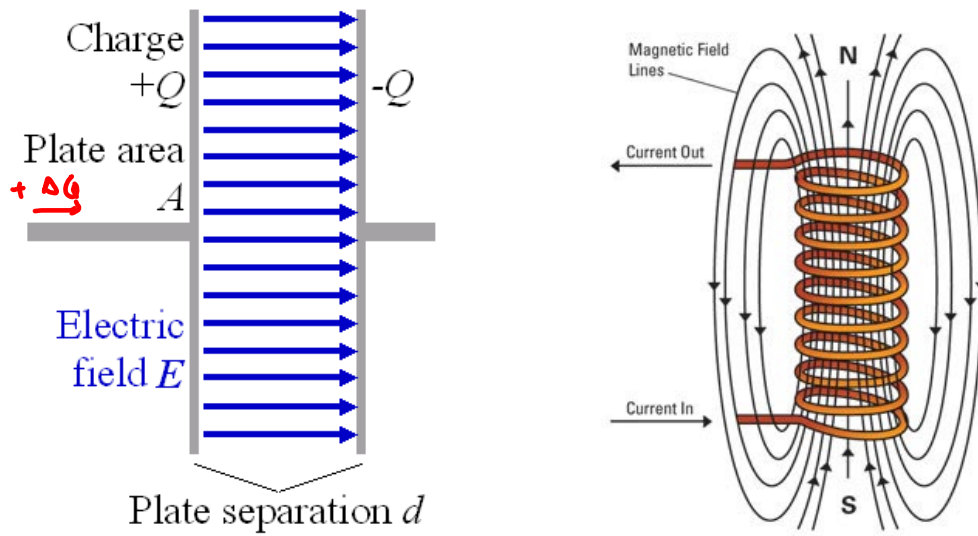


<http://phet.colorado.edu/en/simulation/circuit-construction-kit-ac>



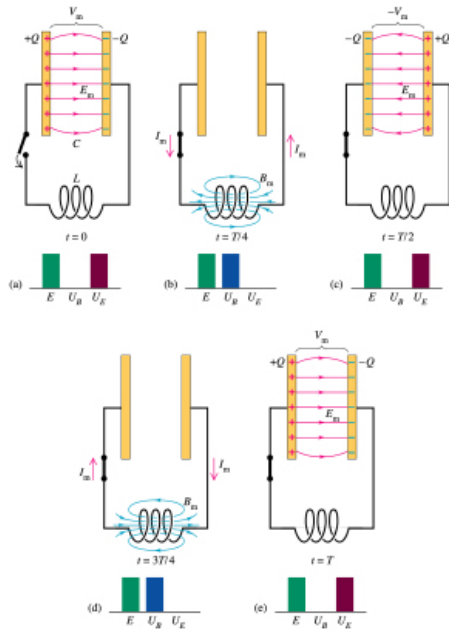
May 16-11:49 AM

Energi i elektriske og magnetiske felt



May 20-10:20 AM

LC-krets



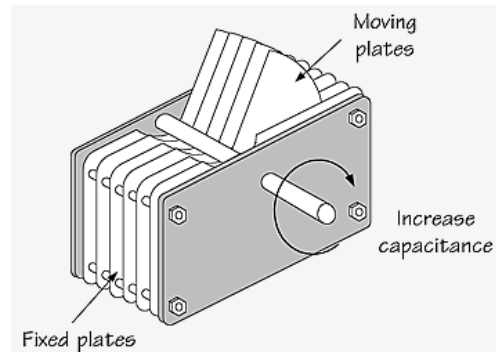
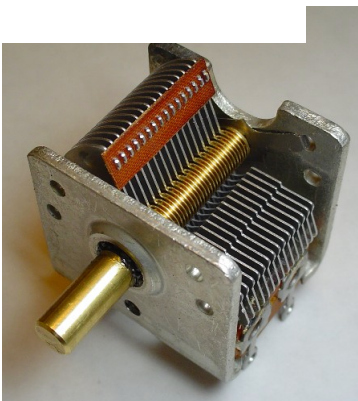
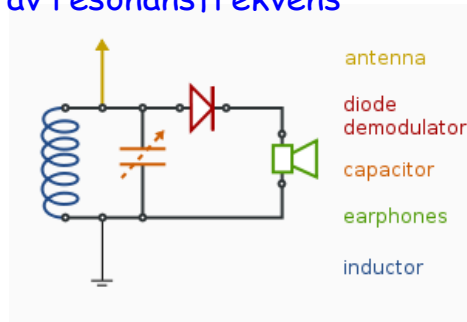
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<http://phet.colorado.edu/en/simulation/circuit-construction-kit-ac>



May 24-11:37 AM

Variabel kondensator for justering av resonansfrekvens



May 16-10:57 AM

Oppsummering av EM, men på en ny måte

① Coulomb
 $\vec{\Phi}_E = \oint \vec{E} \cdot d\vec{A} = q/\epsilon_0$

②
 $\vec{\Phi}_B = \oint \vec{B} \cdot d\vec{A} = 0$

③ Faraday
 $\mathcal{E} = \oint \vec{E} \cdot d\vec{s} = -\dot{\vec{\Phi}}_B(t)$

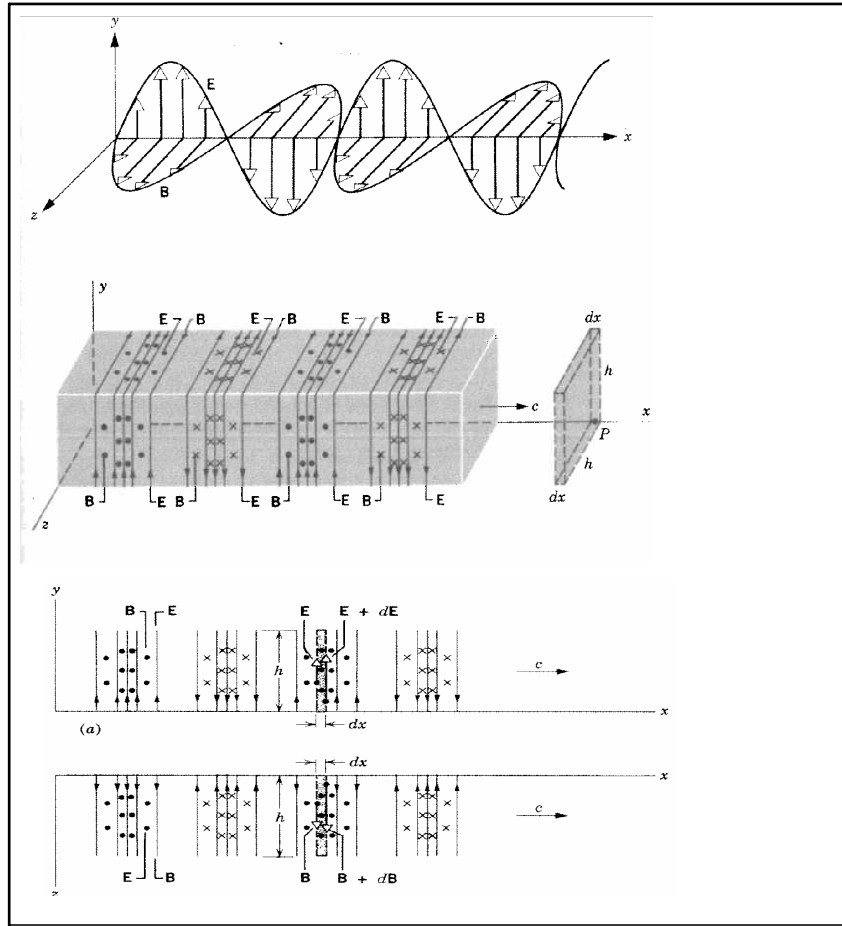
④
 $\oint \vec{B} \cdot d\vec{s} = \mu_0 I + \mu_0 \epsilon_0 \dot{\vec{\Phi}}_E(t)$

May 20-10:24 AM

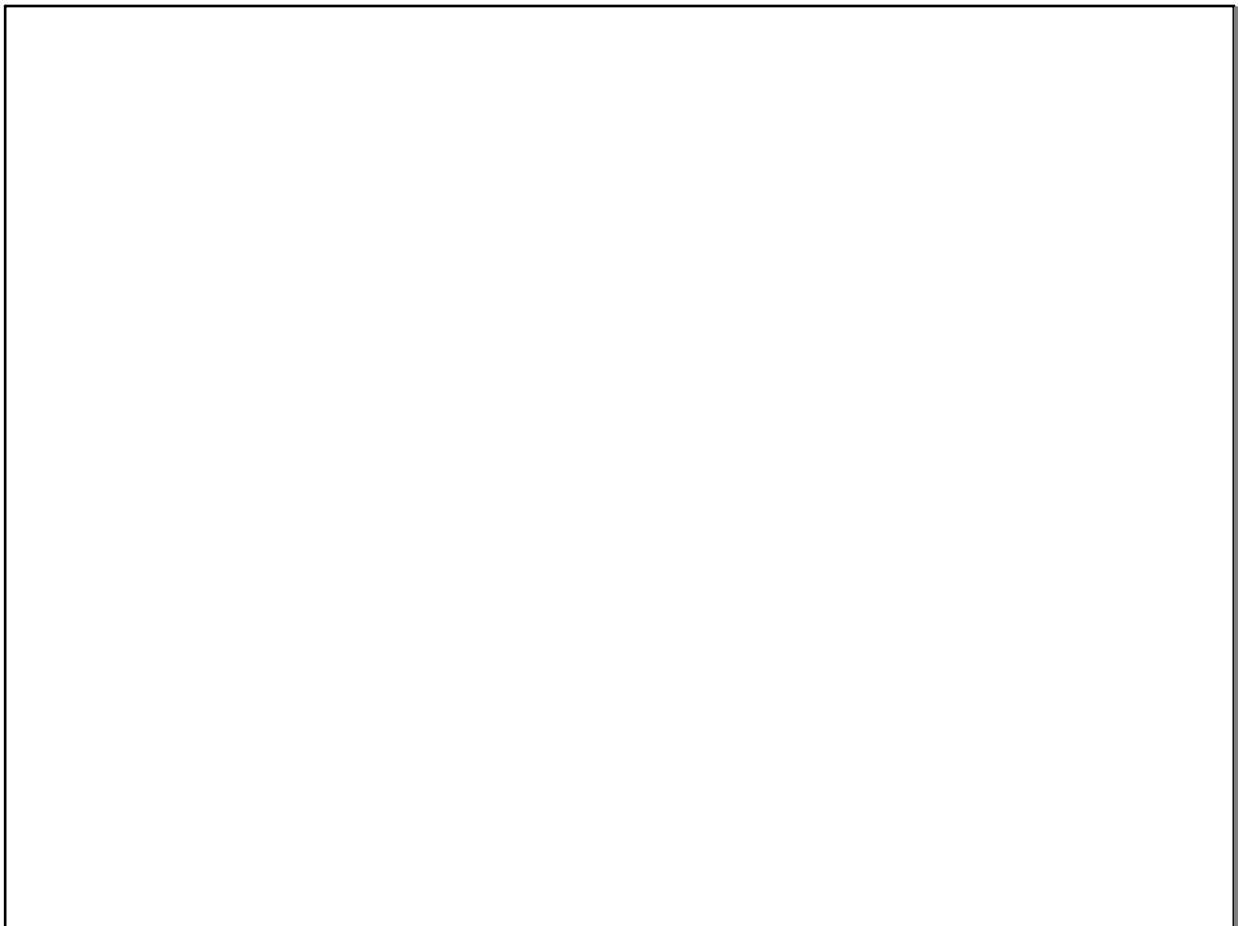
EM bølger

<http://www.amanogawa.com/archive/PlaneWave/PlaneWave-2.html>

May 20-10:25 AM



May 20-11:51 AM



Apr 14-4:31 PM