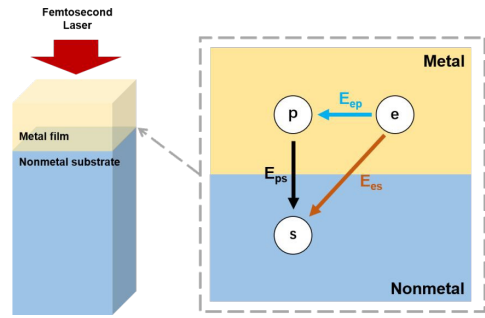


$$C_e \frac{\partial T_e}{\partial t} = \nabla[k_e \nabla T_e] - G(T_e - T_p) + S$$

$$C_p \frac{\partial T_p}{\partial t} = \nabla[k_p \nabla T_p] + G(T_e - T_p)$$

$$C_s \frac{\partial T_s}{\partial t} = \nabla(k_s \nabla T_s)$$



## Interface Resistance Condition

$$-k_e \frac{\partial T_e}{\partial x} \Big|_{x=L} = \frac{T_e - T_s}{R_{es}} \Big|_{x=L}$$

$$-k_p \frac{\partial T_p}{\partial x} \Big|_{x=L} = \frac{T_p - T_s}{R_{ps}} \Big|_{x=L}$$

$$-k_s \frac{\partial T_s}{\partial x} \Big|_{x=L} = -k_e \frac{\partial T_e}{\partial x} \Big|_{x=L} + -k_p \frac{\partial T_p}{\partial x} \Big|_{x=L}$$

