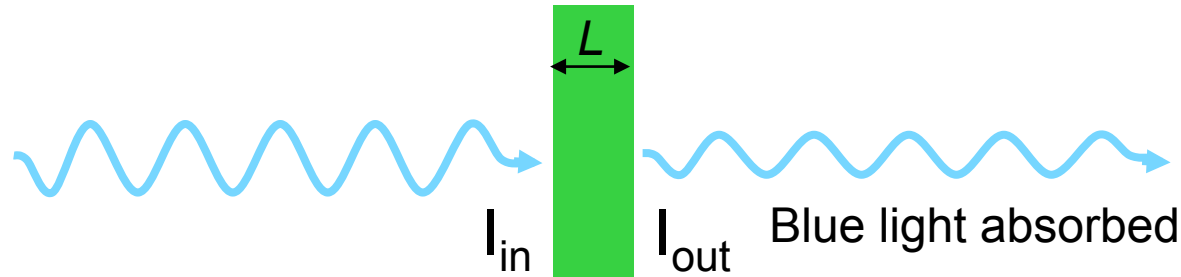


# Fluorophore absorption

Green dye in cuvette



Beer-Lambert law

$$I_{out} = I_{in} \exp(-\epsilon L c)$$

$$I_{absorbed} = I_{in} - I_{out}$$

$I_{in}$ : incident light intensity (in  $\text{W}\cdot\text{cm}^{-2}$ )

$L$ : absorption path length (in cm)

$c$ : concentration of the absorber (in M or  $\text{mol}\cdot\text{L}^{-1}$ )

$\epsilon$ : **molar absorption coefficient** (in  $\text{M}^{-1}\text{cm}^{-1}$  or  $\text{mol}^{-1}\cdot\text{L}\cdot\text{cm}^{-1}$ )

Fluorescein  $\epsilon \sim 70\,000 \text{ M}^{-1}\cdot\text{cm}^{-1}$

eGFP  $\epsilon \sim 55\,000 \text{ M}^{-1}\cdot\text{cm}^{-1}$

