

34. Solution A has a peak around 410nm, which is violet. If it absorbs violet, then the apparent color will be yellow. Solution B has a peak around 490nm, which is blue. If it absorbs blue, then the apparent color will be orange. Solution C has a peak around 590nm, which is yellow. Thus the apparent color will be violet. Solution D has a peak around 720nm, which is red, but has a very broad left shoulder, so the apparent color will be blueshifted from bluegreen to blue.
39. a) We can rearrange Beer's Law from $A_\lambda = \epsilon_\lambda cl$ to $c = \frac{A_\lambda}{\epsilon_\lambda l}$. Substituting in values from the problem yields $\frac{0.427}{6.130 \text{ M}^{-1}\text{cm}^{-1} \times 1.000 \text{ cm}} = 6.97 \times 10^{-5} \text{ M}$.
- b)