

SPECTROPHOTOMETRY

Name:

Group:

Date:

1. Goal of the experiment:

2. Estimation of spectrum of the substance under study - finding out the wavelength sufficient for carrying out spectrophotometric analysis:

Wavelength λ , nm	460	470	480	490	500	510	520	530	540	550
Absorbance										

Make a graph of the spectrum of the substance under study $A = f(\lambda)$

The analytical wavelength:

$\lambda = \dots\dots\dots$

3. Results of measurements of the absorbance A and the transmittance T versus concentration:

	Concentration c	Δc	Absorbance A	ΔA	Transmittance T	ΔT
1						
2						
3						
4						
5						
c_x						

4. Make graphs of the dependencies:

a) $A = f(c)$,

b) $T = f(c)$.

5. The slope a of the best-fit straight line of the dependence $A = f(c)$:

$a \pm \Delta a = \dots\dots\dots$

Value of the correlation coefficient $r = \dots\dots\dots$ (optional)

6. The unknown concentration c_x of the solution:

$c_x \pm \Delta c_x = \dots\dots\dots$

