For General Medicine

Topic of section: Electromagnetic waves. Light polarization

Topic of lab work: Determination of the concentration of the optically active substance by polarizer

Aim: determine the concentration of the optically active substance by polarizer.

Theory:

1. What is the optical activity?
2. How to determine a concentration of optically active substance by polarizer?

Practical part:

Table 1. Results of measurement

Number of measurements, n	Cuvette length L, cm	Concentration C, %	Initial angle	Angle of rotation $\alpha_n=\varphi_n - \varphi_0$	Calculations	
					Rotation constant α_0	Unknown concentration C_x
Initial count	–	–	$\varphi_0=$	–	–	–
1	10	20	$\varphi_1=$	$\alpha_1=$	$\alpha_0 =$	–
2	10	X_1	$\varphi_2=$	$\alpha_2 =$	–	$C_1 =$
3	10	X_2	$\varphi_3=$	$\alpha_3 =$	–	$C_2 =$

Literature:

1. Medical and biological physics for medical students (pages 171-172)