

NAME AND SURNAME UNIVERSITY
--



**GENERAL PHYSICS COMPETITION FOR ENGINEERING STUDENTS
"ION I. AGARBICEANU"**

XI Edition 2023 13 May 2023

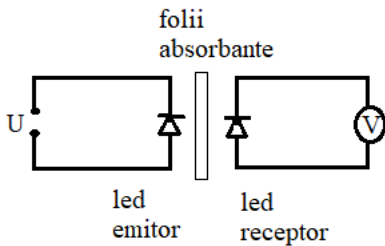
Experimental test, Physical Section 1,

**Determination of the absorption coefficient for a transparent film and its
variation with wavelength**

Scale:

Circuit diagram

5p



Linearization of the equation

5p

From $\Phi = \Phi_0 e^{-\mu d}$

Results $\ln \Phi = \ln \Phi_0 - \mu d$

Table

5

Item No.	d ($\mu\mu$)	U1 (V), $\lambda=560 \text{ v}\mu$	U2(V) $\lambda=590 \text{ v}\mu$	U3(V) $\lambda=640 \text{ nm}$
1	0			
2	75			
3	150			
4	225			
5	300			
6	375			

Graphic representation $\ln\Phi = f(d)$ **and graphical slope estimation** 10p

The attenuation coefficient 5p