

MONOMOLECULAR LAYER

Name:

Group:

Date:

1. Goal of the experiment:

.....

2. Results of measurements of the monomolecular layer diameter d_L :

		1	2	3	4	5	6	7	8	9	10
d_L <i>unit</i>										

a) mean value of the monomolecular layer diameter:

$$\bar{d}_L = \dots\dots\dots$$

b) standard deviation of the mean value:

$$s_{\bar{d}_L} = \dots\dots\dots$$

c) maximum error of the mean value:

$$\Delta \bar{d}_L = \dots\dots\dots$$

Diameter of the monomolecular layer:

$$\bar{d}_L \pm \Delta \bar{d}_L = \dots\dots\dots$$

3. Volume V_d of a single drop of the stearic acid solution:

$$V_d \pm \Delta V_d = \dots\dots\dots$$

4. Dimensions of the stearic acid molecule:

Physical quantity	unit	value	estimated error
Mass concentration of the solution, c			
Molar mass of the stearic acid, M			
Molar concentration of the solution, c_m			
Density of the stearic acid, ρ_{SA}			
Diameter of the stearic acid molecule, d_m			
Length of the stearic acid molecule, l_m			

Conclusions

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