

Experiment number:

Continued from page number:

Group report

Surface tension

➤ **Objective/s:**

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➤ **Formula: (Table)**

Formula Number	Ingredients	Quantities
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➤ **Method:**

(This section should contain any calculations related to prior experiment preparation, if none please write NA and close it)

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➤ **Results:**

➤ **Capillary rise method**

SLS concentration mM	Density measurements		Height measurements		
	Volume (ml)	Weight (g)	h _{surface} (cm)	h _{Capillary} (cm)	h (cm)
0 (Distilled water)					
1					
2					
4					
6					
8					
10					

➤ **Tensiometer**

Sample	Surface tension
Distilled water	
10 mM SLS	

➤ **Calculation:**

- **Knowing that the Using capillary rise method Calculate the surface tension of each solution and arrange your data in the following table**

SLS concentration mM	SLS Log Conc	Density measurements			Height measurements			Radius (cm)	Calculated Surface tension (Dyne/cm)
		Weight (g)	Volume (ml)	Density (g/ml)	h _{surface} (cm)	h _{Capillary} (cm)	Height (cm)		
0								0.08	
1								0.08	
2								0.08	
4								0.08	
6								0.08	
8								0.08	
10								0.08	

- **Insert Excel Sheet (Chart) of:**
 1. *Surface tension Vs. SLS concentration*
 2. *surface tension Vs. log surfactant concentration*

Attach this paper to your report IMMEDIATELY after this page of the report.

➤ **Discussion:**

1. Determine the main part of the Du Nouy tensiometer that was used in our lab.



2. Discuss the effect of surfactant on the surface tension

3. Determine the CMC value of SLS and explain how you determine it.

4. Compare between the calculated surface tension using capillary rise method and the measured surface using Du Nouy tensiometer

➤ **Conclusion:**

(here conclude about: effect of surfactant on the surface tension)
