

RESULTS SHEET FOR EXPERIMENT 3

Make sure you stick this results sheet into your lab notebook

Assigned surfactant:	Tetradecyltrimethylammonium bromide (TTAB)
Stock concentration (mM):	10 mM

Table 1: Conductivity measurements

Volume of stock solution (mL)	Volume of high purity water (mL)	Concentration (mM)	Conductivity ($\mu\text{S/cm}$)
40	0		0.53
36	4		0.51
33	7		0.50
29	11		0.46
25	15		0.44
22	18		0.42
18	22		0.39
15	25		0.36
11	29		0.27
7	33		0.17
4	36		0.09
0	40		0.00

Table 2: Class Results

Surfactant	CMC (mM)	Q/N	ΔG (kJ/mol)
Dodecyltrimethylammonium fluoride (DTAF)	29.8	0.716	-14.9
Tetradecyltrimethylammonium fluoride (TTAF)	7.5	0.715	-20.8
Dodecyltrimethylammonium bromide (DTAB)	15.4	0.725	-17.8
Dodecyltrimethylammonium chloride (DTAC)	22.4	0.567	-14.8
Tetradecyltrimethylammonium chloride (TTAC)	5.40	0.602	-20.7