

Supplementary Material for

Formulation and Optimization of Nanoemulsions using the Natural Surfactant *Saponin* from *Quillaja* Bark

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S1. Particle size distribution in number and volume obtained by DLS.

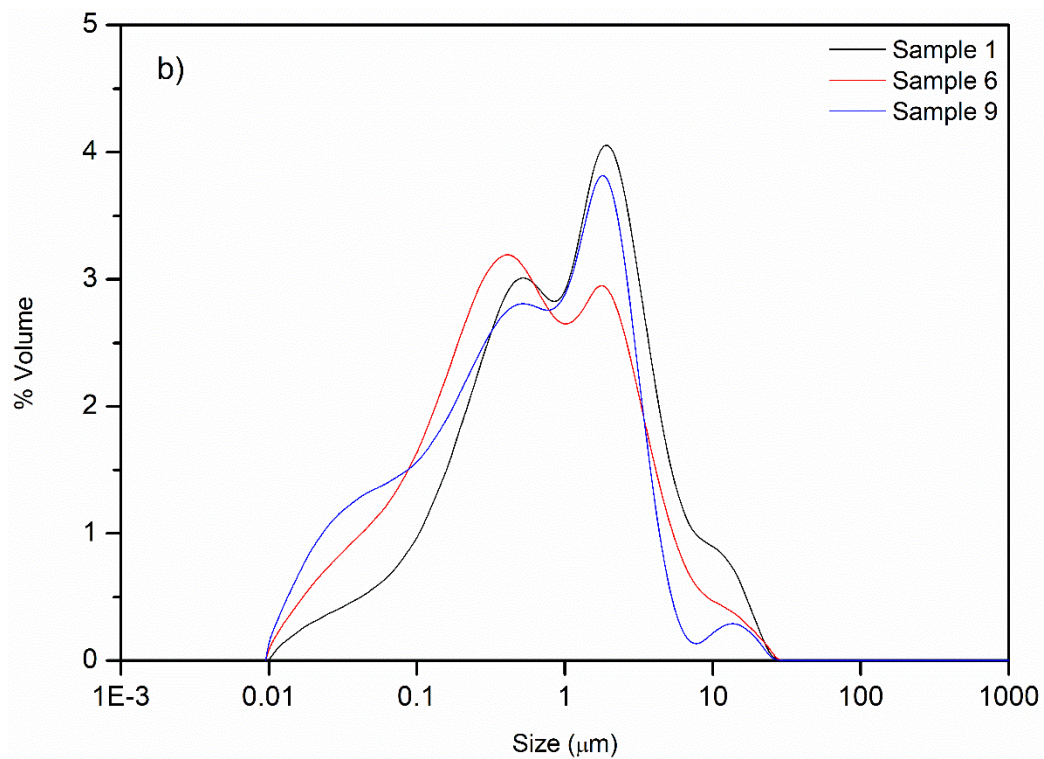
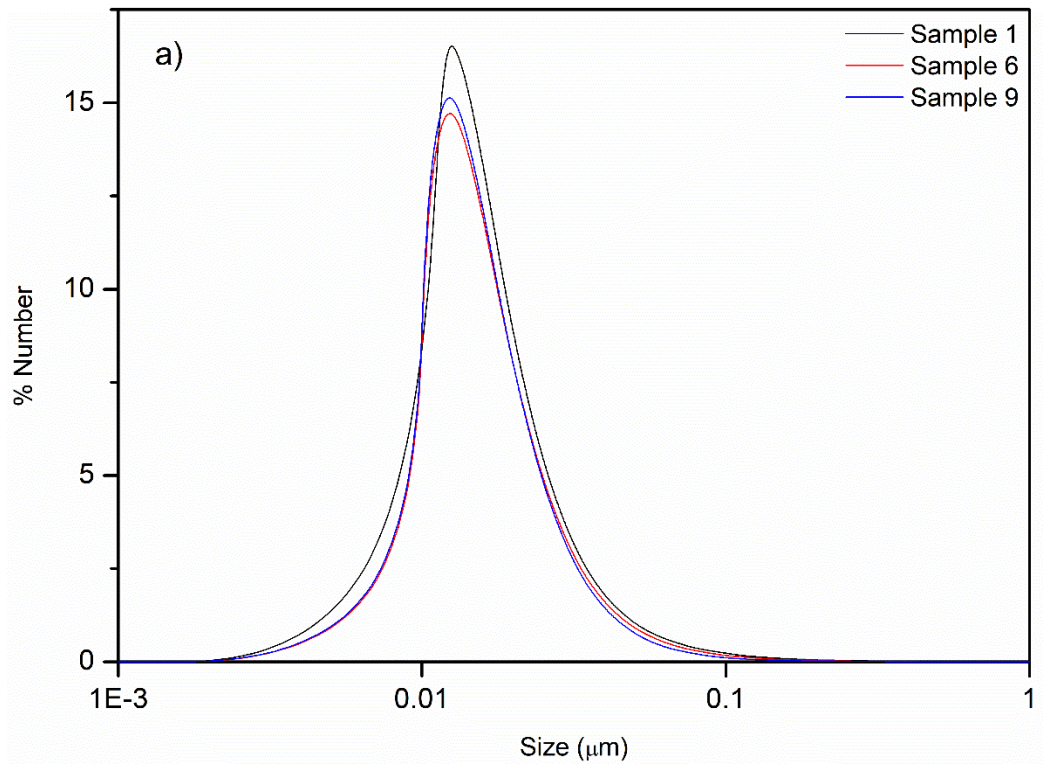


Figure S1.1. Particle size distribution of samples using a O/W of 20/80 (1, 6 and 9) in (a) number or (b) volume.

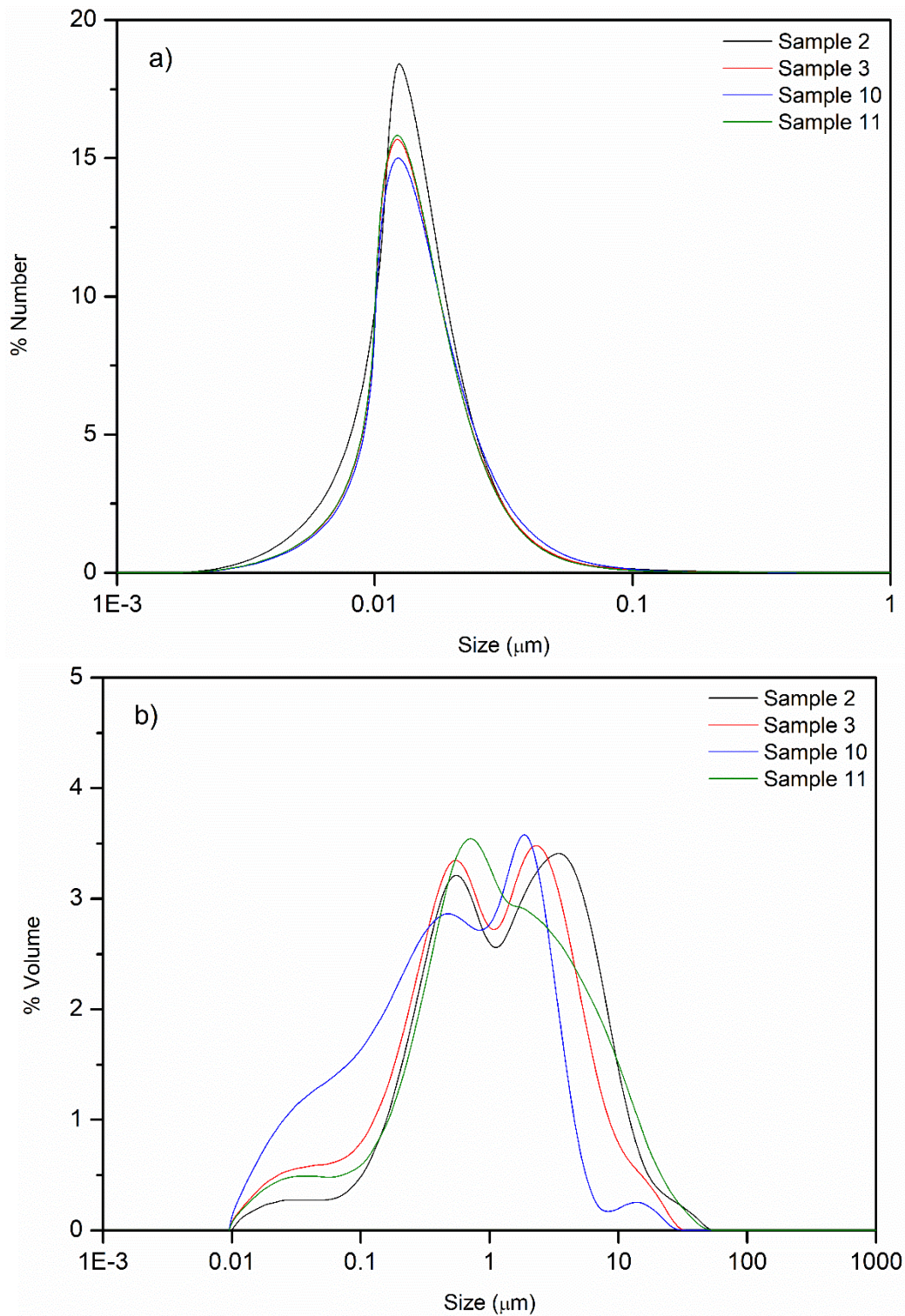


Figure S1.2. Particle size distribution of samples using a O/W of 30/70 (2, 3, 10 and 11) in (a) number or (b) volume.

Table S1. Determined D-Values (D10, D50 & D90) in number and volume.

Sample	D10	D50	D90
Size in Number (nm)			
1	12.3 ± 0.003	17.0 ± 0.023	34.4 ± 0.206
2	12.2 ± 0.002	16.2 ± 0.009	29.5 ± 0.022
3	11.1 ± 0.001	15.6 ± 0.003	29.3 ± 0.029
4	11.2 ± 0.001	15.8 ± 0.004	30.0 ± 0.021
5	11.2 ± 0.001	15.9 ± 0.004	30.7 ± 0.029
6	11.2 ± 0.001	16.1 ± 0.004	32.4 ± 0.036
7	11.2 ± 0.000	15.8 ± 0.001	30.0 ± 0.004
8	11.2 ± 0.001	15.9 ± 0.004	30.8 ± 0.026
9	11.2 ± 0.001	15.9 ± 0.003	30.6 ± 0.025
10	11.2 ± 0.001	15.9 ± 0.004	31.0 ± 0.025
11	11.1 ± 0.000	15.5 ± 0.002	28.7 ± 0.008
Size in Volume (µm)			
1	0.14 ± 0.003	1.09 ± 0.006	5.28 ± 0.053
2	0.23 ± 0.003	1.53 ± 0.004	7.97 ± 0.028
3	0.12 ± 0.002	1.02 ± 0.004	5.61 ± 0.033
4	0.06 ± 0.000	1.02 ± 0.004	4.40 ± 0.035
5	0.05 ± 0.001	0.73 ± 0.005	3.97 ± 0.026
6	0.07 ± 0.000	0.57 ± 0.001	3.76 ± 0.003
7	0.04 ± 0.000	0.68 ± 0.002	2.67 ± 0.005
8	0.04 ± 0.000	0.57 ± 0.002	2.48 ± 0.006
9	0.05 ± 0.000	0.60 ± 0.003	2.99 ± 0.010
10	0.05 ± 0.000	0.58 ± 0.002	3.08 ± 0.010
11	0.16 ± 0.002	1.20 ± 0.003	8.55 ± 0.043