

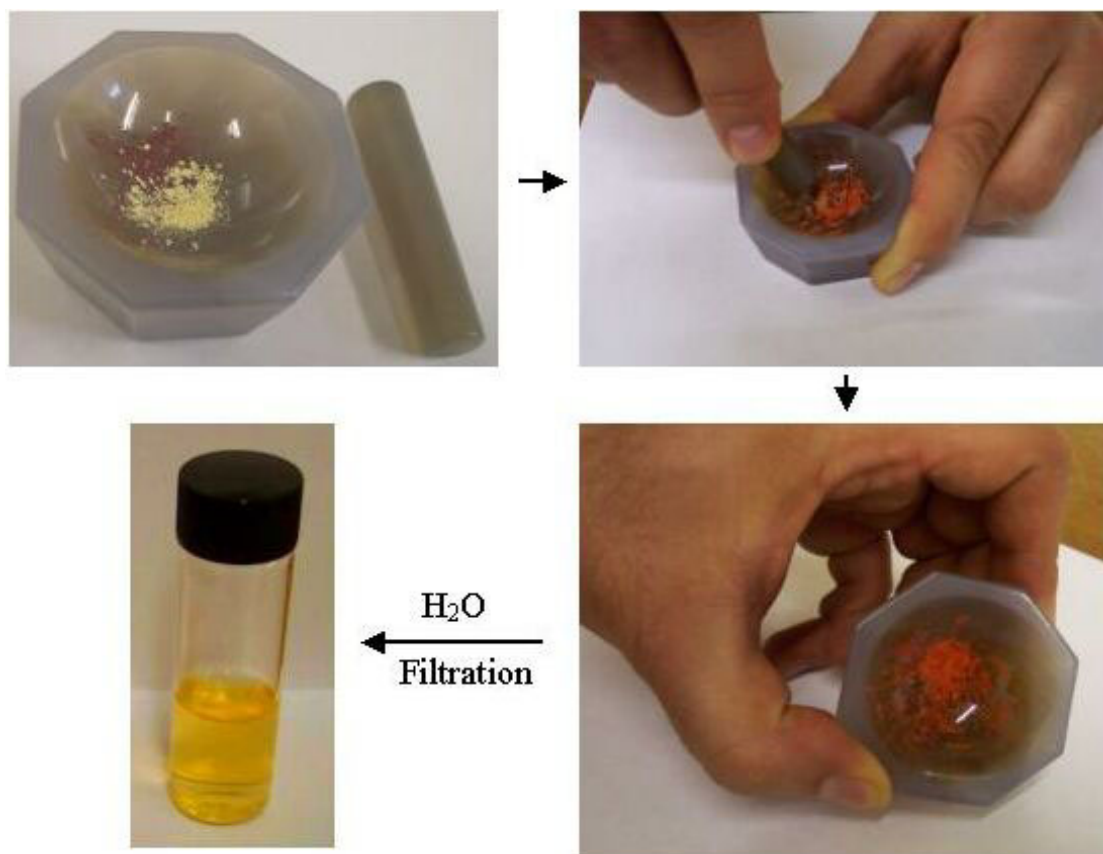


Fig. S1 Grind experiment



Brookhaven Instruments Corp.
Brookhaven Instruments - ZetaPlus Particle Sizing Software Ver. 2.31

Date: Jul 6, 2000

Time: 02:03:18

Batch: 0

Sample ID **PB5a (Run 5)**

Operator ID **IRM**

Notes

Measurement Parameters:

Temperature = 25.0 deg. C
Liquid = Aqueous
Viscosity = 0.890 cP
Ref.Index Fluid = 1.334
Angle = 90.00
Wavelength = 532.0 nm

Runs Completed = 5
Run Duration = 00:02:00
Total Elapsed Time = 00:10:00
Average Count Rate = 3.1 Mcps
Ref.Index Real = 1.590
Ref.Index Imag = 0.000
Dust Filter = On

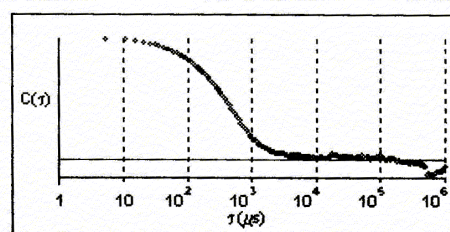
PB5a (Run 5)

Effective Diameter: 225.2 nm

Polydispersity: 0.299

Sample Quality: 1.9/ 1.27%

Elapsed Time: 00:02:00



Correlation Function

Run	Eff. Diam. (nm)	Half Width (nm)	Polydispersity	Sample Quality	
1	243.4	53.6	0.048	0.0 /	1.08%
2	237.2	110.9	0.219	7.2 /	2.17%
3	0.0	0.0	0.000	0.0 /	0.00%
4	229.7	120.6	0.275	0.0 /	3.98%
5	225.2	123.2	0.299	1.9 /	1.27%
Mean	187.1	81.6	0.168	1.8 /	1.70%
Std. Error	46.9	24.0	0.061	1.4 /	0.67
Combined	233.3	112.8	0.234	0.0 /	2.12%

Fig. S2 *p*-Benzylcalix[5]arene sodium sulfonates, compound **9**

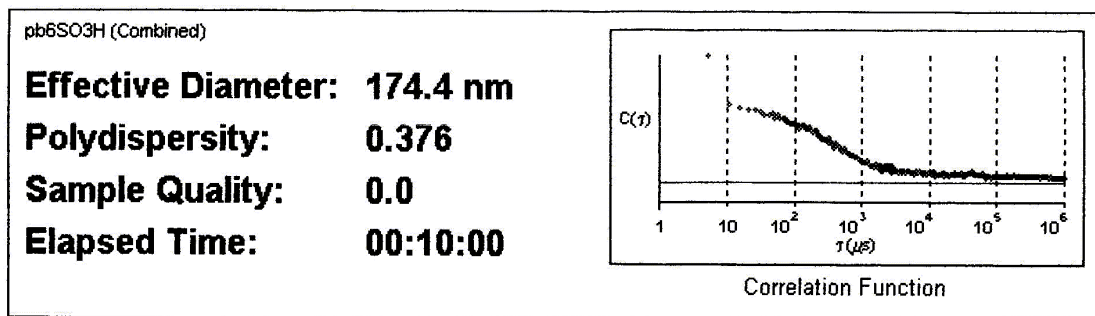


Fig. S3 *p*-Benzylcalix[6]arene sulfonates, compound 6



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Date: Aug 9, 2000

Time: 16:41:59

Batch: 0

Sample ID **pb[5]so3Na/Astaxanthin ~ 2:1 (Run 5)**

Operator ID **PM**

Notes **Skim milk MHT diluted with filtrate 100:1**

Measurement Parameters:

Temperature = 25.0 deg. C
Liquid = Aqueous
Viscosity = 0.890 cP
Ref.Index Fluid = 1.334
Angle = 90.00
Wavelength = 532.0 nm

Runs Completed = 5
Run Duration = 00:02:00
Total Elapsed Time = 00:10:00
Average Count Rate = 709.4 kcps
Ref.Index Real = 1.590
Ref.Index Imag = 0.000
Dust Filter = Off

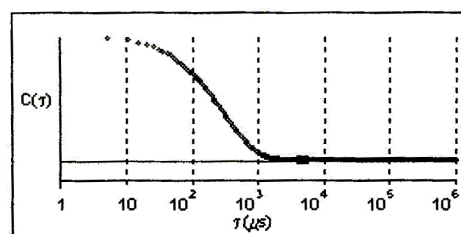
pb[5]so3Na/Astaxanthin ~ 2:1 (Run 5)

Effective Diameter: 133.9 nm

Polydispersity: 0.241

Sample Quality: 8.2

Elapsed Time: 00:02:00



Correlation Function

Run	Eff. Diam. (nm)	Half Width (nm)	Polydispersity	Sample Quality
1	142.3	69.7	0.240	8.0
2	138.9	64.3	0.214	6.5
3	137.5	66.5	0.234	8.2
4	134.6	62.5	0.216	6.8
5	133.9	65.8	0.241	8.2
Mean	137.5	65.8	0.229	7.5
Std. Error	1.5	1.2	0.006	0.4
Combined	137.2	65.8	0.230	7.1

Fig. S4 *p*-Benzylcalix[5]arene sodium sulfonates, compound **9** complex with asthaxantin.



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Date: Aug 10, 2000

Time: 20:31:16

Batch: 0

Sample ID **pb[6]S03Na/astaxanthin (Combined)**
Operator ID **PM**
Notes **Skim milk MHT diluted with filtrate 100:1**

Measurement Parameters:

Temperature = 25.0 deg. C
Liquid = Aqueous
Viscosity = 0.890 cP
Ref.Index Fluid = 1.334
Angle = 90.00
Wavelength = 532.0 nm

Runs Completed = 5
Run Duration = 00:02:00
Total Elapsed Time = 00:10:00
Average Count Rate = 50.0 kcps
Ref.Index Real = 1.590
Ref.Index Imag = 0.000
Dust Filter = Off

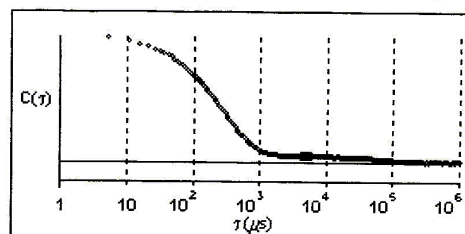
pb[6]S03Na/astaxanthin (Combined)

Effective Diameter: 129.0 nm

Polydispersity: 0.218

Sample Quality: 0.0

Elapsed Time: 00:10:00



Correlation Function

Run	Eff. Diam. (nm)	Half Width (nm)	Polydispersity	Sample Quality
1	133.9	56.0	0.175	0.0
2	130.4	61.6	0.223	6.3
3	142.0	63.2	0.198	0.0
4	124.3	59.3	0.227	4.9
5	121.5	55.2	0.207	3.3
Mean	130.4	59.1	0.206	2.9
Std. Error	3.6	1.5	0.009	1.3
Combined	129.0	60.3	0.218	0.0

Fig. S5 *p*-Benzylcalix[6]arene sodium sulfonates, compound **10** complex with astaxanthin.

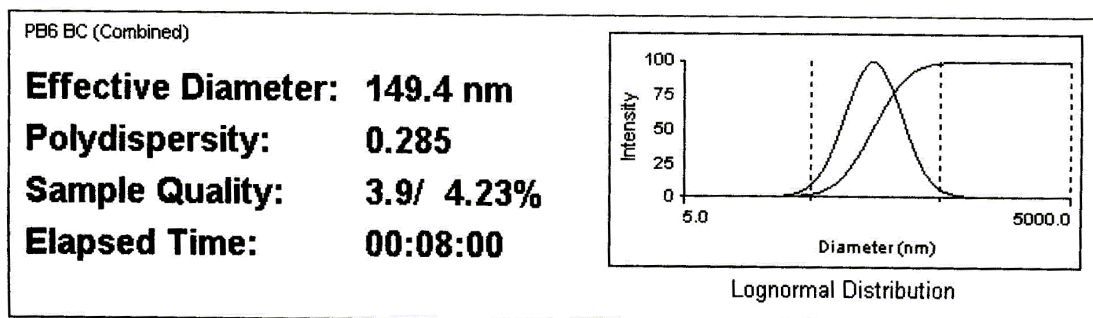


Fig. S6 *p*-Benzylcalix[6]arene sodium sulfonates, compound **10** complex with *trans*- β -carotene.