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APPENDIX

1. Electrophoretic Mobility Data

pH	The electrophoretic mobility (EM) (micron-cm/volts-cm)										
	1	2	3	4	5	6	7	8	9	10	Avg
1.3	0.557	0.684	0.407	0.51	0.588	0.497	0.623	0.604	0.522	0.721	0.571
3	0.319	0.434	0.15	0.438	0.499	0.381	0.497	0.538	0.317	0.243	0.382
5	-0.41	-0.3	-0.48	-0.23	-0.78	-0.43	-0.4	-0.5	-0.61	-0.49	-0.462
7	-0.65	-0.38	-0.72	-0.52	-0.51	-0.83	-0.58	-0.56	-0.43	-0.62	-0.579
9	-0.77	-0.68	-0.82	-0.66	-0.8	-1.00	-0.82	-0.59	-0.77	-0.51	-0.742
11	-0.99	-0.82	-1.32	-0.9	-0.8	-0.98	-1.03	-0.74	-0.76	-0.8	-0.914

2. SDS Adsorption Isotherm on Latex Particle

2.1 The data of SDS adsorption isotherm at pyrrole concentration of 0 mM.

Initial concentration of SDS (μM)	Equilibrium concentration of SDS (μM)	Adsorbed SDS ($\mu\text{moles}/\text{cm}^2$)
4000	3477.00	0.75
6000	4239.55	2.54
8000	4877.16	4.50
10000	5693.02	6.21
13000	6444.99	9.45
16000	6460.19	13.76
19000	6427.80	18.13
28000	6571.13	30.91
32000	7859.09	34.82
35000	8111.20	38.78
41000	8374.94	47.05
50000	8889.59	59.29

2.2 The data of SDS adsorption isotherm at pyrrole concentration of 10 mM.

Initial concentration of SDS (μM)	Equilibrium concentration of SDS (μM)	Adsorbed SDS ($\mu\text{moles/cm}^2$)
6667	6089.54	0.83
8667	6453.99	3.19
10667	6796.17	5.58
12667	6711.98	8.59
14667	6844.23	11.28
16667	6799.26	14.23
18667	7874.00	15.57
20000	6922.24	18.86
21333	7351.28	20.17
23333	7315.69	23.10
27333	8634.87	26.97
33333	15309.97	25.99

2.3 The data of SDS adsorption isotherm at pyrrole concentration of 20 mM.

Initial concentration of SDS (μM)	Equilibrium concentration of SDS (μM)	Adsorbed SDS ($\mu\text{moles/cm}^2$)
6667	5162.84	2.17
8667	6556.23	3.04
10667	6373.91	6.19
126667	6180.84	9.35
146667	6819.72	11.32
166667	6524.40	14.63
186667	6750.44	17.19
21333	6865.32	20.87
23333	6971.91	23.60
27333	7597.83	28.46
33333	11826.59	31.02

2.4 The data of SDS adsorption isotherm at salt concentration of 0.3 M.

The initial pyrrole concentration was 10 mM.

Initial concentration of SDS (μM)	Equilibrium concentration of SDS (μM)	Adsorbed SDS ($\mu\text{moles/cm}^2$)
16667	951.78	22.66
20000	960.67	27.46
21333	1066.34	29.23
24000	1200.69	32.88
25333	1010.47	35.08
26667	987.27	37.04
28000	1001.79	38.94
29333	1018.89	40.84

2.5 The data of SDS adsorption isotherm at salt concentration of 0.6 M.

The initial pyrrole concentration was 10 mM.

Initial concentration of SDS (μM)	Equilibrium concentration of SDS (μM)	Adsorbed SDS ($\mu\text{moles/cm}^2$)
166667	778.79	22.91
20000	633.45	27.93
21333	597.73	29.91
226667	604.77	31.82
24000	615.22	33.73
25333	599.69	35.67
266667	619.78	37.57
28000	624.74	39.48
29333	649.88	41.37

3. Pyrrole Adsorption on Latex Particle

3.1 The data of pyrrole adsorption

The initial pyrrole concentration was 10 mM.

Equilibrium concentration of SDS (μM)	Equilibrium concentration of pyrrole (μM)	Adsorbed SDS ($\mu\text{moles/cm}^2$)
3870	5354.54	10.05
5955	4915.38	11.00
7822	4091.48	12.78
9867	4179.91	12.59
11366	4274.80	12.39
13982	4218.95	12.51
16018	4161.25	12.63
20412	4085.13	12.80
18023	4127.01	12.71

3.2 The data of pyrrole adsolubilization at salt concentration of 0.3 M.

The initial pyrrole concentration was 10 mM.

Equilibrium concentration of SDS (μM)	Equilibrium concentration of pyrrole (μM)	Adsorbed SDS ($\mu\text{moles/cm}^2$)
95.78	7097.48	6.28
960.67	3195.65	14.72
1066.30	3238.61	14.63
1010.50	3199.33	14.71
1001.80	3183.65	14.75

3.3 The data of pyrrole adsolubilization at salt concentration of 0.6 M.

The initial pyrrole concentration was 10 mM.

Equilibrium concentration of SDS (μM)	Equilibrium concentration of pyrrole (μM)	Adsorbed SDS ($\mu\text{moles/cm}^2$)
633.45	3451.08	14.17
604.77	3395.27	14.29
599.69	3207.41	14.69
624.74	3014.01	15.11

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