

**Sulfur nanoparticles stabilized in the presence of water-soluble polymers**

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**Table S1** Change in the size of sulfur particles (diameter, nm / integral intensity, %, see Figure 1) from the measurement time, depending on the molecular weight (MW) and concentration (C) of PVP.

Time, minutes	MW = 10000, C = 1%	<MW> = 49000, C = 1%	MW = 360000, C = 1%	MW = 1000000, C = 1%	MW = 10000, C = 2%	MW = 10000, C = 3%	MW = 360000, C = 2%
0*	2.772/59.5 98.50/36.8 2448/3.7	12.23/49.4 4.927/35.4 268.1/8.2 2240/7.0	28.40/97.3 2209/2.3	18.21/78.9 122.8/19.4 2314/1.7	3.057/49.9 70.1/41.5 2586/8.6	3.063/71.1 156.5/25.8 2424/3.1	15.43/82.2 130.8/16.0 2140/1.8
2	2.168/57.6 79.08/37.1 2375/5.3	6.163/79.0 36.16/17.0 2417/79.0	28.15/93.5 5.277/4.5 2384/2.0	18.31/82.1 194.6/17.9	124.1/51.5 2.984/44.7 2517/3.7	3.080/74.1 174.5/22.2 1757/3.7	15.38/88.2 625.5/11.8
10	2.425/61.2 65.79/33.6 2203/5.2	163.8/93.0 6.757/7.0	24.33/92.4 584.6/7.6	27.76/98.7 2367/1.3	147.1/44.8 3.091/44.7 32.42/7.0 2380/3.5	2.979/67.1 92.78/25.5 2196/7.4	15.29/87.9 312.4/12.1
15	2.241/53.2 77.78/37.6 12.87/9.2	206.7/100	37.97/97.2 2065/2.8	18.53/84.9 136.5/9.8 2456/5.3	3.418/47.9 91.39/32.6 0.752/10.0 2247/9.5	2.523/68.9 95.86/24.5 6.549/6.6	15.21/71.8 244.0/21.8 1956/6.3
30	180.8/93.8 2.825/6.2	237.1/93.5 8.162/5.1 3.374/1.4	24.56/57.9 275.6/42.1	26.26/76.9 442.0/23.1	183.0/100	2.869/66.2 136.5/29.3 2038/4.4	11.20/43.0 221.2/40.5 24.97/16.5
60	178.0/100	296.6/100	372.2/83.9 23.06/13.4 8.142/2.6	403.9/89.6 14.65/10.4	281.8/100	295.9/91.3 2.782/8.7	451.1/52.1 13.24/41.7 55.82/6.2

\*) The first measurement is taken as a reference point (sample preparation takes ~2 min).