

Supporting Information

Micromechanics of temperature sensitive microgels: Dip in Poisson ratio near the LCST

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Table of Contents

Capillary micromechanics measurements

- | | |
|--|-----|
| 1. Capillary micromechanics measurements for pNIPAM particles of 1/36 crosslinker to monomer ratio | S-2 |
| 2. Capillary micromechanics compressive modulus measurements for pNIPAM particles of 1/36 crosslinker to monomer ratio | S-3 |
| 3. Capillary micromechanics shear modulus measurements for pNIPAM particles of 1/36 crosslinker to monomer ratio | S-4 |
| 4. Capillary micromechanics measurements for pNIPAM particles of 1/14 crosslinker to monomer ratio | S-5 |
| 5. Capillary micromechanics compressive modulus measurements for pNIPAM particles of 1/14 crosslinker to monomer ratio | S-6 |
| 6. Capillary micromechanics shear modulus measurements for pNIPAM particles of 1/14 crosslinker to monomer ratio | S-7 |

T(°C)	# Measurements	# Particles	K (Pa)	±Kerror	G (Pa)	±G error	Poisson Ratio
22.5	3	1	10400	1048	1700	155	0.42
25	7	1	11400	1168	2100	215	0.41
27	3	1	10400	1048	3500	325	0.35
28	3	1	15400	948	4000	400	0.38
29	3	1	12340	1980.8	3700	255	0.36
30	5	2	11400	1368	3542	331	0.36
31	6	2	9400	1128	3920	788	0.32
32	6	2	23400	2808	5850	1077	0.38
32.2	6	2	15400	2848	5850	877	0.31
32.4	7	3	9400	2128	5000	750	0.27
32.8	3	1	9400	2128	6000	900	0.24
32.9	6	2	8400	1508	6200	930	0.20
33	3	1	7100	1052	6000	900	0.17
33.1	6	2	7500	900	6100	1915	0.18
33.2	7	3	7000	1340	6100	1915	0.16
33.5	2	1	11000	1720	6500	1975	0.25
33.6	1	1	11300	1656	6500	1975	0.26
33.7	3	1	16000	2220	12000	1200	0.20
33.8	3	1	17500	3100	9000	1850	0.28
34	7	3	23500	2820	12000	1800	0.28
34	3	1	33500	4020	21700	3255	0.23
34.5	3	1	50000	6000	15700	1355	0.36
35	3	1	65000	7800	13000	1250	0.40
36	3	1	60000	7200	13000	1550	0.40

T (°C)	#1	#2	#3	#4	#5	#6	#7	<K> (Pa)	±Kerror
22.5	9100	11500	10550					10400	1048
25	13450	12450	15400	9200	9150	8150	11700	11400	1168
27	8950	10500	11850					10400	1048
28	14000	14550	17550					15400	948
29	12850	12550	11500					12340	1980.8
30	12050	10050	12000					11400	1368
31	8050	9300	9600	10750	8450	10500		9400	1128
32	20050	25050	22050	29100	20050	24050		23400	2808
32.2	17500	11750	13450	20050	18350	11050		15400	2848
32.4	12500	7850	9500	9700	9650	7450	9400	9400	2128
32.8	7850	9200	11050					9400	2128
32.9	7100	7350	9950	9100	8550	8400		8400	1508
33	5950	7150	8250					7100	1052
33.1	6400	8550	7900	8350	7500	6550		7500	900
33.2	6000	5550	7550	8150	8450	6450		7000	1340

T (°C)	#1	#2	#3	#4	#5	#6	#7	G (Pa)	±G error
22.5	1550	1680	1864					1700	155
25	1850	2100	1800	1750	2350	2250	2350	2100	215
27	2950	3700	3750					3500	325
28	3550	4050	4350					4000	400
29	3400	3750	4000					3700	255
30	3150	3650	3600	3700	3400			3542	331
31	3100	3360	4100	4150	4250	4900		3920	788
32	4350	5450	6300	6450	6350	5950		5850	1077
32.2	4500	5500	6050	6100	6500	6400		5850	877
32.4	4800	4200	5050	5900	5550	4650		5000	750
32.8	5150	6400	6350					6000	900
32.9	5800	5150	6650	6750	6250	6480		6200	930
33	5250	5950	6600					6000	900
33.1	4150	5350	6100	6750	6850	7250		6100	1915
33.2	4350	5850	6500	6900	6100	6400		6100	1915
33.5	7500	5500						6500	1975
33.6	6500							6500	1975
33.7	13000	11500	11500					12000	1200
33.8	6500	9550	10850					9000	1850
34	9550	11550	13550	14000	15500	10500	9450	12000	1800
34	17550	25500	22000					21700	3255

T (°C)	# Measurements	# Particles	K (Pa)	±K error	G (Pa)	±G error	Poissons ratio
22.5	3	1	14400	1240.8	1800	270	0.44
25	8	2	14400	1248	3000	450	0.40
27	4	1	12400	1488	2500	375	0.40
28	3	1	12400	1428	2500	375	0.40
29	4	1	10340	2368	3000	450	0.36
30	4	1	10400	1888	3542	531.3	0.35
31	4	1	12400	1268	2920	438	0.39
32	6	2	11900	1648	4850	727.5	0.38
32.2	7	2	11400	1112	2850	927.5	0.38
32.4	7	2	7400	660	2500	1075	0.35
32.8	5	2	6400	948	2800	820	0.31
32.9	7	2	5400	900	3200	980	0.25
33	4	2	5100	516	3200	880	0.24
33.1	6	2	5500	1260	3100	765	0.26
33.2	7	2	5400	2100	3600	1240	0.23
33.5	4	2	5000	2400	3500	1025	0.21
33.6	4	2	4300	4200	3500	925	0.18
33.7	4	2	5500	4260	5000	1250	0.15
33.8	4	2	17500	4900	5000	950	0.37
33.9	8	3	20000	7000	5000	350	0.38
34	4	2	27500	7320	6000	1200	0.40
34	4	2	35500	8760	7007	1051.05	0.40
34.2	7	2	40000	12000	10100	1515	0.38
34.5	5	1	50000	1240.8	11700	1755	0.39
34.6	4	1	61000	1248	12000	1800	0.40
35	4	1	73000	1488	13000	1950	0.42
36	4	1	75000	1428	13000	1950	0.42

T(°C)	#1	#2	#3	#4	#5	#6	#7	#8	K (Pa)	±K error
22.5	12500	16050	14550						14400	1240.8
25	11500	17100	13600	12500	15500	18550	12350	14000	14400	1248
27	14100	12500	12850	10300					12400	1488
28	12200	11050	13950						12400	1428
29	8500	11150	12400	9400					10340	2368
30	10400	7850	13500	9650					10400	1888
31	10950	11650	12900	13950					12400	1268
32	12100	9900	14050	11900	12100	11600			11900	1648
32.2	12500	10100	9500	11900	12900	11700	11400		11400	1112
32.4	6800	6500	8200	7500	8450	7000	7500		7400	660
32.8	6700	5200	7100	6750	6100				6400	948
32.9	4500	5150	6650	5650	6050	5250	4800		5400	900
33	4000	5500	6600	4450					5100	516
33.1	4150	5350	6100	6750	6550	4250			5500	1260
33.2	4350	5850	6500	5700	5050	6100	4500		5400	2100
33.5	7100	4500	4250	4100					5000	2400
33.6	4300	3300	6700	3000					4300	4200
33.7	2500	5500	7000	7150					5500	4260
33.8	19250	12500	17900	20550					17500	4900
33.9	17500	16500	23500	24500	24000	18150	17500	18500	20000	7000
34	25150	28000	29100	27900					27500	7320
34	37500	34500	30100	40050					35500	8760
34.2	41000	43000	47000	38000	37650	33600	39600		40000	12000
34.5	51850	55000	47500	42300	55200	48400			50000	1240.8
34.6	55500	57100	64500	67000					61000	1248
35	75750	71300	68500	76500					73000	1488
36	69500	78000	76350	69505	77000	78500	76000		75000	1428

33.6	2800	3100	3650	3350					4300	4200
33.7	3800	4750	5600	5750					5500	4260
33.8	5200	5000	4100	5550					17500	4900
33.9	4100	5050	5400	4750	5450	4850	5350	5050	20000	7000
34	4500	6500	6050	7100					27500	7320
34	7350	6100	6650	7750					35500	8760
34.2	7500	15300	10500	9500	10500	8500	9050		40000	12000
34.5	9350	9650	10300	15500	13550				50000	1240.8
34.6	10500	11000	12000	14500					61000	1248
35	10900	15800	15200	10100					73000	1488
36	10200	13000	14100	14550					75000	1428

T (°C)	#1	#2	#3	#4	#5	#6	#7	#8	G (Pa)	±G error
22.5	1550	2050	1880						14400	1240.8
25	2500	3500	3000	2450	3350	3400	3150	2950	14400	1248
27	2100	2600	2650	2550					12400	1488
28	2700	2100	2600						12400	1428
29	3500	3100	2700	2800					10340	2368
30	3500	3100	3850	3650					10400	1888
31	3000	3350	2500	2900					12400	1268
32	4500	4100	5000	5300	5200	4900			11900	1648
32.2	3200	3500	2600	2550	2450	3000	2900		11400	1112
32.4	2300	2150	3100	2800	2400	2350	2100		7400	660
32.8	2300	2500	3200	2950	2950				6400	948
32.9	3650	2700	2450	3400	3600				5400	900
33	2900	2750	3600	3600					5100	516
33.1	3000	3100	2800	2500	3900	3400			5500	1260
33.2	2750	3200	3300	3900	4100	4150			5400	2100
33.5	3900	3500	2900	3600					5000	2400
33.6	2800	4100	3650	3350					4300	4200
33.7	3800	4750	5600	5750					5500	4260
33.8	5200	5000	4100	5550					17500	4900
33.9	4100	5050	5400	4750	5450	4850	5350	5050	20000	7000
34	4500	6500	6050	7100					27500	7320
34	7350	6100	6650	7750					35500	8760
34.2	7500	15300	10500	9500	10500	8500	9050		40000	12000
34.5	9350	9650	10300	15500	13550				50000	1240.8
34.6	10500	11000	12000	14500					61000	1248
35	10900	15800	15200	10100					73000	1488
36	10200	13000	14100	14550					75000	1428