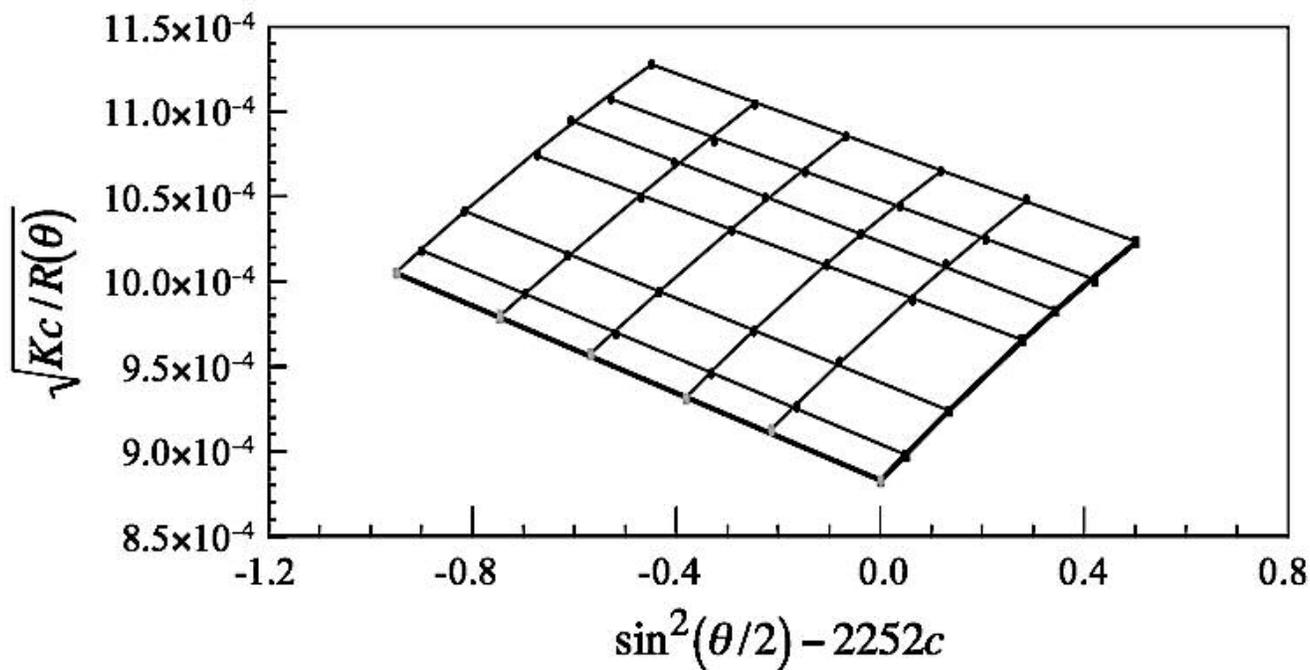
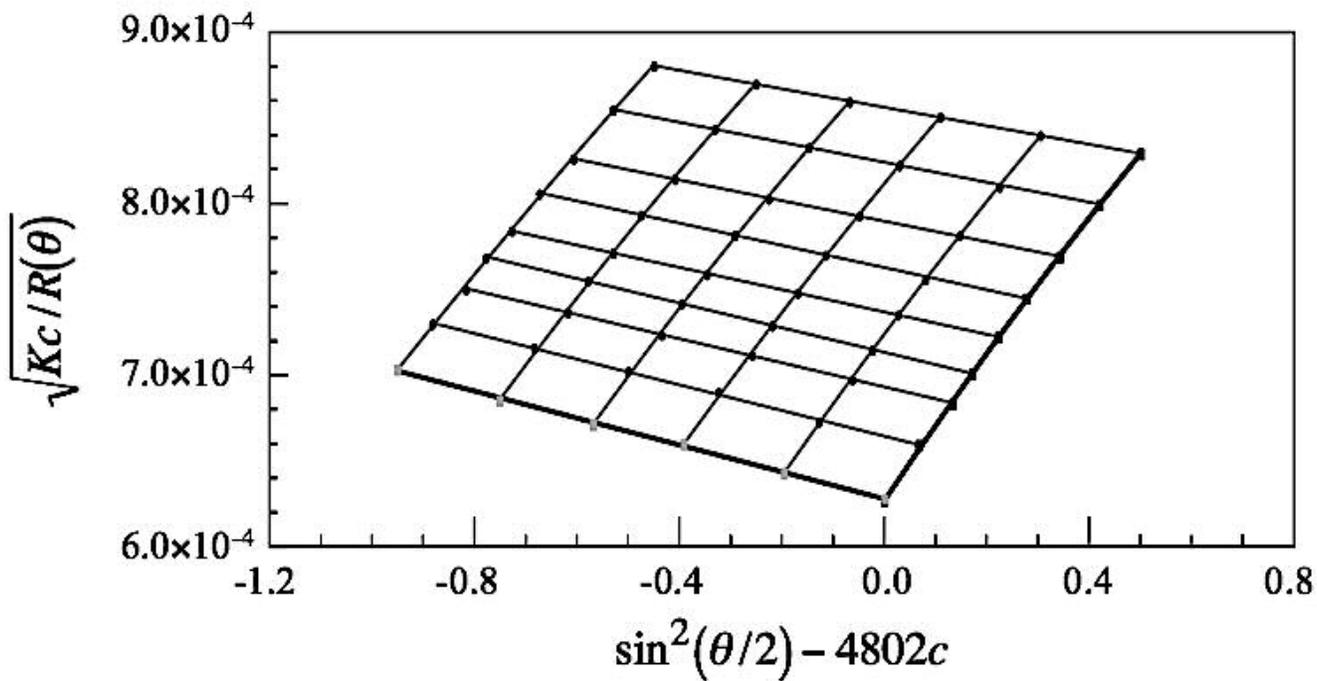


Supporting Information

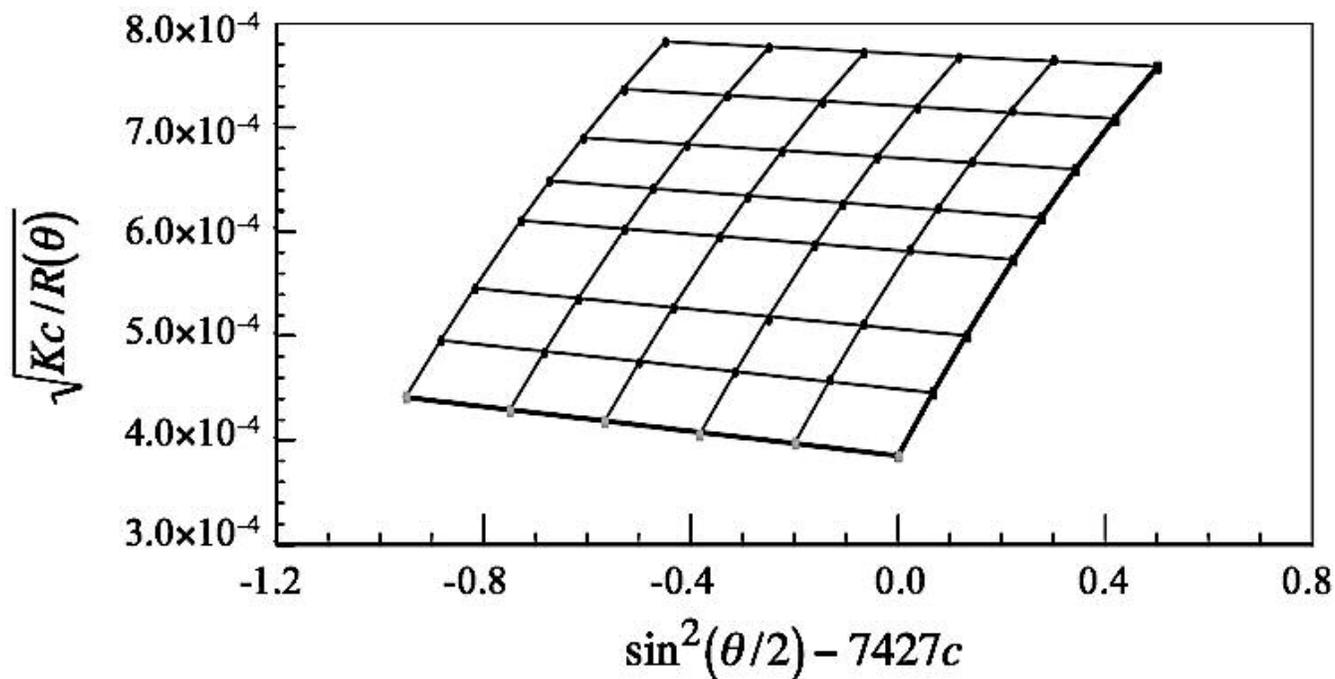
(a)



(b)



(c)



Sample Zimm plots of polystyrene (PS) samples in toluene at room temperature. Here, θ , c , $R(\theta)$, and K respectively denote the detection angle, the concentration of a sample in g/ml, the excess Rayleigh

ratio, and $K = \frac{4\pi^2}{N_A} \frac{n_0^2}{\lambda_0^4} \left(\frac{dn}{dc} \right)^2$ with N_A the Avogadro's number, n_0 the solvent refractive index

($n_0=1.488$ for toluene), λ_0 the vacuum wavelength of incident light, and dn/dc the refractive index increment ($dn/dc=0.106$). Note that a negative “stretch factor” has been used for enhanced

interpretability. We employed a “Berry plot” for (a) 1.28×10^6 g/mol, (b) 2.53×10^6 g/mol, and (c) 6.62×10^6 g/mol polystyrene, since this method of plotting is recommended for polymers with the

molecular weight higher than 1 million g/mol. The actual molecular weight, the radius of gyration, and the second virial coefficient, A_2 for three different PS samples are listed in the table below.

Part No. (Batch No.)	Nominal M_w 10^6 g/mol	Actual M_w 10^6 g/mol	R_g nm	A_2 10^{-4} mol·mL/g ²
F-128	1.09	1.28	43.9	2.32
F-288	2.11	2.53	62.9	2.84
F-550	5.48	6.62	104.8	1.77