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Supporting Information:

Highly transparent electrorheological fluids of silica nanoparticles: the effect of urea modification

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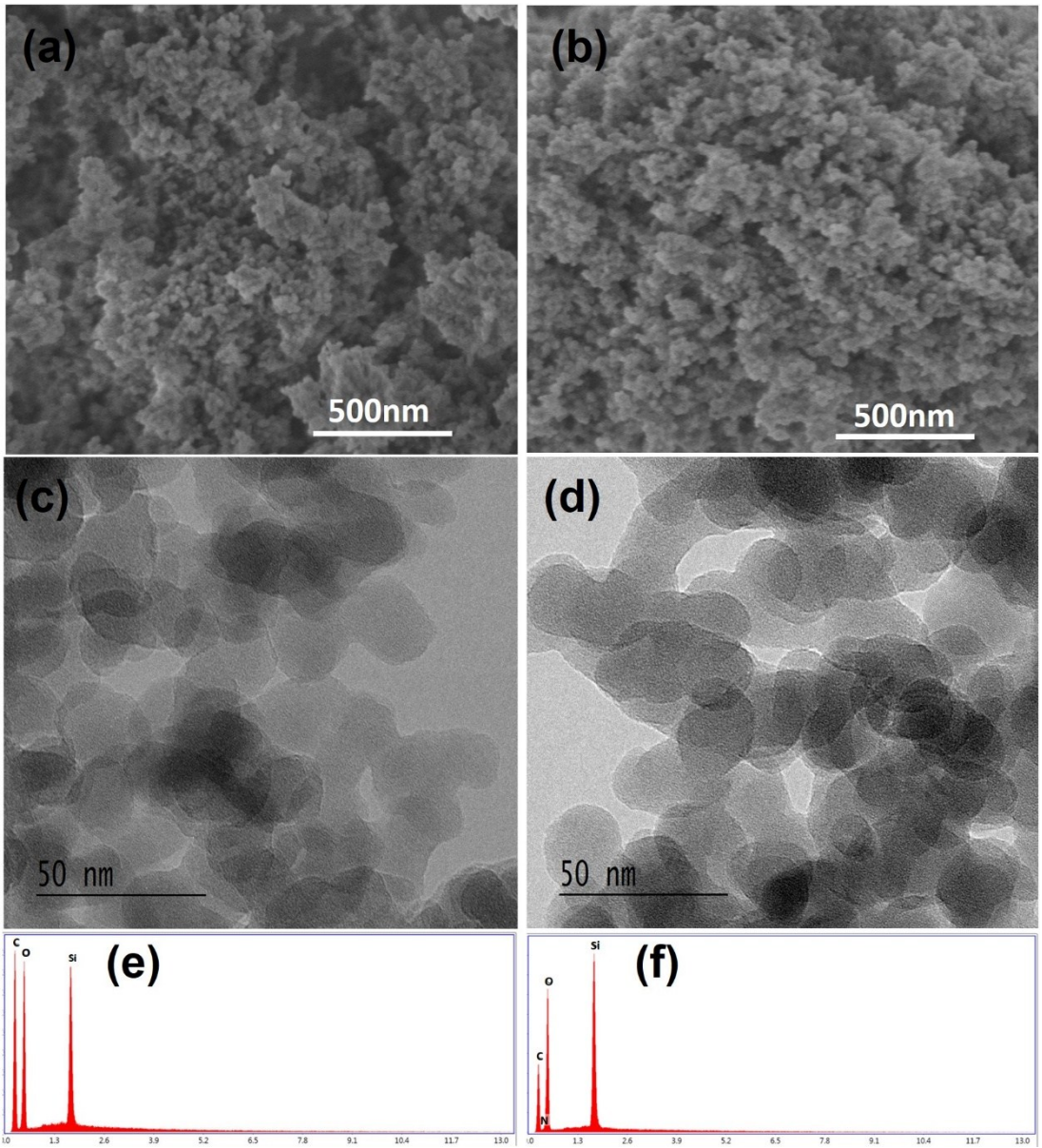

Figure S1 SEM (a, b), TEM (c, d) and EDS (e, f) of the silica particles of S_0 (a, c, e) and S_3 (b, d, f).

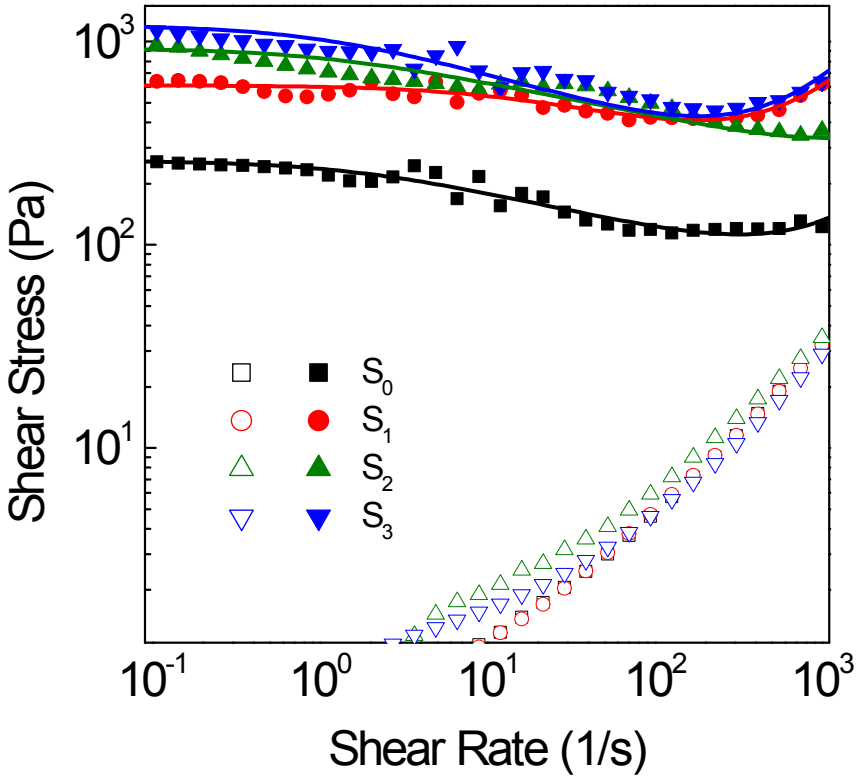

Figure S2 Shear stress as a function of shear rate for each TER fluids at electric fields of 0 and 4.0 kV/mm.

Table S1. Parameters in the equations of CCJ model obtained by fitting the models to the shear stress curves of the TER fluids at various electric fields.

	E(kV/mm)	τ	α	t_1	η_∞	β	t_2
S_0	1	25.7	0.50	0.71	0.016	0.039	0.014
	2	81.3	0.15	0.61	0.011	0.12	0.23
	3	163.6	0.22	0.34	0.012	0.18	0.056
	4	259.6	0.19	0.63	0.012	0.21	0.010
S_1	1	70.0	0.25	0.90	0.010	0.13	0.044
	2	186.3	0.16	0.81	0.012	0.26	0.021
	3	433.0	0.16	0.87	0.012	0.75	0.029
	4	609.4	0.20	0.09	0.014	0.81	0.023
S_2	1	94.2	0.19	0.35	0.0072	0.14	0.80
	2	276.4	0.11	0.36	0.0081	0.14	0.61
	3	606.1	0.17	0.73	0.014	0.61	0.60
	4	928.0	0.17	0.94	0.017	0.26	0.45
S_3	1	105.3	0.098	0.17	0.0086	0.037	0.32
	2	321.5	0.21	0.19	0.012	0.32	0.10
	3	804.0	0.22	0.91	0.021	0.67	0.12
	4	1204.9	0.24	0.97	0.034	0.92	0.071