

ELECTRONIC SUPPLEMENTARY INFORMATION (ESI)

Probing interactions within liquid media *via* a model H-bond donor-acceptor mixture

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Table S1. Recovered Parameters (A_j), Standard Deviations (σ), and Correlation Coefficients (r^2) for Fits of Different Experimental Solvatochromic Parameters (SP) Measured in (HMPA + TFE) mixture to a Redlich–Kister-Type Polynomial Expansion (Equation 1)

SP	A_0	A_1	A_2	A_3	A_4	σ	r^2
E_T^N	0.0750	0.1019	1.3164	−1.7069	–	0.0882	0.9834
π^*	−1.2711	−1.7319	−1.0444	2.1237	2.5112	0.0589	0.9930
α	1.2282	1.4607	1.4523	−5.1162	1.3417	0.0986	0.9947
β	1.9726	−0.3135	−1.9564	0.2283	1.2840	0.2535	0.7426
ANS , λ_{max}^{em}	− 84.000 5	− 32.100 8	− 25.389 7	− 25.3897	− 11.288 4	52.4334	0.9158
TNS , λ_{max}^{em}	− 57.025 3	− 35.683 5	− 17.464 1	− 2.3317	72.0037	6.2648	0.9199
PRODAN , λ_{max}^{em}	− 55.722 0	128.8037	18.7542	− 162.602 8	–	14.4259	0.8973
C-153 , λ_{max}^{em}	− 21.467 5	23.4504	12.3782	− 44.4216	–	8.4285	0.4322
ρ	−0.4086	−0.1285	0.4540	0.2104	−0.7853	0.0346	0.9668
V^E	11.4525	−0.2001	−49.2407	13.0431	63.9091	2.8871	0.8494
η	1.3645	1.4964	4.4796	3.4702	–	0.2490	0.9911
$(\ln \eta)^E$	0.6586	0.6208	2.0263	1.8230	–	0.1206	0.9905
BPP I_M/I_E	− 5.0037	− 3.5832	23.950	7.4125	− 18.881	0.7428	0.9720

Table S2. Values of empirical solvent polarity E_T^N and Kamlet–Taft parameters – dipolarity/polarizability (π^*), HBD acidity (α), and HBA basicity (β) for (HMPA + TFE) mixtures at 25 °C.

x_{TFE}	E_T^N	π^*	α	β
1	0.9236	1.2082	1.0346	-0.0020
0.9	0.8784	1.0645	1.0432	0.1934
0.8	0.8305	0.8186	1.1194	0.4563
0.7	0.7714	0.6996	1.0807	0.5961
0.6	0.7198	0.6795	0.9867	0.8010
0.5	0.6629	0.6996	0.8526	1.0724
0.4	0.5872	0.7397	0.6647	1.0963
0.3	0.5693	0.7793	0.5984	1.0731
0.2	0.5552	0.7990	0.5545	1.0732
0.1	0.5344	0.8186	0.4968	1.0502
0	0.3138	0.8381	0.0188	1.0273