

Supplementary material to

Effects of the polymer molecular weight and type of cation on phase diagrams of polythylene glycol + sulfate salts aqueous two-phase systems

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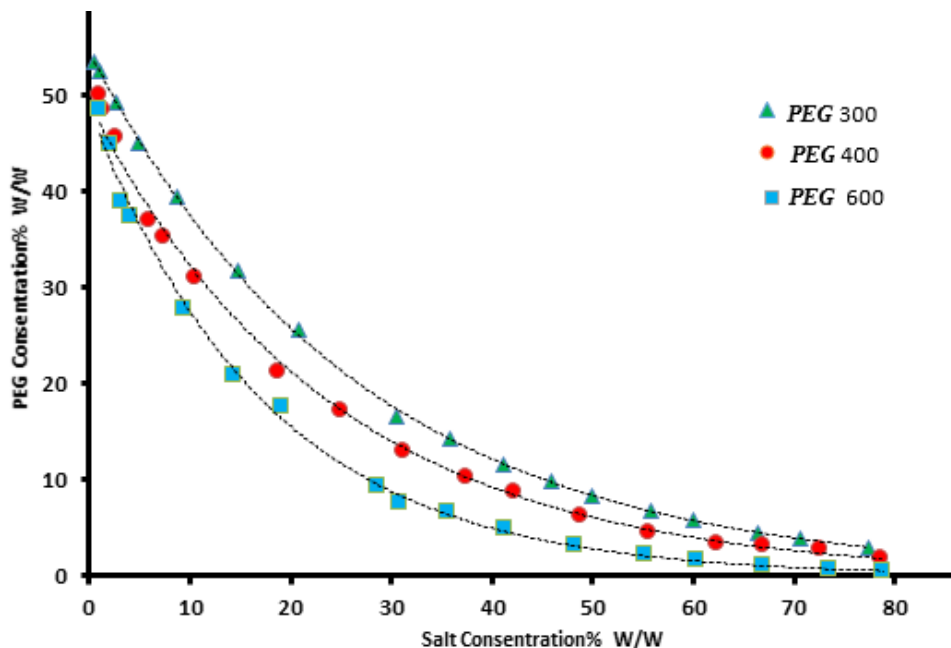


Figure S1. The experimental and correlated binodal curves of PEG 300, 400 and 600 + Magnesium sulfate + water ATPSs. The solid line calculated from equation (3).

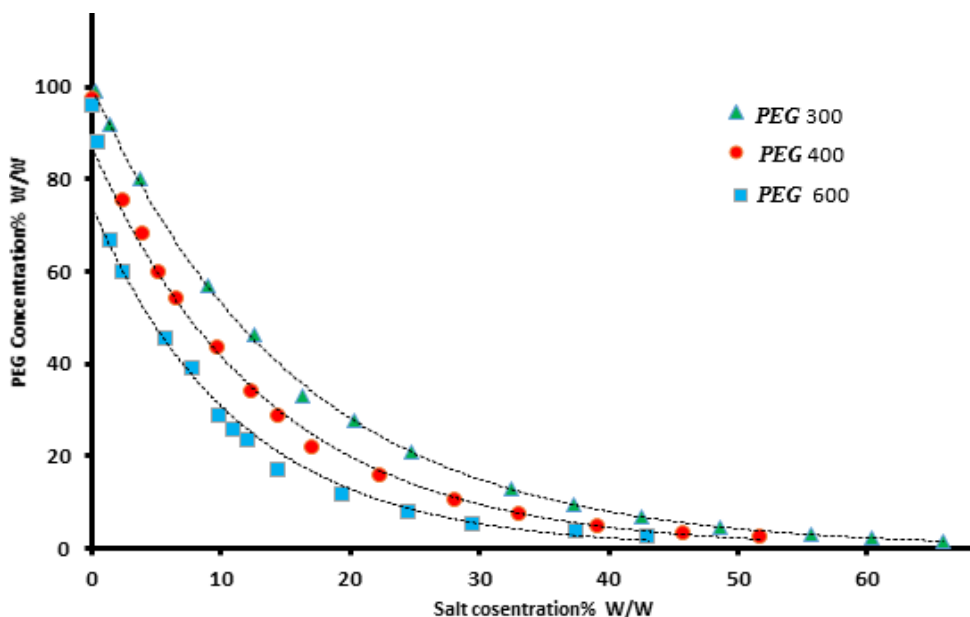


Figure S2. The experimental and correlated binodal curves of PEG 300, 400 and 600 + Aluminum sulfate + water ATPSs. The solid line calculated from equation (3)



Table S1. Density, ρ , and Refractive Index, n_D , for the binary and ternary of PEG (p) + tri-potassium citrate (s)+ water system at 298.15 ± 0.05 K and 100 ± 0.05 kPa at various mass fractions of polymer, w_p and salt, w_s .

$w_p (\pm 0.001) / \% \text{mas}$	$w_s (\pm 0.001) / \% \text{mas}$	$\rho (\pm 0.0001) / \text{kg m}^{-3}$	$n_D (\pm 0.0001)$
PEG 300	Zinc sulfate		
0.05	0.10	1.1899	1.4388
0.10	0.10	1.2885	1.4466
0.15	0.10	1.3588	1.4496
0.20	0.10	1.3855	1.4533
0.25	0.10	1.5577	1.4630
0.00	0.05	1.0255	1.3383
0.00	0.10	1.055	1.3442
0.00	0.15	1.0852	1.3501
0.00	0.20	1.1149	1.3558
0.00	0.25	1.1492	1.3623
0.00	0.30	1.1822	1.3687
0.00	0.00	0.9970	1.3327
0.05	0.00	1.0046	1.3385
0.10	0.00	1.0128	1.3455
0.15	0.00	1.0205	1.3521
0.20	0.00	1.0354	1.3585
0.25	0.00	1.0374	1.3658
0.30	0.00	1.0457	1.3734
1.00	0.00	1.1219	1.4650
PEG 300	Magnesium sulfate		
0.00	0.05	1.0216	1.337
0.00	0.10	1.0473	1.3421
0.00	0.15	1.0728	1.3472
0.00	0.20	1.099	1.3524
0.00	0.25	1.1256	1.3568
0.00	0.30	1.1531	1.3613
0.05	0.15	1.1455	1.3421
0.10	0.15	1.1566	1.3472
0.15	0.15	1.2685	1.3524
0.20	0.15	1.3325	1.3568
0.25	0.10	1.4565	1.3613
PEG 300	Aluminum sulfate		
0.00	0.05	1.0255	1.3383
0.00	0.10	1.055	1.3442
0.00	0.15	1.0852	1.3501
0.00	0.20	1.1149	1.3558
0.00	0.25	1.1492	1.3623
0.00	0.30	1.1822	1.3687
0.05	0.10	1.1899	1.4388
0.10	0.10	1.2885	1.4466
0.15	0.10	1.3588	1.4496
0.20	0.10	1.3855	1.4533
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^a298,15±0.05 K, ^b 100±0.05 kPa