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Table S1. Experimental molar solubility values as the mean of three experiments (± standard deviation) measured for sildenafil citrate in the binary mixtures of PEG 200 and water at different temperatures.

w_1[a]	293.2 K	298.2 K	303.2 K	308.2 K	313.2 K
0.00[b]	0.007494	0.008682	0.010685	0.012893	0.017706
0.10	0.007766	0.009364	0.010914	0.014605	0.017452
0.20	0.008009	0.009712	0.011577	0.015635	0.018521
0.30	0.008381	0.010403	0.012101	0.016594	0.020085
0.40	0.009108	0.011807	0.013887	0.017443	0.021229
0.50	0.010092	0.013125	0.014804	0.018253	0.023603
0.60	0.011696	0.014046	0.016602	0.020205	0.025889
0.70	0.012855	0.015649	0.017888	0.022126	0.028763
0.80	0.012013	0.015125	0.017411	0.021928	0.028461
0.90	0.010928	0.013221	0.015456	0.020680	0.025030
1.00	0.010482	0.011692	0.013266	0.016845	0.019813

[a] w_1 is mass fraction of PEG 200 in the PEG 200 and water mixtures in the absence of sildenafil citrate.
[b] The aqueous solubility data taken from a previous work Ref. 16.

Table S2
Codes for various numerical analyses on the Jouyban-Acree model

Sildenafil citrate concentration → Solvent composition↓	Mole fraction	Molar	Gram/liter
Mole fraction	1	2	3
Mass fraction	4	5	6
Volume fraction	7	8	9

Table S3
Codes for various numerical analyses on the Jouyban-Acree model

Code	J_0	J_1	J_2	*MRD%*
1	997.258	-576.333	1791.123	3.2
2	275.559	-601.565	719.886	3.1
3	275.559	-601.565	719.886	3.1
4	-456.631	-121.249	-245.791	3.5
5	275.652	417.145	152.316	3.4
6	275.652	417.145	152.316	3.4
7	-362.547	-81.721	-260.520	3.4
8	311.892	385.682	62.143	3.3
9	311.892	385.682	62.143	3.3

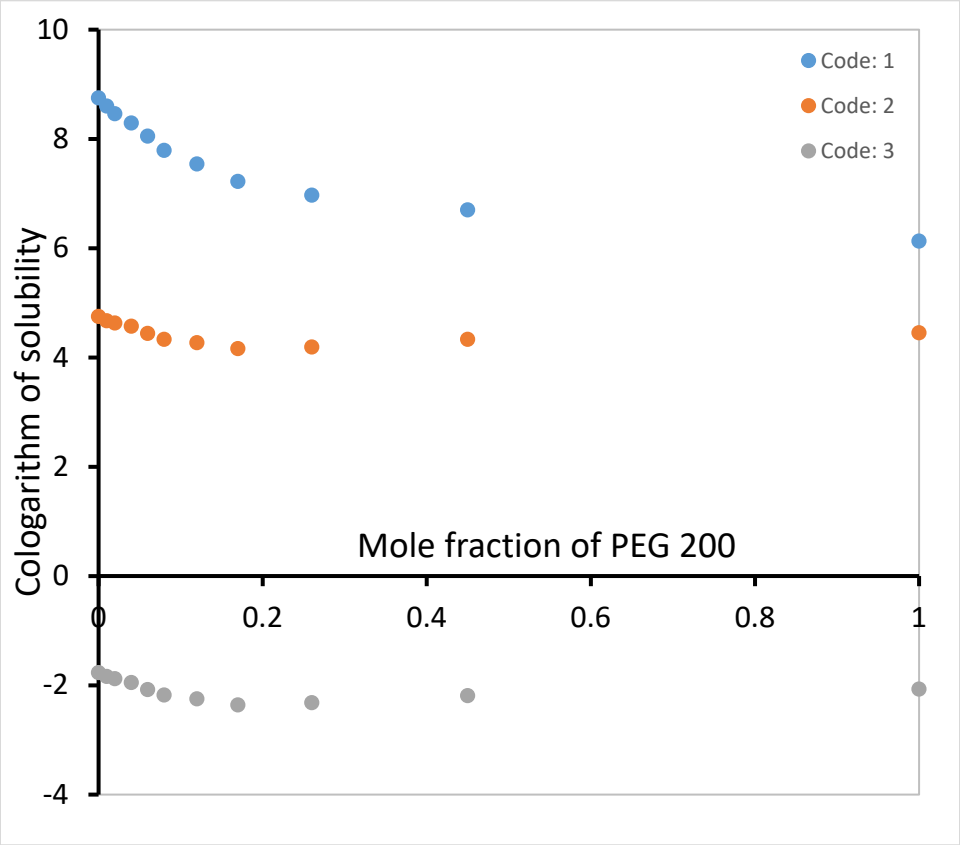

Figure S1. Cologarithms of sildenafil citrate saturated solutions expressed as mole fraction, molar and gram per liter against mole fraction of PEG 200

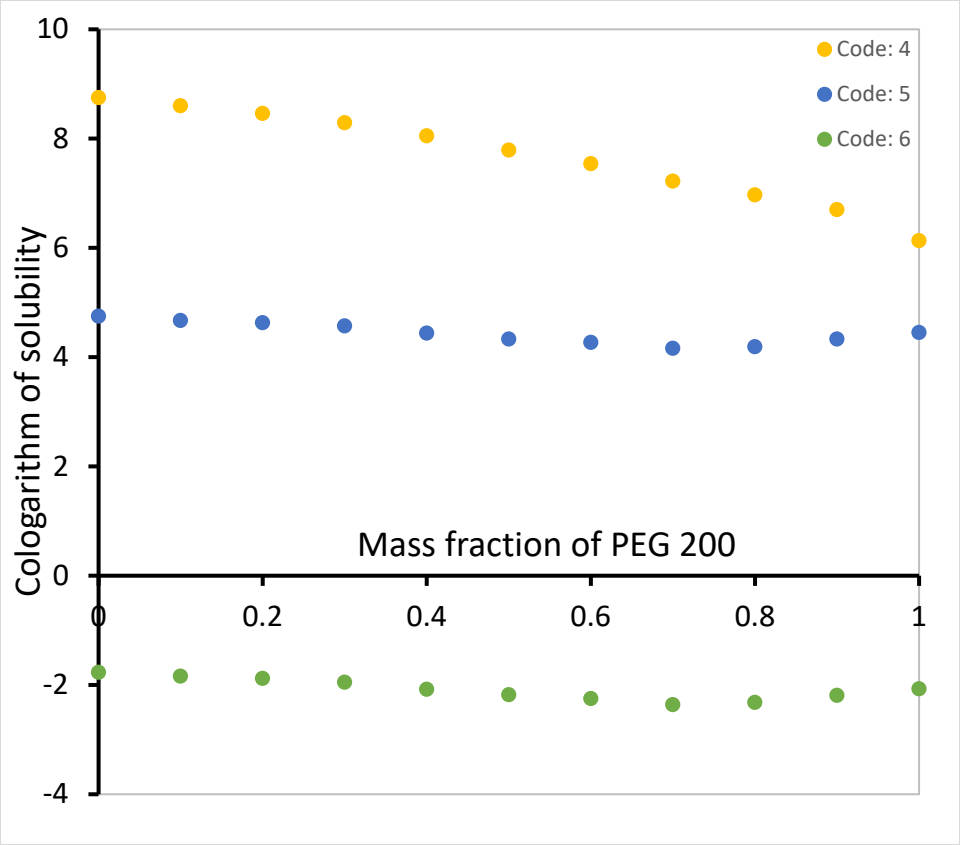

Figure S2. Cologarithms of sildenafil citrate saturated solutions expressed as mole fraction, molar and gram per liter against mass fraction of PEG 200

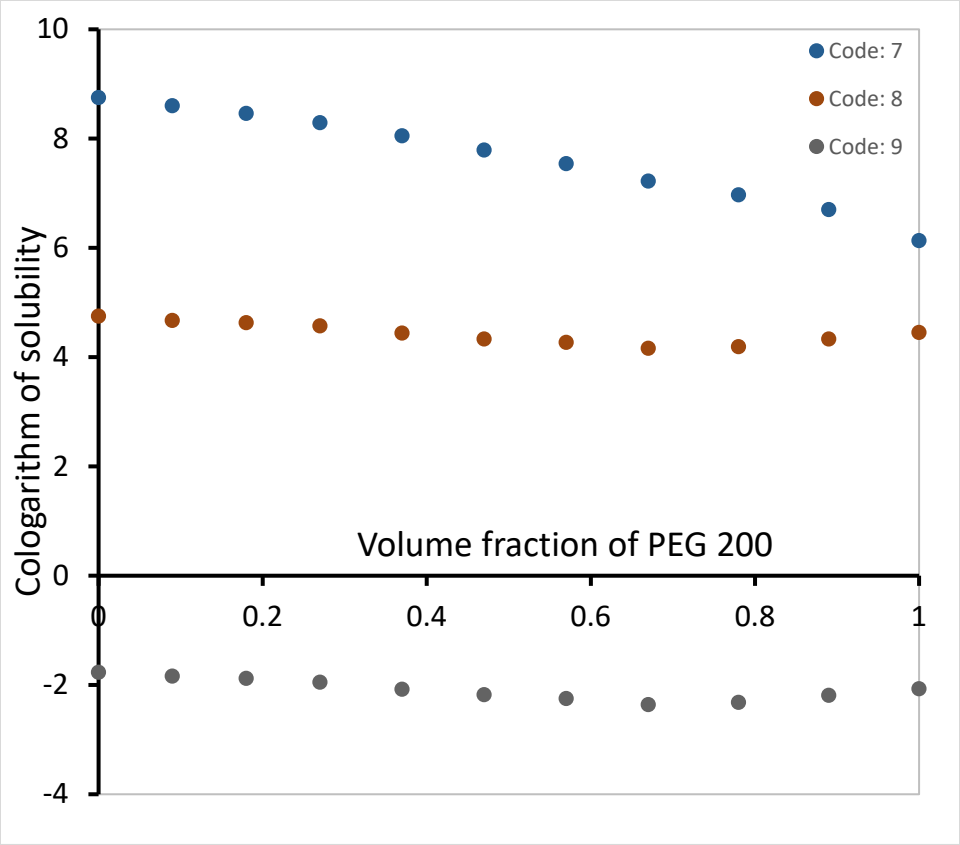

Figure S3. Cologarithms of sildenafil citrate saturated solutions expressed as mole fraction, molar and gram per liter against volume fraction of PEG 200