Electronic Supplementary Material (ESI) for RSC Advances.

Table S1. Release kinetics of DNa and IMC from NLCs in the absence and presence of polymers at 25 °C.

Drug	Polymer	Higuchi		Korsmeyer-peppas		Weibull	
		k_H/ h^{-1}	R^2	n	R^2	β	R^2
DNa	Nil	8.711	0.9539	0.832	0.9784	1.408	0.9943
	PEG	10.48	0.9837	0.601	0.9865	1.203	0.9992
	NaCMC	9.15	0.9828	0.578	0.9848	1.002	0.9972
	LM200	6.09	0.9547	0.934	0.9908	1.265	0.9967
IMC	Nil	5.614	0.9969	0.569	0.9981	0.728	0.9983
	PEG	5.358	0.9902	0.407	0.9928	0.591	0.9940
	NaCMC	5.535	0.9986	0.440	0.9996	0.607	0.9995
	LM200	5.007	0.9982	0.512	0.9983	0.661	0.9992

Concentration of NLCs: 1 mM, polymer: 0.01 wt% and drug: 0.2 mM

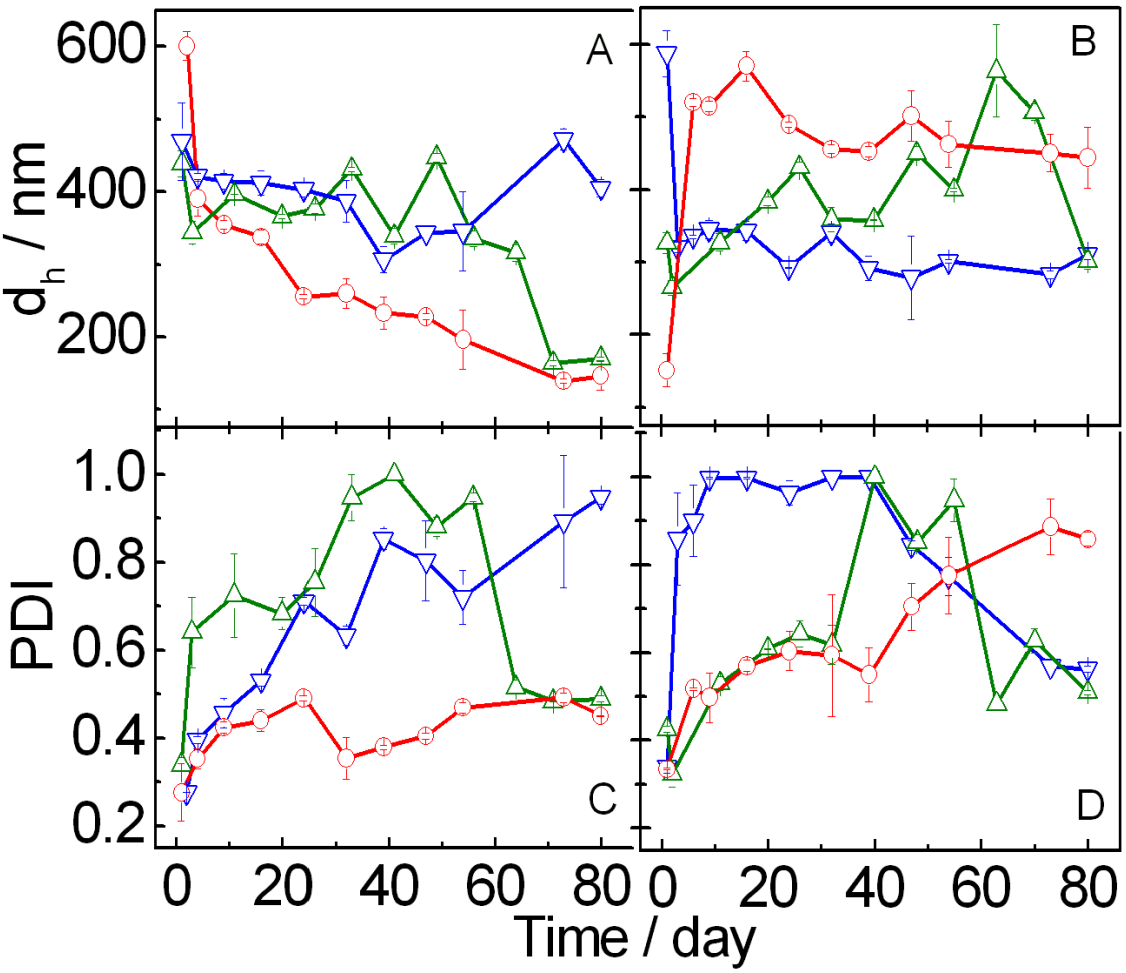

Figure S1. Variation insize (A, B) and polydispersity index (PDI), (C,D) of NLC (SLC+TS+PA, 2:2:1 M/M/M,1mM)with time at 25 °C. [Polymer] : A, C,0.001wt% and B, D, 0.1wt%.Polymers used: □, No polymer; ○, PEG; Δ, NaCMC and ▽, LM200. Temperature, 25°C.

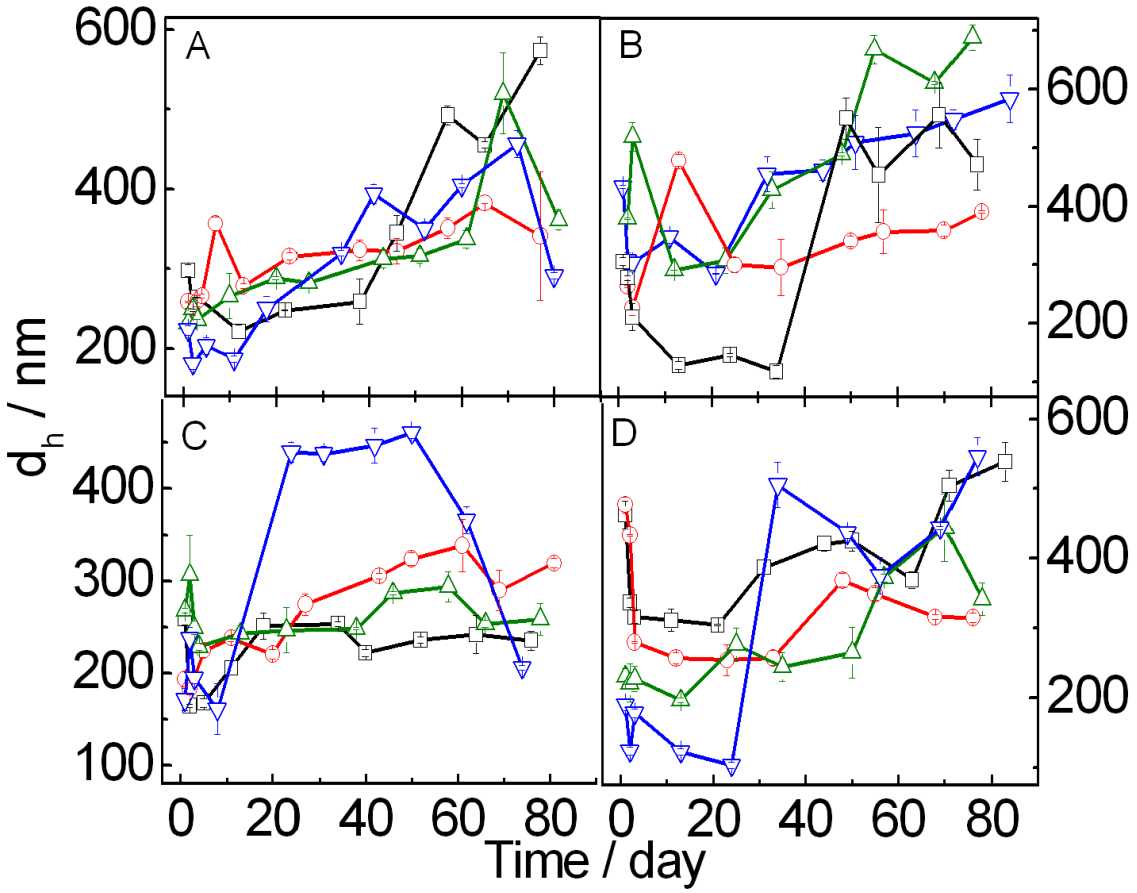

Figure S2. Hydrodynamic diameter (d_h) *vs* time profile forDNa (A,C) and IMC (B,D) loaded NLC (SLC+TS+PA, 2:2:1 M/M/M,1mM)stabilized by aqueous Tween 60 (10mM)+0.01 wt% polymer solution. [Drug]/mM :A, B,0.1; C, D, 0.3mM. Polymers used: □, No polymer; ○, PEG; Δ, NaCMC and ▽, LM200. Temperature, 25°C

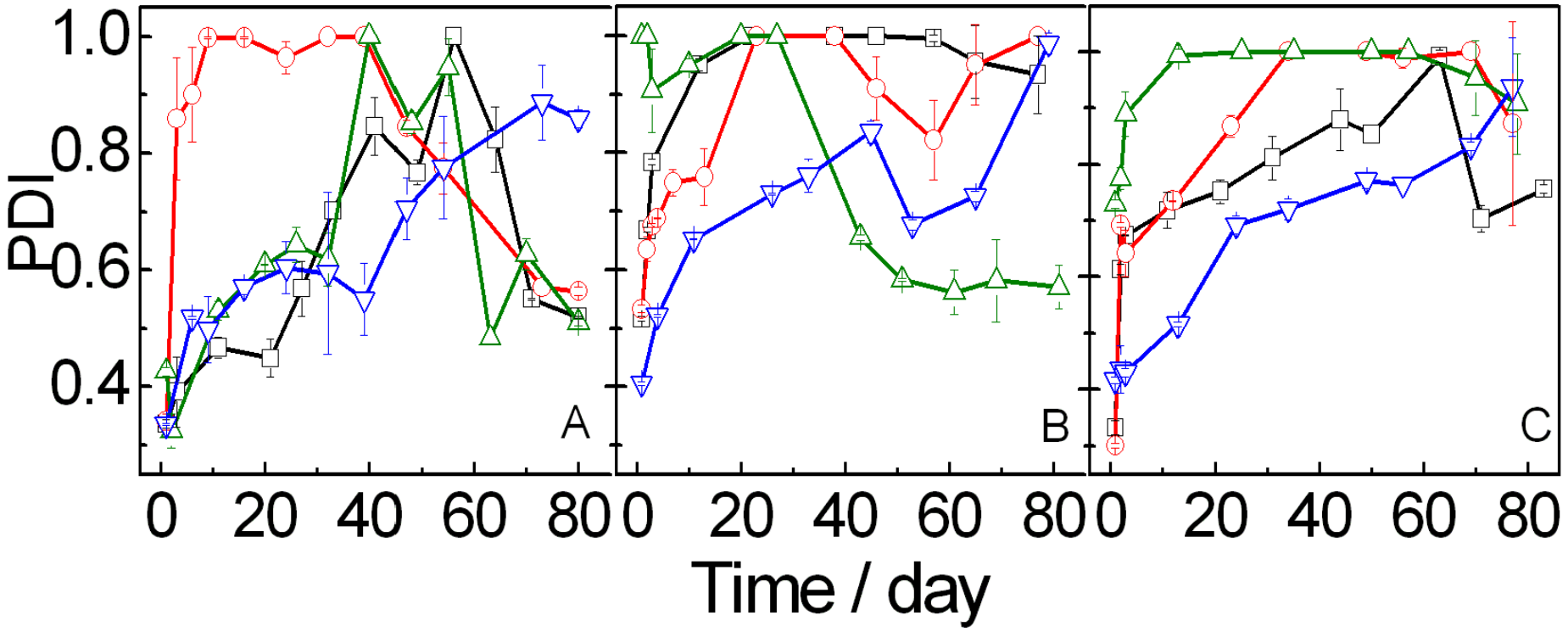

Figure S3. Variation in polydispersity index (PDI) of drug free and drug loaded NLC (SLC+TS+PA, 2:2:1 M/M/M, 1 mM) with time at 25 °C. Formulations were stabilized by aqueous Tween 60 (10mM)+0.01 wt% polymer solution. Panel A: drug free NLC; panel B: 0.2mM DNa loaded NLC; panel C: 0.2mM IMCloaded NLC.Polymers: □, no polymer;○, PEG;△, NaCMC and▽, LM200.

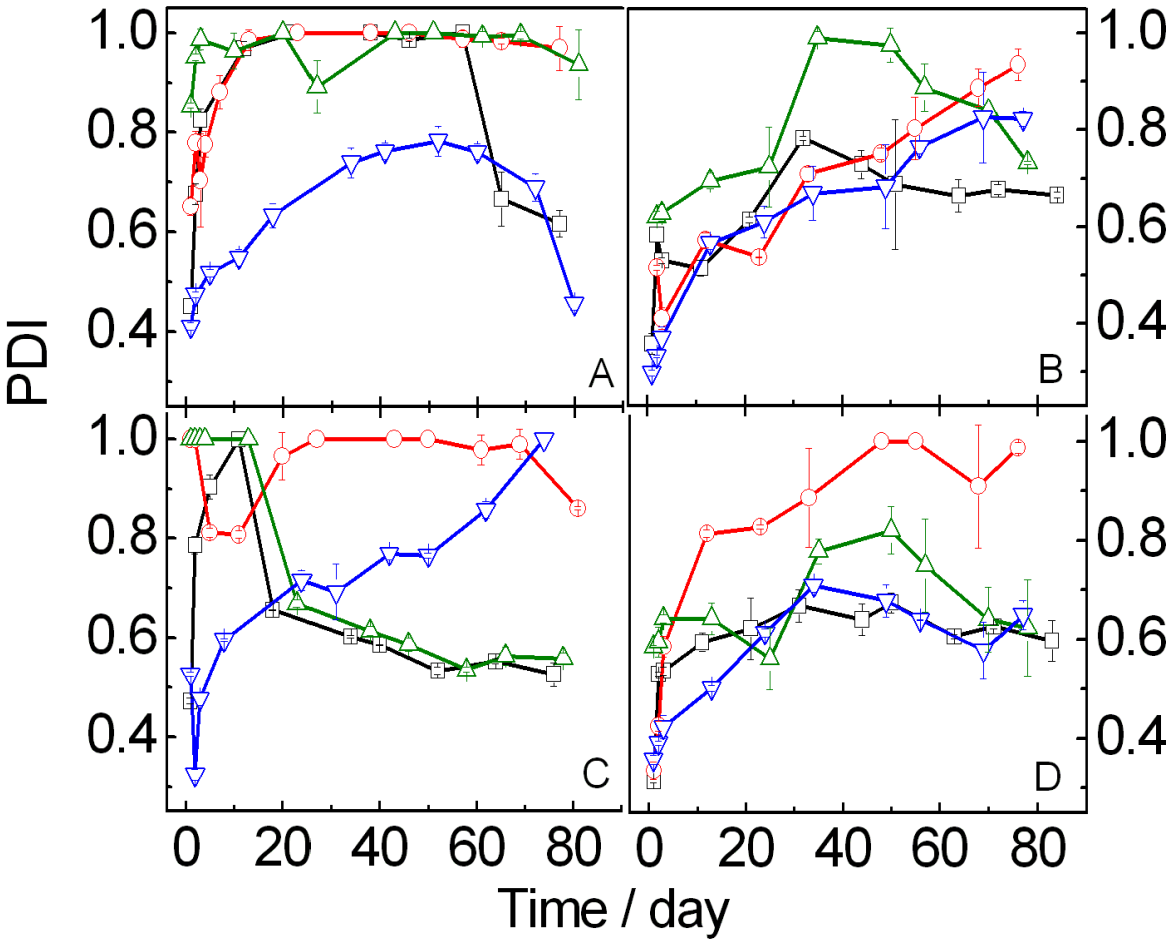

Figure S4. Variation in polydispersity index (PDI) of DNa (A,C) and IMC (B,D) loaded NLC (SLC+TS+PA, 2:2:1 M/M/M, 1 mM)stabilized by aqueous Tween 60 (10mM)+ 0.01 wt% polymer solution. [Drug]: A, B, 0.1 mM; C, D, 0.3 mM.Polymers used: □, No polymer; ○, PEG; Δ, NaCMC and ▽, LM200. Temperature, 25°C.

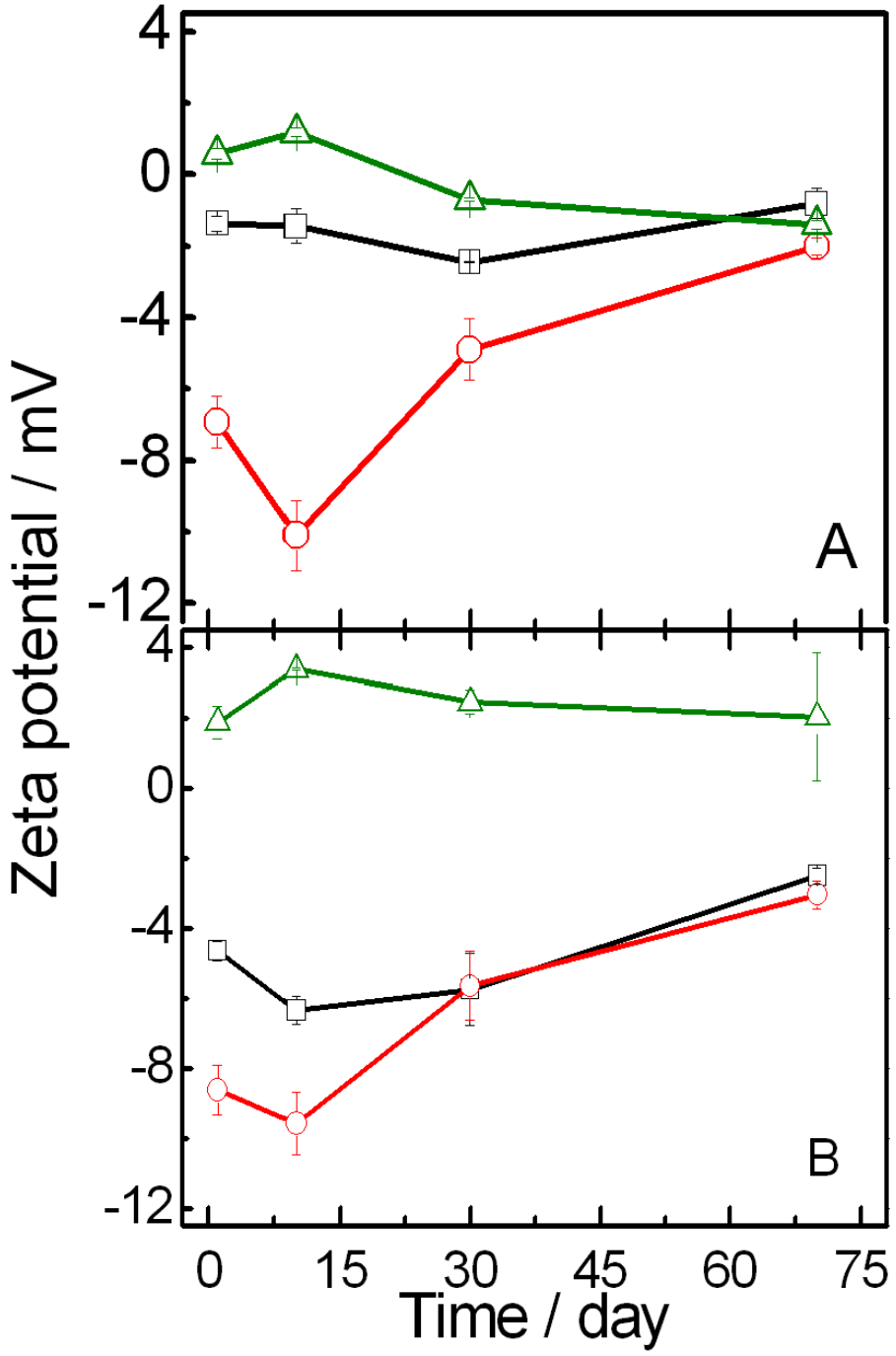

Figure S5. Variation in zeta potential of NLC (SLC+TS+PA, 2:2:1 M/M/M,1mM) with time,stabilized by aqueous Tween 60 (10mM)+ polymer solution. [Polymer]/wt%: 0.001(A) and 0.1(B).Systems: □, PEG; ○, NaCMC- and Δ, LM200. Temperature, 25 °C.

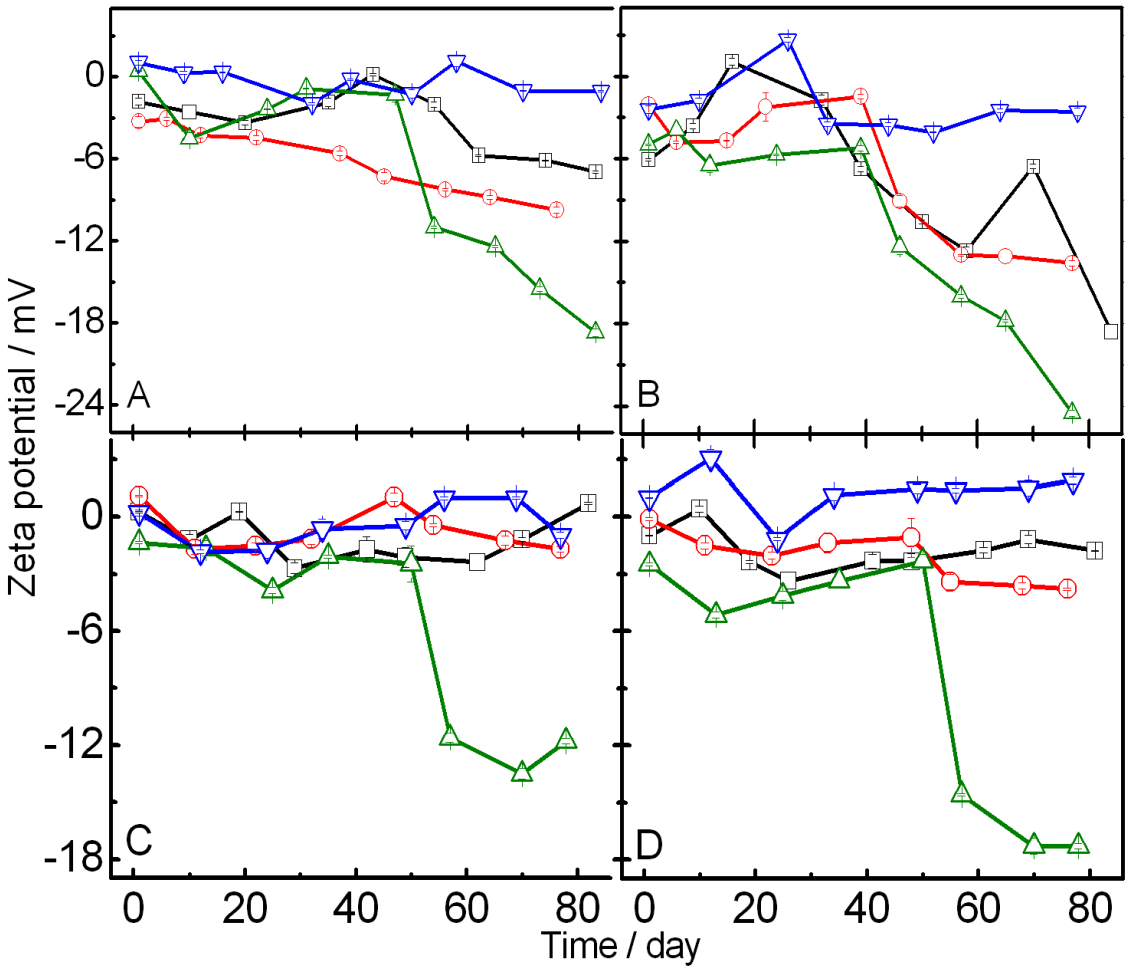

Figure S6. Zeta potential *vs* time profile for DNa (A,C) and IMC (B,D) loaded NLC (SLC+TS+PA, 2:2:1 M/M/M, 1 mM) stabilized by aqueous Tween 60 (10mM)+ 0.01 wt% polymer solution. [Drug]: A, B, 0.1 mM; C, D, 0.3 mM.Polymers used: □, No polymer; ○, PEG; Δ, NaCMC and ▽, LM200. Temperature, 25 °C.

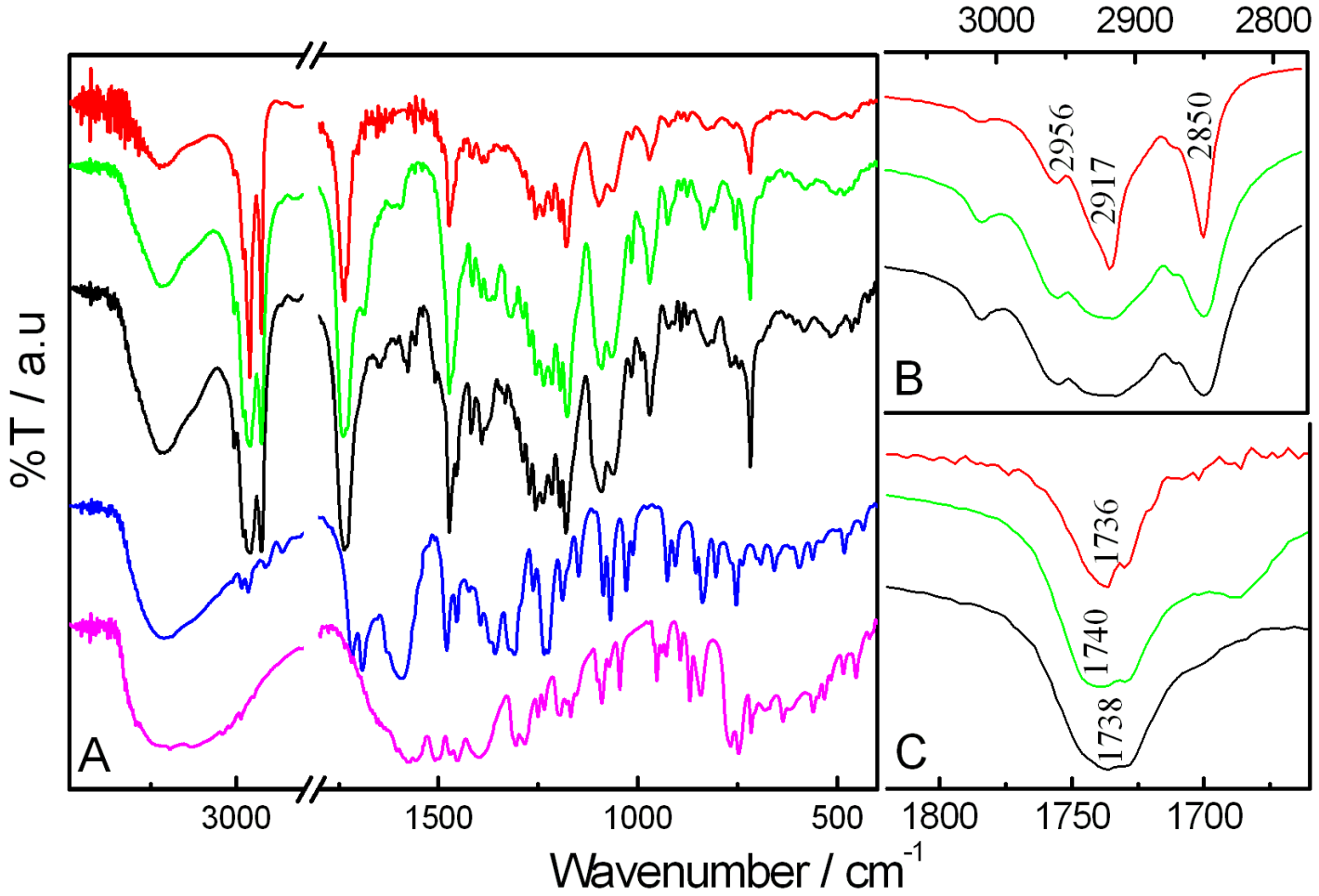

Figure S7. Effect of DNa and IMC on the FT-IR spectra of lipid mixture (SLC+TS+PA, 2:2:1 M/M/M). Systems:——, lipid mixture (LM);——, MC+LM;——, DNa+LM; ——, IMC and ——, DNa. Panel A describes the entire spectra; panel B shows the symmetric and antisymmetric stretching vibration of the CH_2 groups, panel C represents the vibration of the carbonyl (C=O) groups.

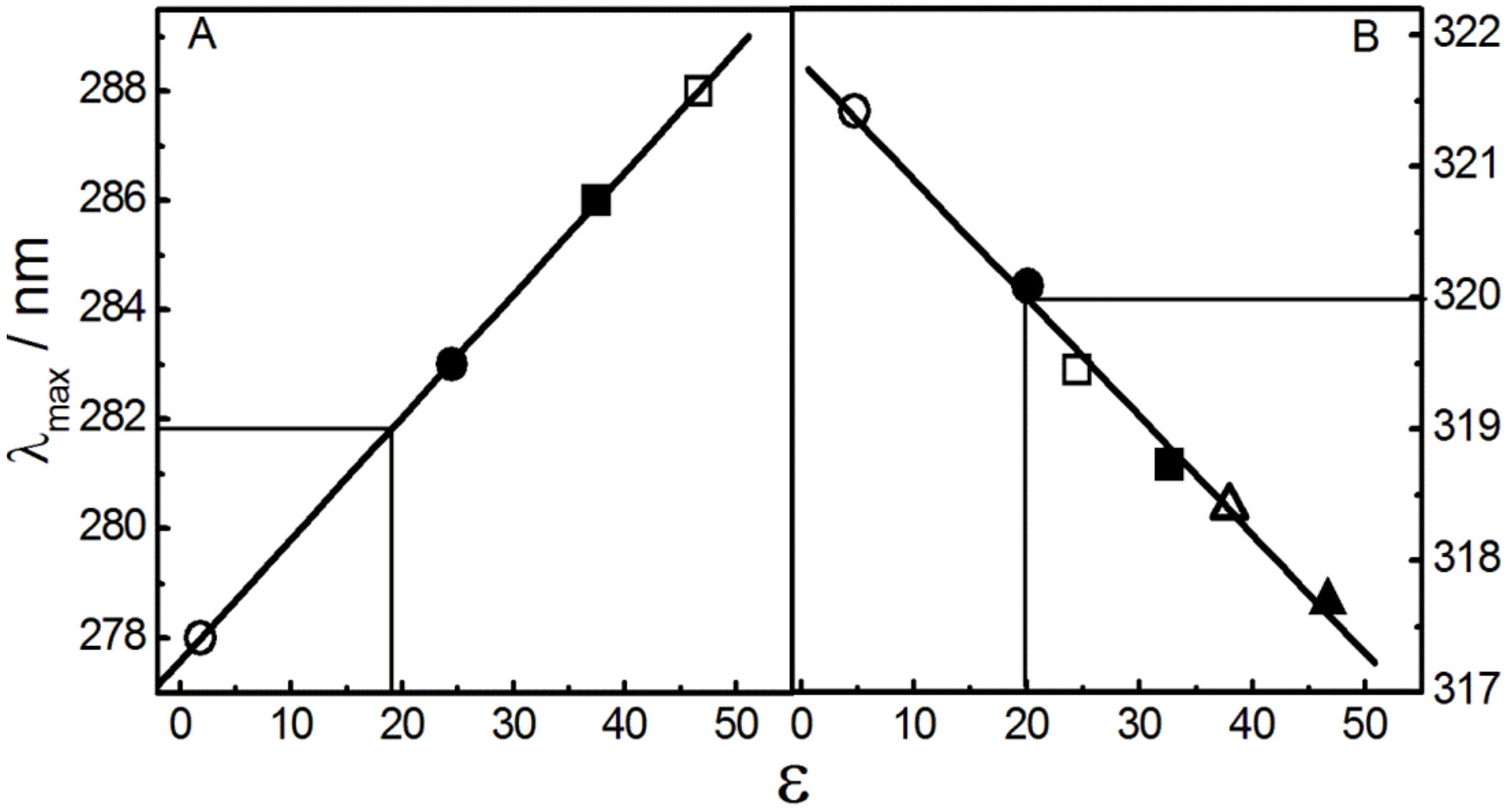

Figure S8. Dependence of absorption maxima (λ_{max}) of DNa (A) and IMC (B)on the dielectric constant (ε) of the medium at 25 °C.Solvents: panel A: □, DMSO;■, acetonitrile; ●,ethanol; O, hexane;panel B:□, methanol; ■, ethanol; ●,propanol; O, chloroform; Δ, DMF and ▲, DMSO.[Drug]: 0.2 mM.