Electronic Supplementary Material (ESI) for RSC Advances.

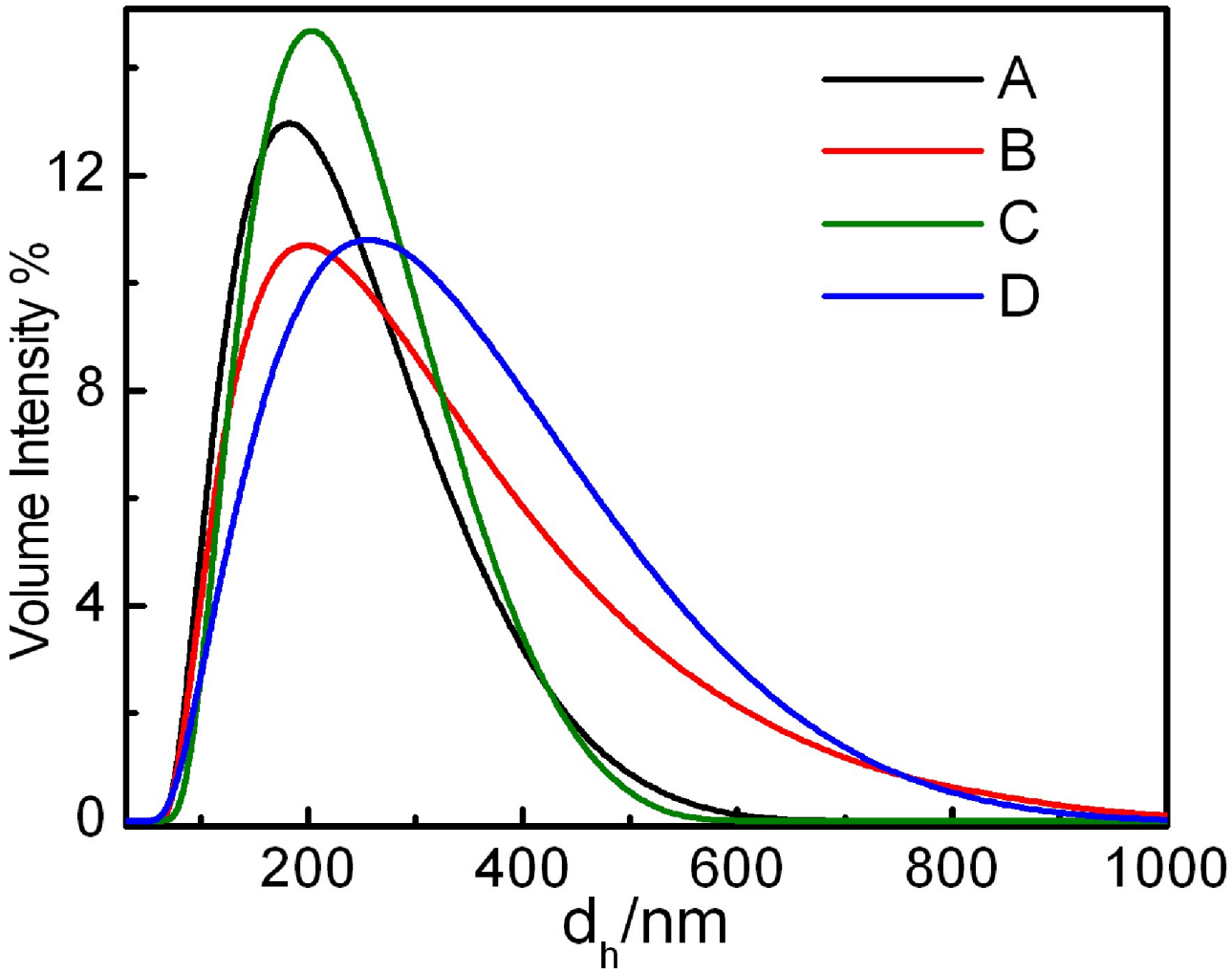

Fig. S1 Hydrodynamic size distribution curves of different vesicles at 25 °C. Systems: A, SPC; B, SPC+IPA (9:1); C, B+5 mole% DHDAB and D, C+IMC. 30 mole% cholesterol was used in each case.

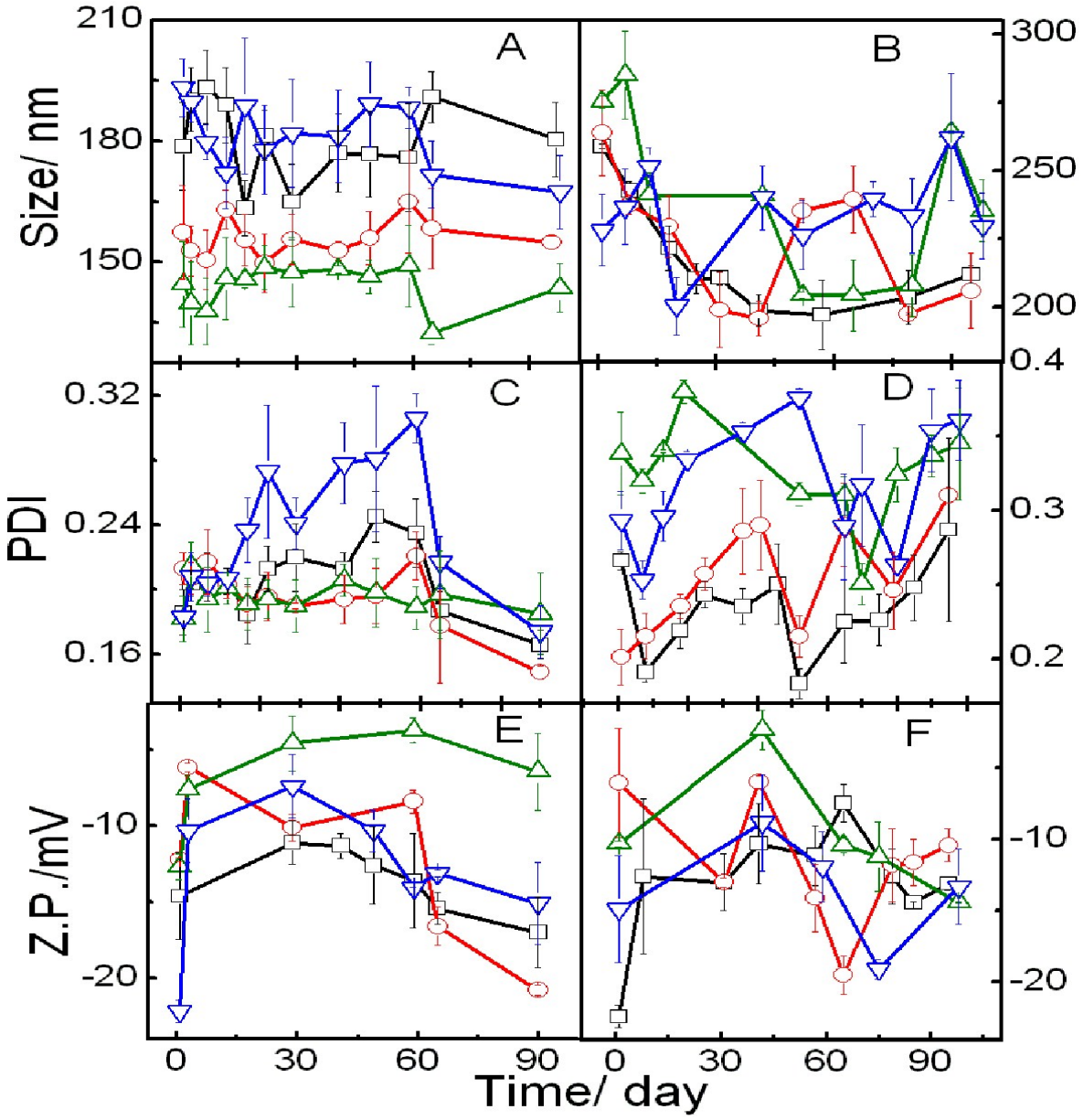

Fig. S2 Variation in the hydrodynamic diameter (d_h) (panel A, B), polydispersity index (PDI) (panel C, D) and zeta potential (Z.P.) (panel E, F) of indomethacin loaded vesicles with time of SPC+IPA (panel A, C and E) and SP+IPA + 5 mole% DHDAB (panel B, D and F) at different mole% of IPA at 25°C. Systems (mole% of IPA): ●, 0; ∞, 10; ❒, 20 and ♦30. Vesicles were prepared in 10 mM PBS buffer (pH 7

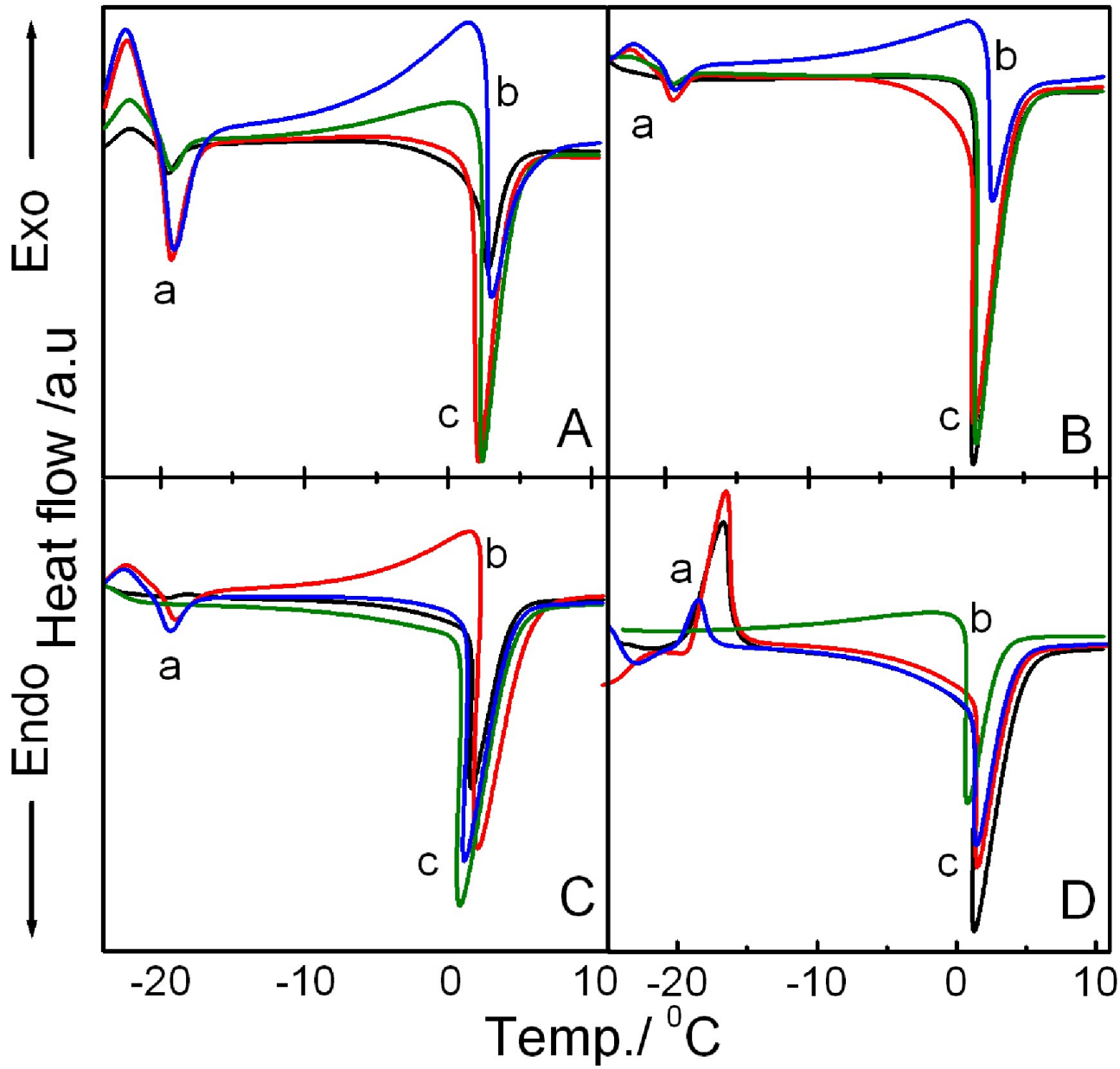

Fig. S3 DSC thermograms of SPC+IPA vesicles at different mole% of IPA without (A, C) and with 5 mole% DHDAB (B, D) in the absence (A and B) and presence (C and D) of indomethacin. Mole% of IPA: ——, 0;——, 10; ——, 20 and ——, 30. Scan rate: 2 °C.min

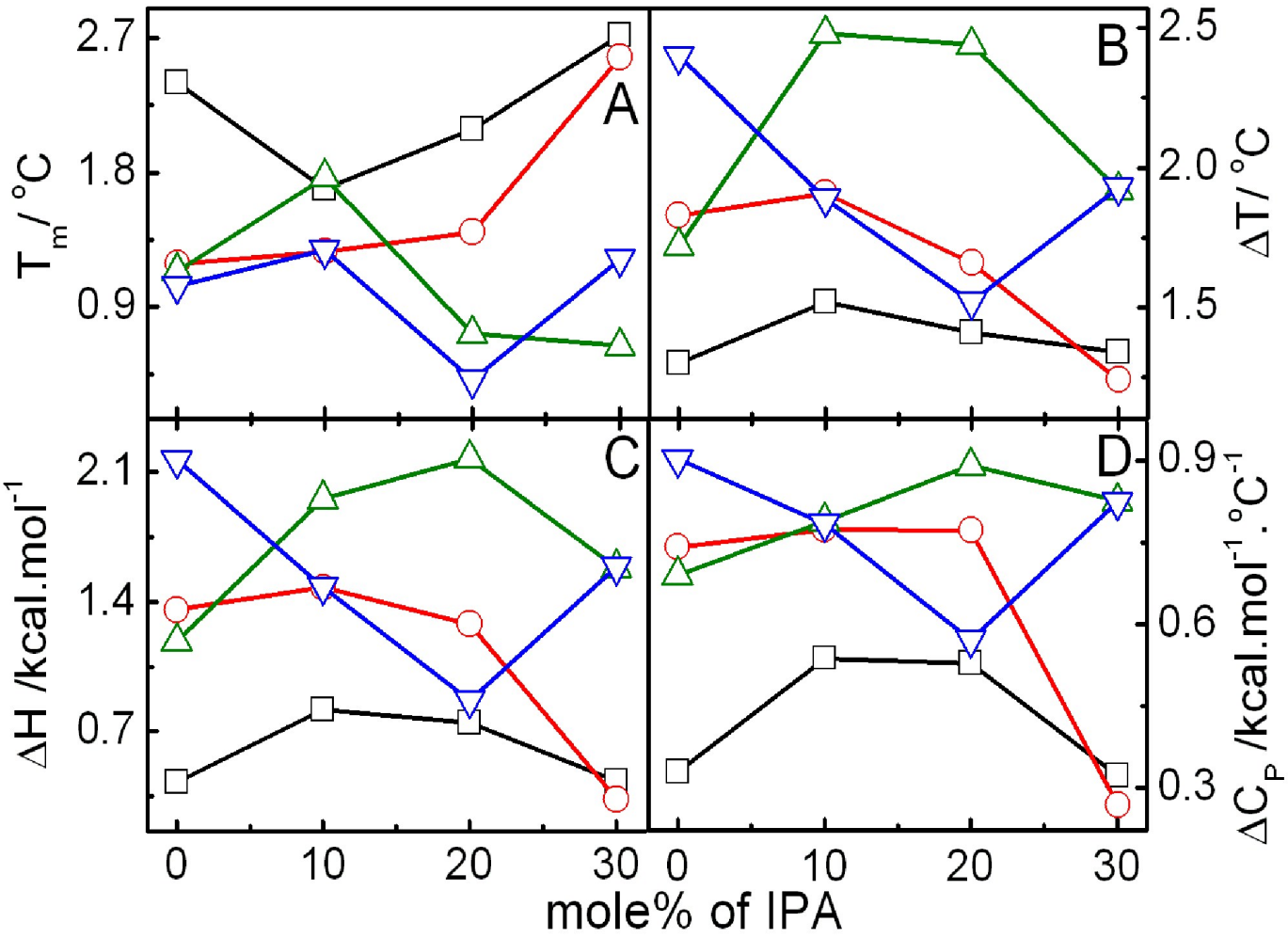

Fig. S4 Variation in the phase transition temperature (T_m), peak width (❒T), enthalpy change (❒H) and change in the heat capacity (❒C_p) for endothermic event 'c' with mole fraction of IPA for the vesicles of SPC+IPA in the absence and presence of indomethacin (IMC) and 5 mole% DHDAB. Systems: ——, without DHDAB; ——, with DHDAB; ——, IMC without DHDAB and ——, IMC with DHDAB.

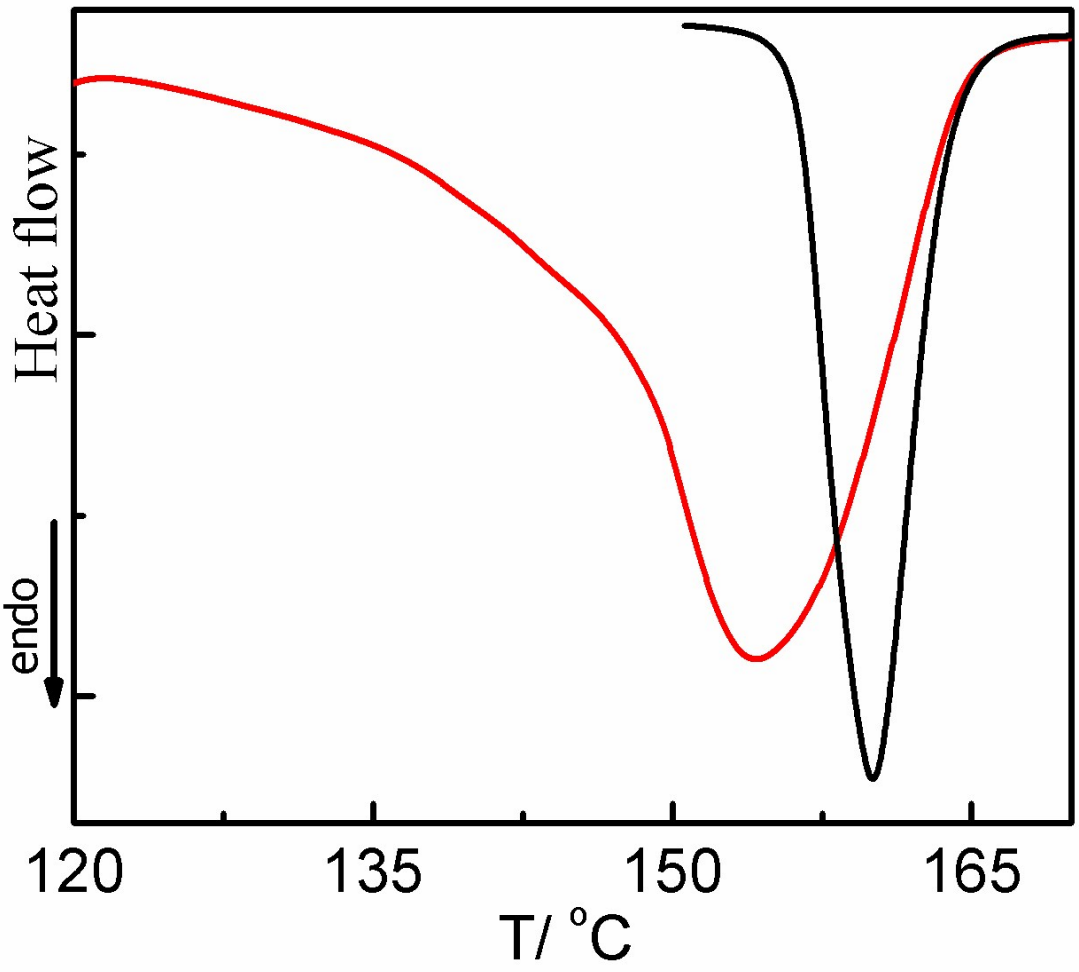

Fig. S5 DSC thermograms of pure indomethacin (——) and physical mixture of indomethacin and lipids (——). Scan rate: 10 °C.min^{-1}.

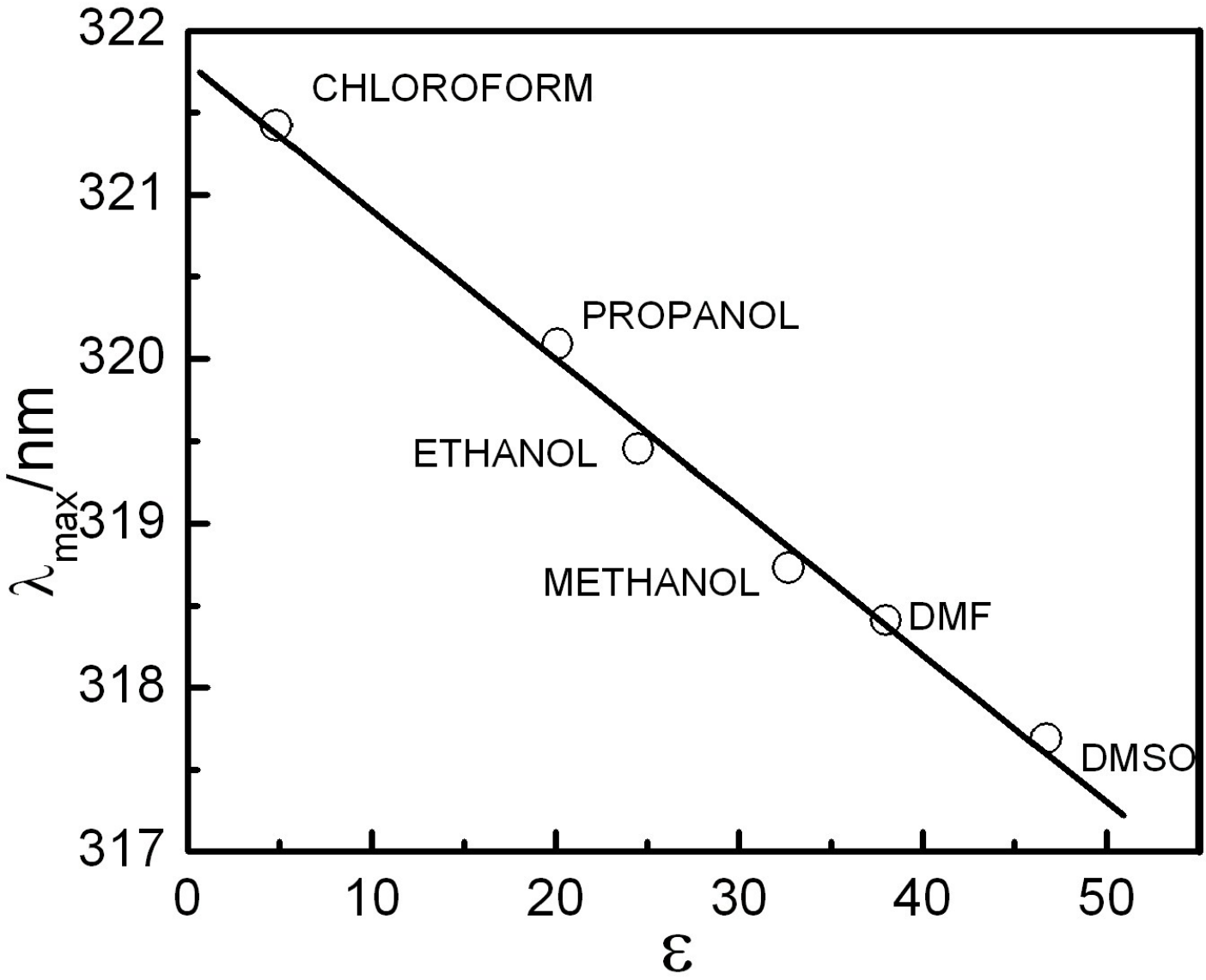

Fig. S6 Dependence of the absorption maximum (λ_{max}) of indomethacin on the dielectric constant (Ɛ) of solvents with different polarity at 25 °C. Drug concentration was fixed at 10 μM in each case.

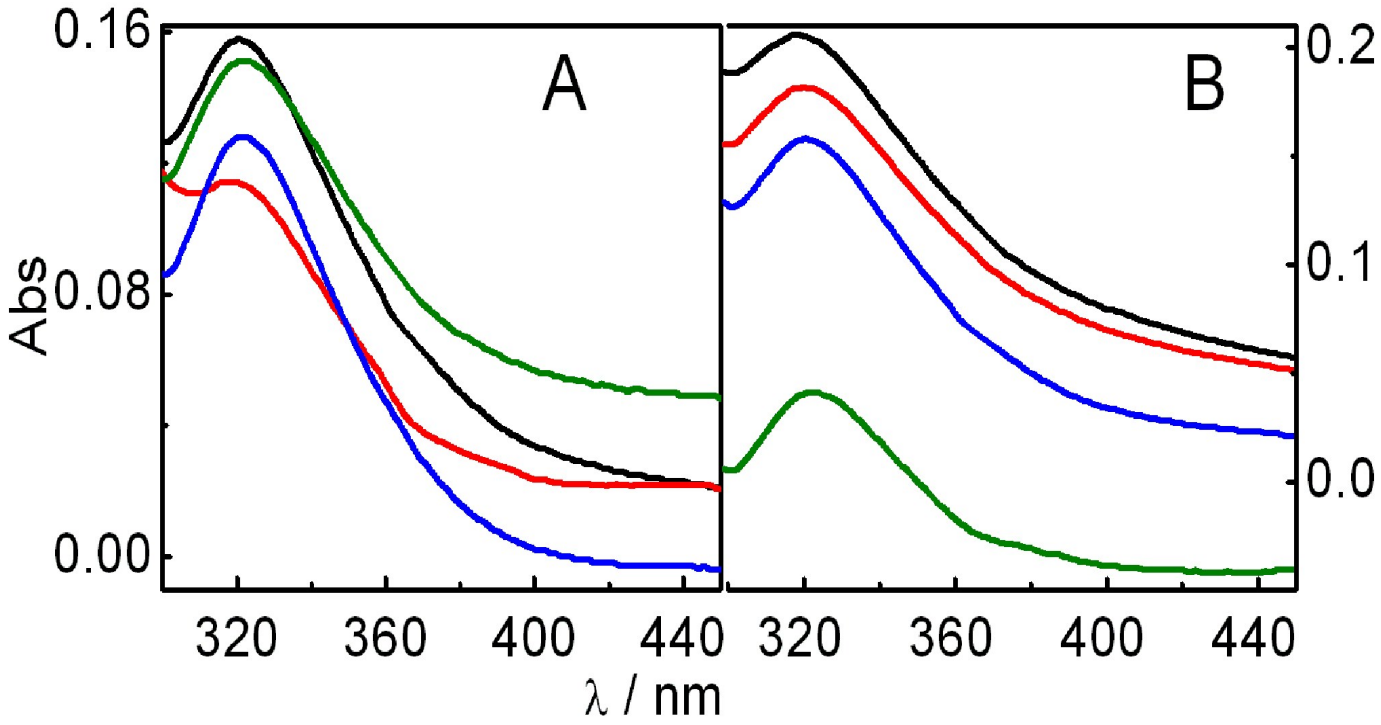

Fig. S7 UV-Visible absorption spectra of 0.01 mM IMC in the vesicles of SPC+IPA (panel A) and SPC+IPA +5 mole% DHDAB (panel B) at different ratios of SPC/IPA (in the presence of 30 mol% cholesterol) at 25 ºC. Systems (mole% of IPA): ——, 0; ——, 10; ——, 20 and ——, 30. Vesicles without IMC was used as reference.