Electronic Supplementary Material (ESI) for RSC Advances.

Supporting Information

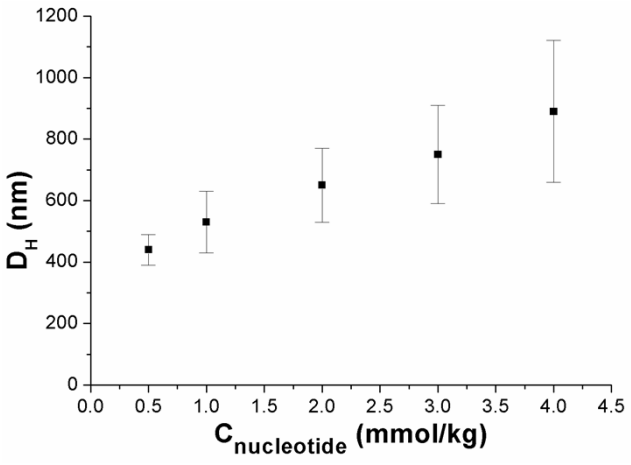

Figure S.1 Hydrodynamic diameter, D_H (nm) of DNA in aqueous solutions at different concentrations, $C_{nucleotide}$ (mmol/kg). Measurements refer to 25°C.

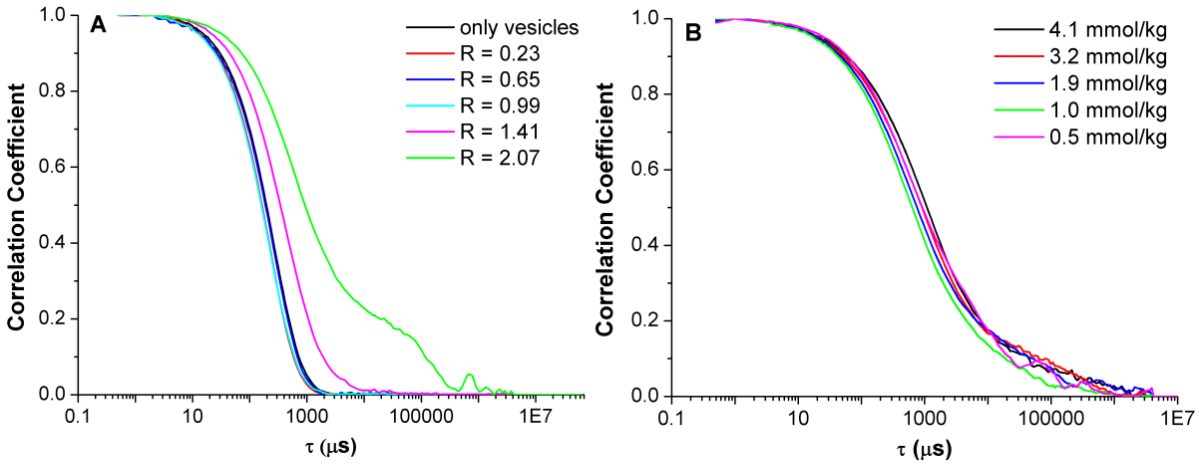

Figure S.2 (A) Correlation coefficient vs. delay time (τ, μs) for DiDAB/8-SHS vesicles and DNA at R ([PO_4^-/[$DiDA^+$]) = 0 (—), 0.23 (—), 0.65 (—), 0.99 (—), 1.41 (—), 2.07 (—) **(B)** Correlation coefficient vs. τ for DNA aqueous solutions at $C_{nucleotide}$= 4.1 (—), 3.2 (—), 1.9 (—), 1.0 (—), 0.5 (—) mmol/kg. Measurements refer to 25°C.

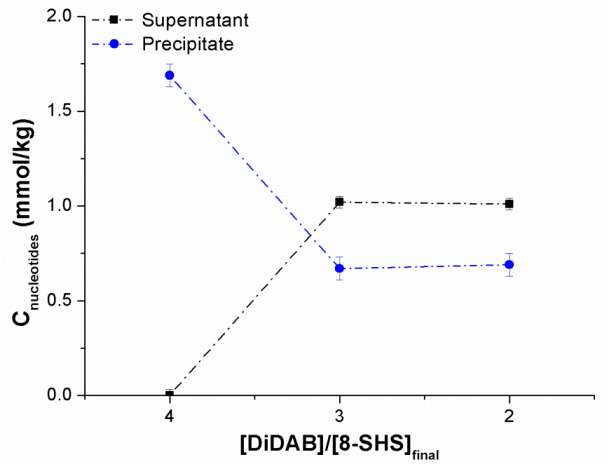

Figure S.3 Nucleotides concentration ($C_{nucleotide}$, mmol/kg) vs. the final [DiDAB]/[8-SHS] mole ratio in the supernatant (■) and in the precipitate (●). Data refer to 25.0 °C. Error bars represent standard deviations. Dashed lines are for visual purposes.

Procedure S.1: Determination of the proportion of the different species in the precipitates by elemental analysis

The composition of the precipitates is determined from elementary analysis as % of C, N, H, S. We use the C, H, N, S proportion of the anionic surfactant (that is the content of C, H and S), the proportion of DiDAB (that is C,H and N) and that of DNA (C, H and N) which summed in the adequate proportion produced that found in the precipitate. Because the system is overdetermined, 4 equations with 3 parameters (namely DiDAB per base, 8-SHS per base and amount of NaBr released) a minimum squared differences procedure has been used.