

## **Supporting information for:**

# Enhancement of DNA Compaction by Negatively Charged Nanoparticles. Application to Reversible Photocontrol of DNA Higher-Order Structure

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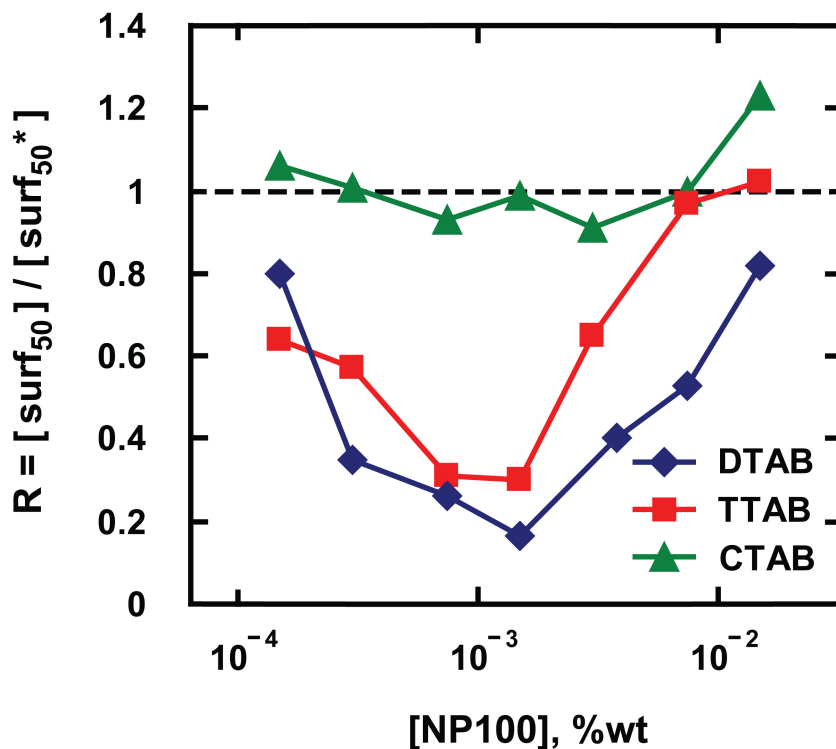
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**Figure S1. Effect of surfactant hydrophobic chain length on enhancement of DNA compaction.**

Ratio  $R$  of surfactant concentration corresponding to 50% of DNA compaction in the presence ( $[\text{Surf}_{50}]$ ) and in the absence ( $[\text{Surf}_{50}^*]$ ) of NPs as a function of NPs concentration for dodecyltrimethylammonium bromide (DTAB, blue diamonds), tetradecyltrimethylammonium bromide (TTAB, red squares), and cetyltrimethylammonium bromide (CTAB, green triangles). Symbols are data points. Lines connecting symbols are guides for the eyes.  $[\text{DNA}] = 0.1 \mu\text{M}$ ;  $[\text{YOYO}] = 0.01 \mu\text{M}$ ;  $[\text{Tris}/\text{HCl}] = 10 \text{ mM}$  (pH = 7.4).