

## Electronic Supplementary Information

### Oligonucleotide solid-phase synthesis on fluorescent nanoparticles grafted on controlled pore glass†

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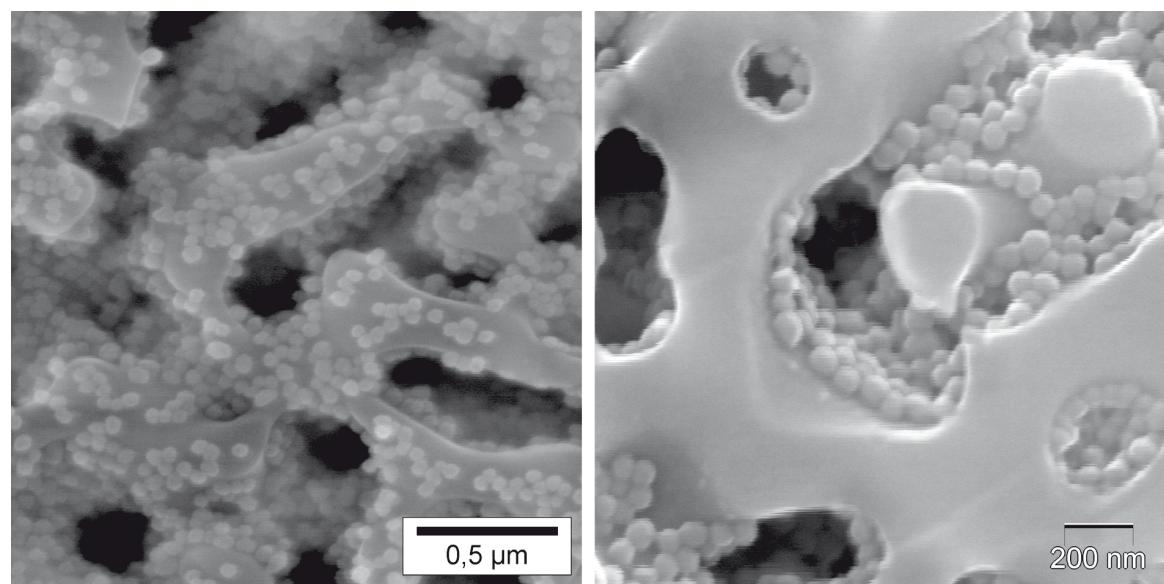
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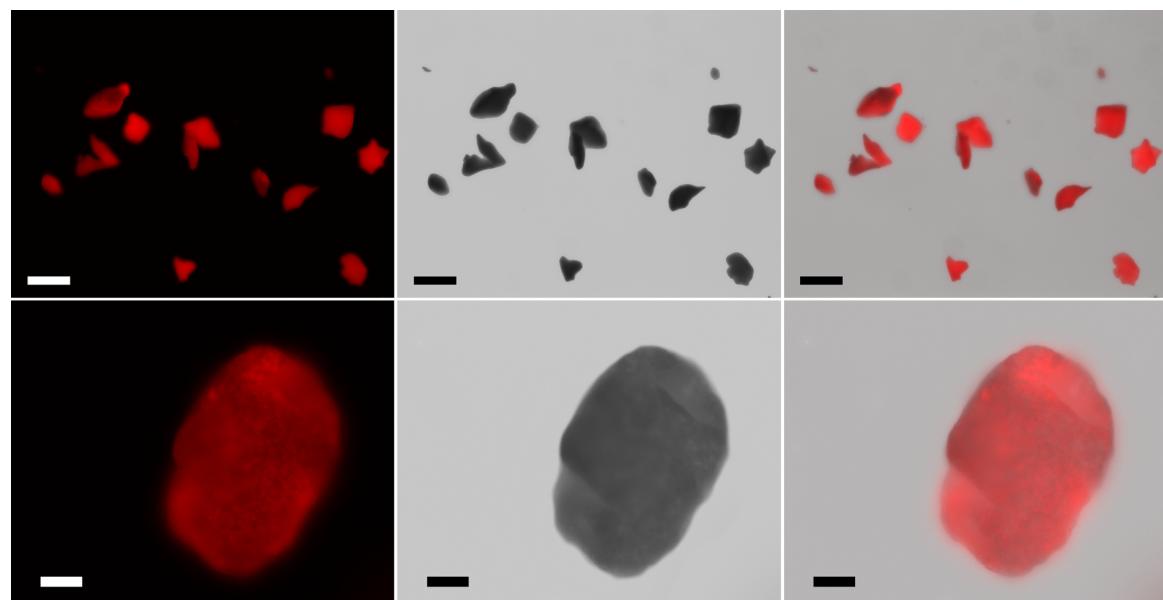
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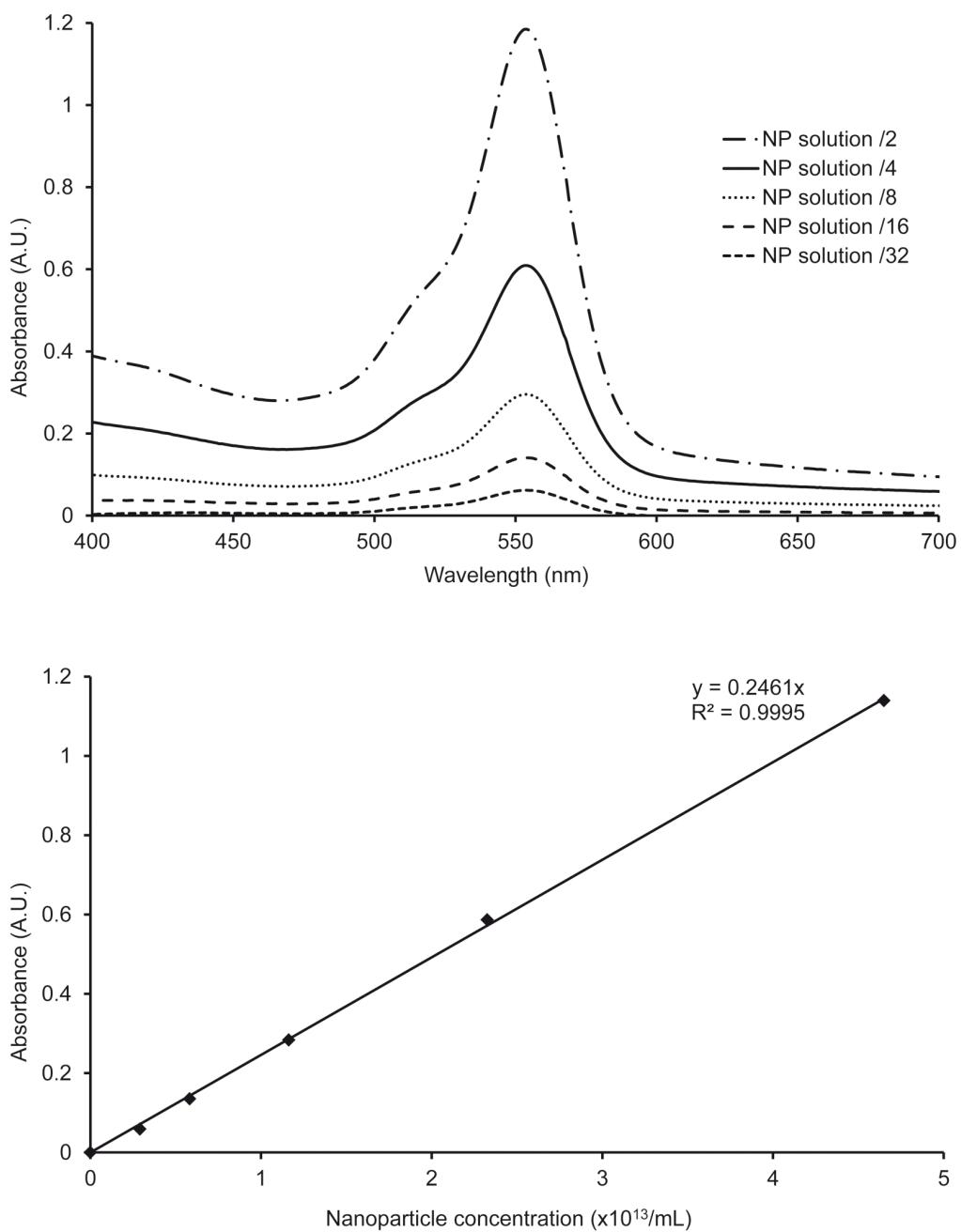
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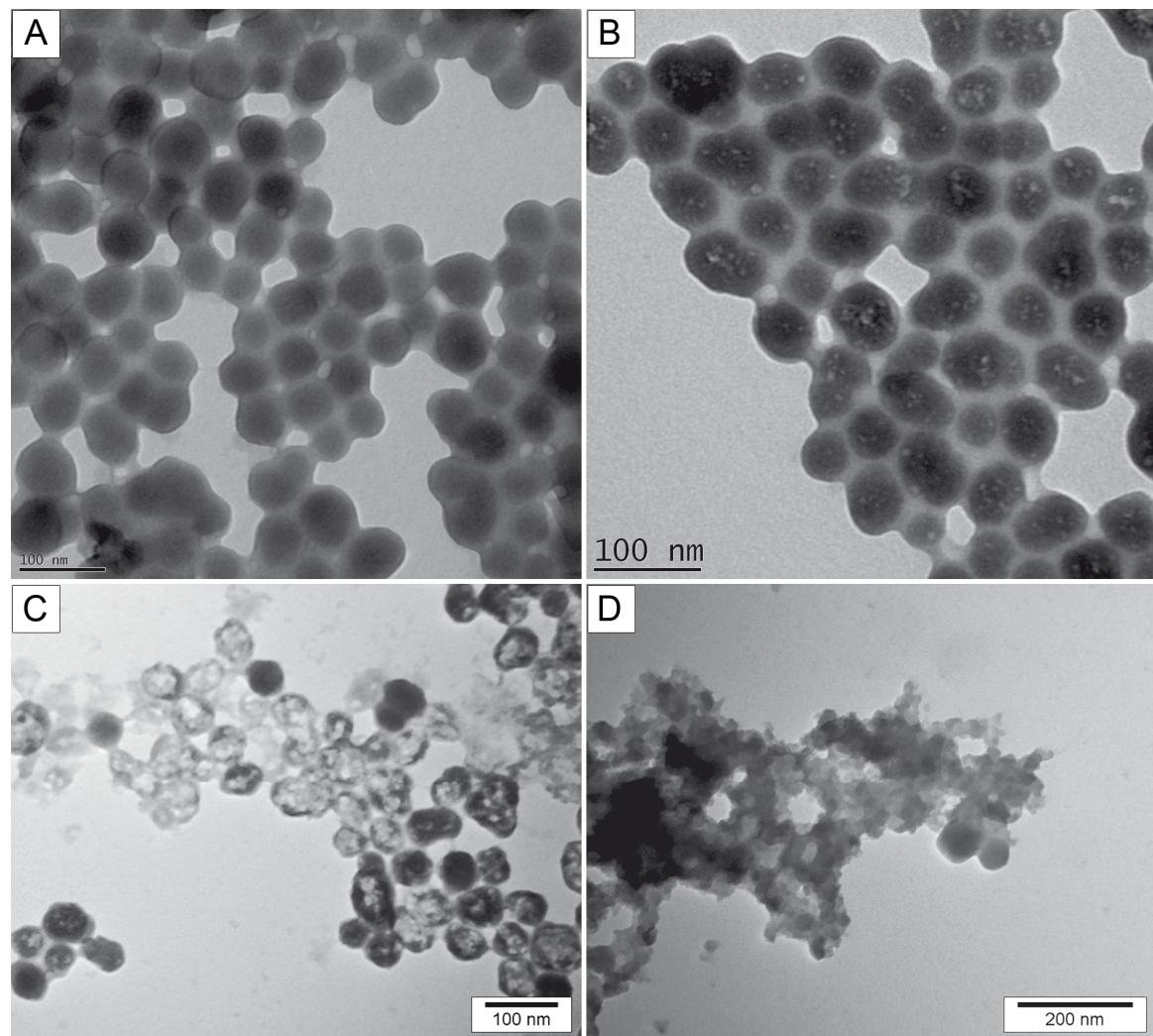
**Fig. S1** Scanning Electron Microscopy of NP-CPG assemblies before and after the capping step.



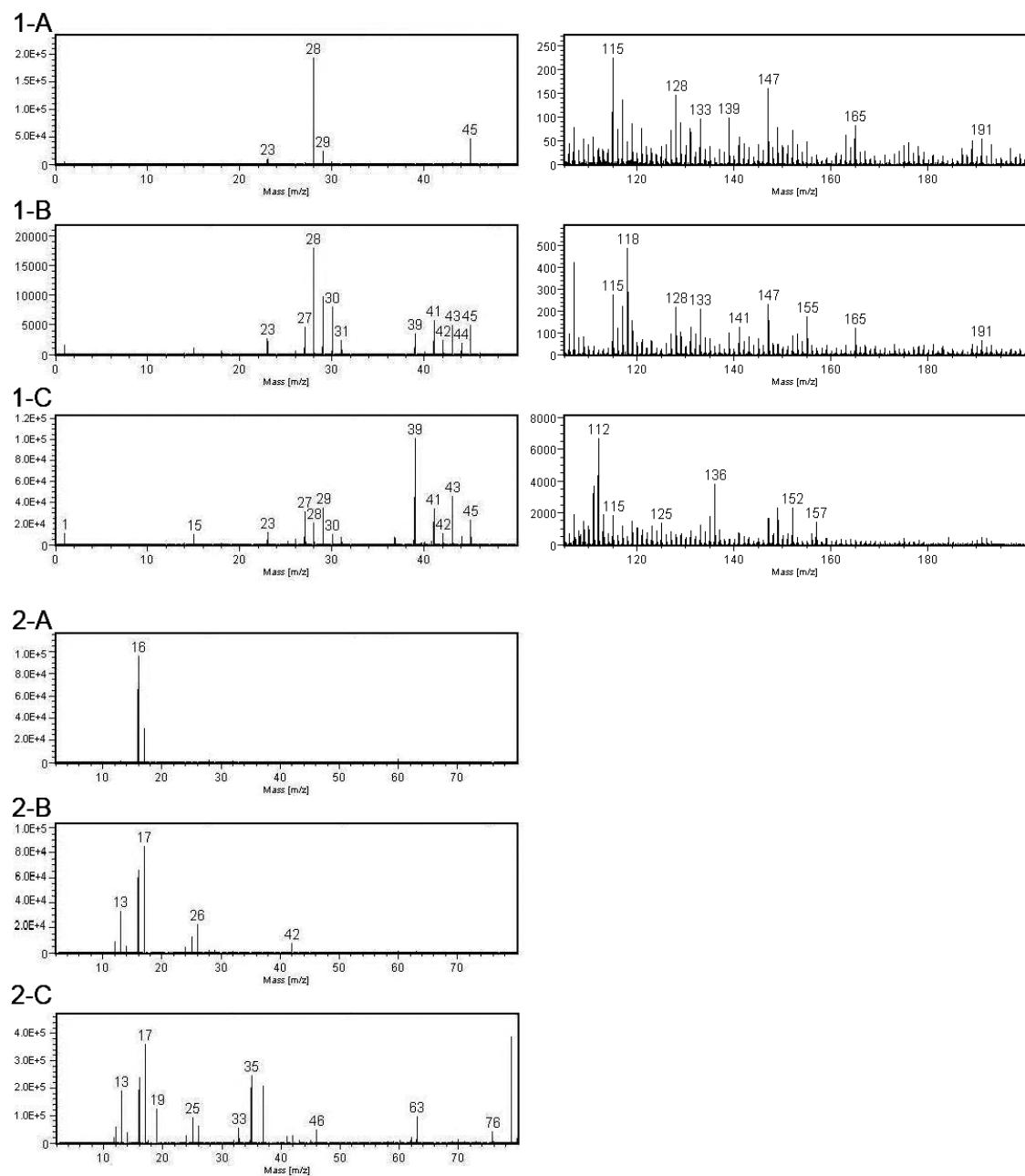
**Fig. S2** Optical microscopy of NP-CPG assemblies at two different magnifications (from left to right: fluorescence, transmission and superimposed images). Scale bars are 100  $\mu\text{m}$  (top) and 20  $\mu\text{m}$  (bottom).



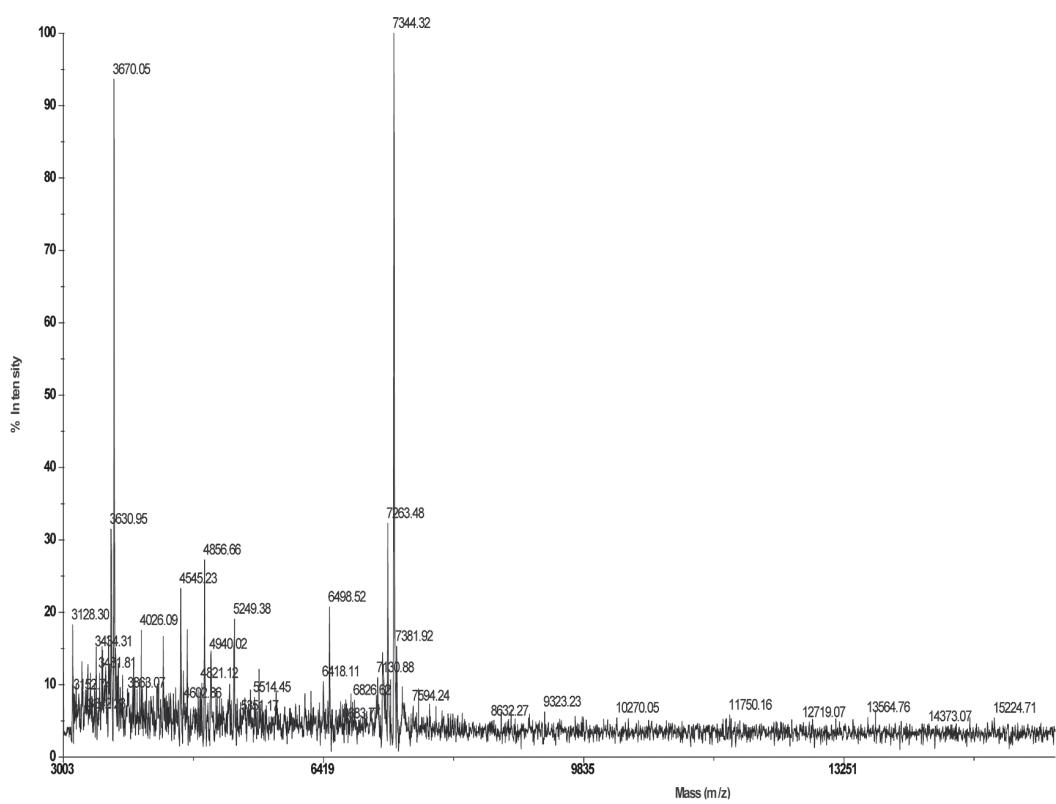
**Fig. S3** Absorbance spectra (top) and the calibration curve of the NPs from different dilutions of the reference nanoparticle solution at 554 nm (bottom).



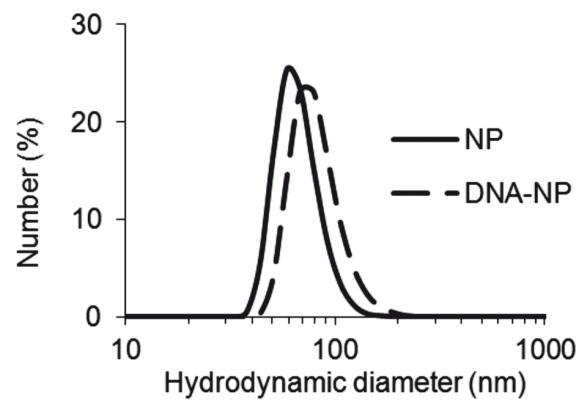
**Fig. S4** Degradation study of DNA-NPs observed by Transmission Electron Microscopy; treatment during 90 min (A), 120 min (B), 150 min (C) and 180 min (D) in 1% (v/v) ammonia at 60°C.



**Fig. S5** ToF-SIMS spectra of silica NP (A), TESPHU-NP (B) and DNA-NP (C) in positive (1) and negative mode (2).



**Fig. S6** MALDI-ToF mass spectrometry of the synthetic HBV DNA 3'-phosphate.



**Fig. S7** Dynamic Light Scattering of silica NP and DNA-NP.