

## **Supporting Information for**

### **An Ultra-Compact Nano-Theranostic PEG Platform for Cancer Applications**

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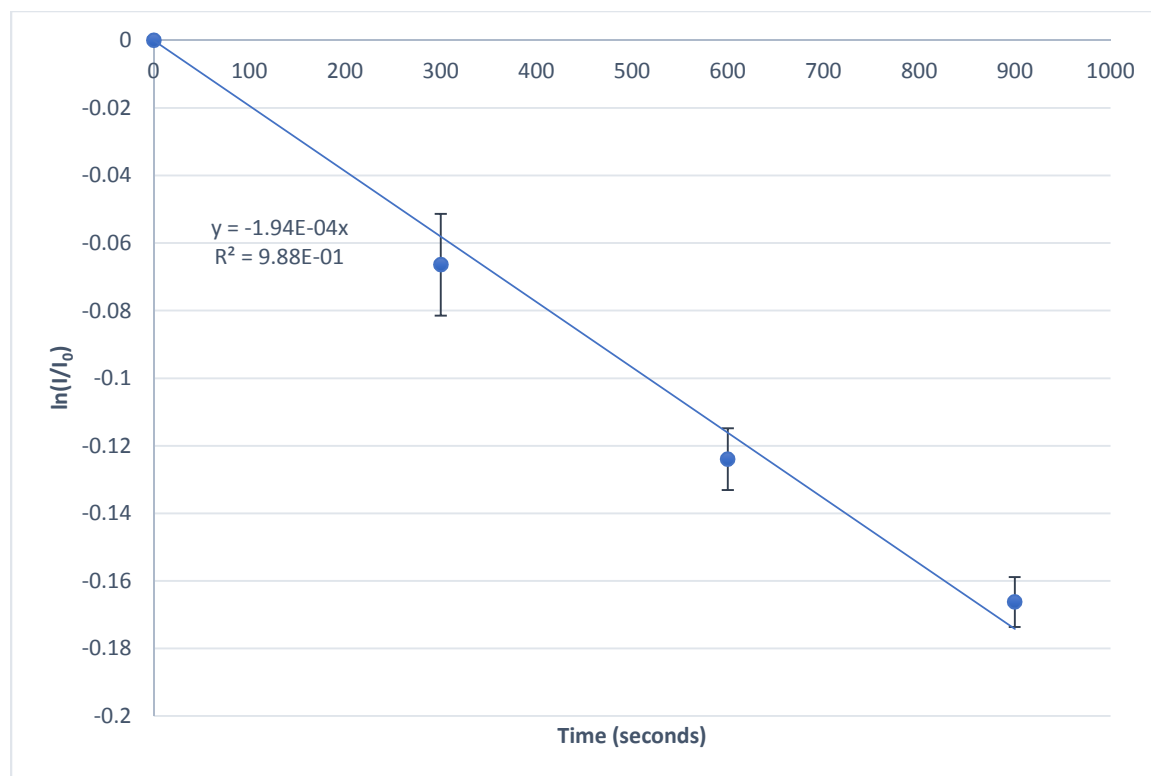


Figure S1: *k-value* plot of Ce6 encapsulated in PAAm NP as tracked by ADPA fluorescence quenching over time. The 660 nm OD = 0.12 in PBS; the slope of the plot is the *k-value*.

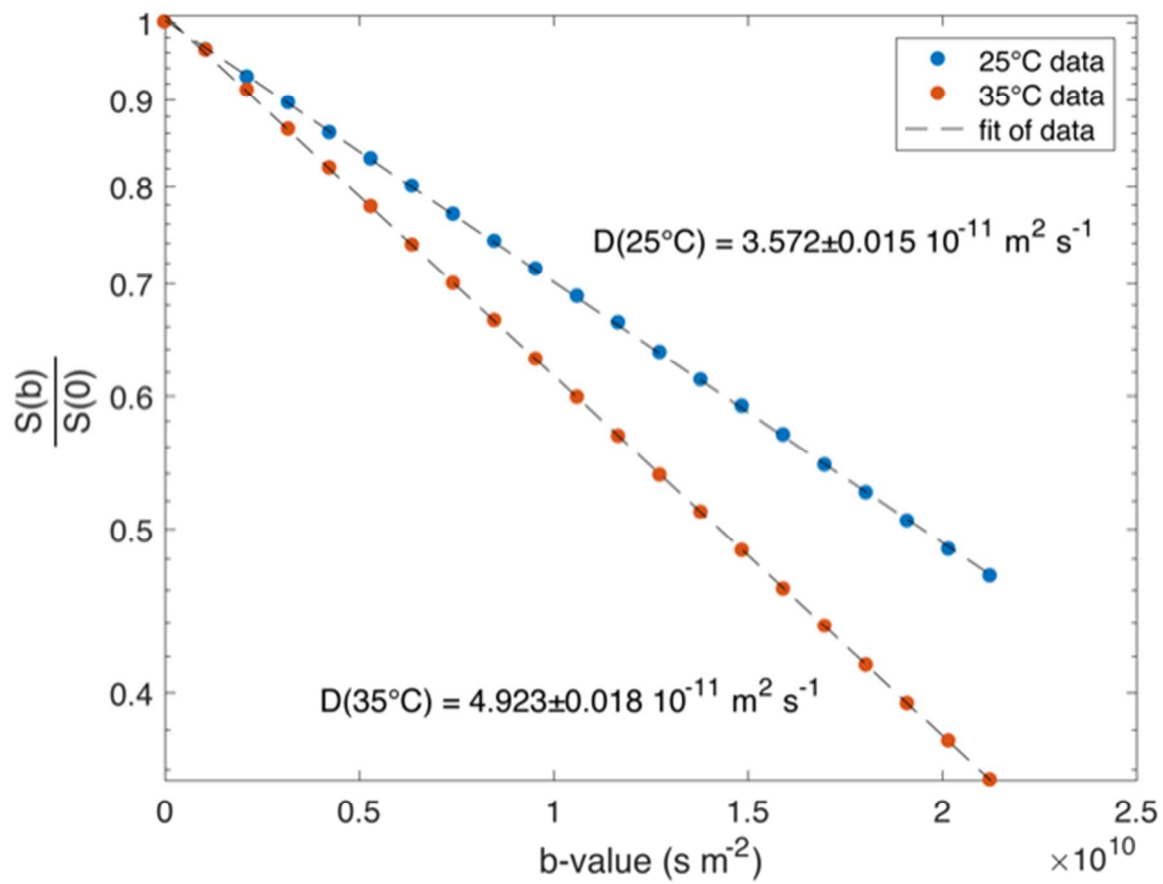
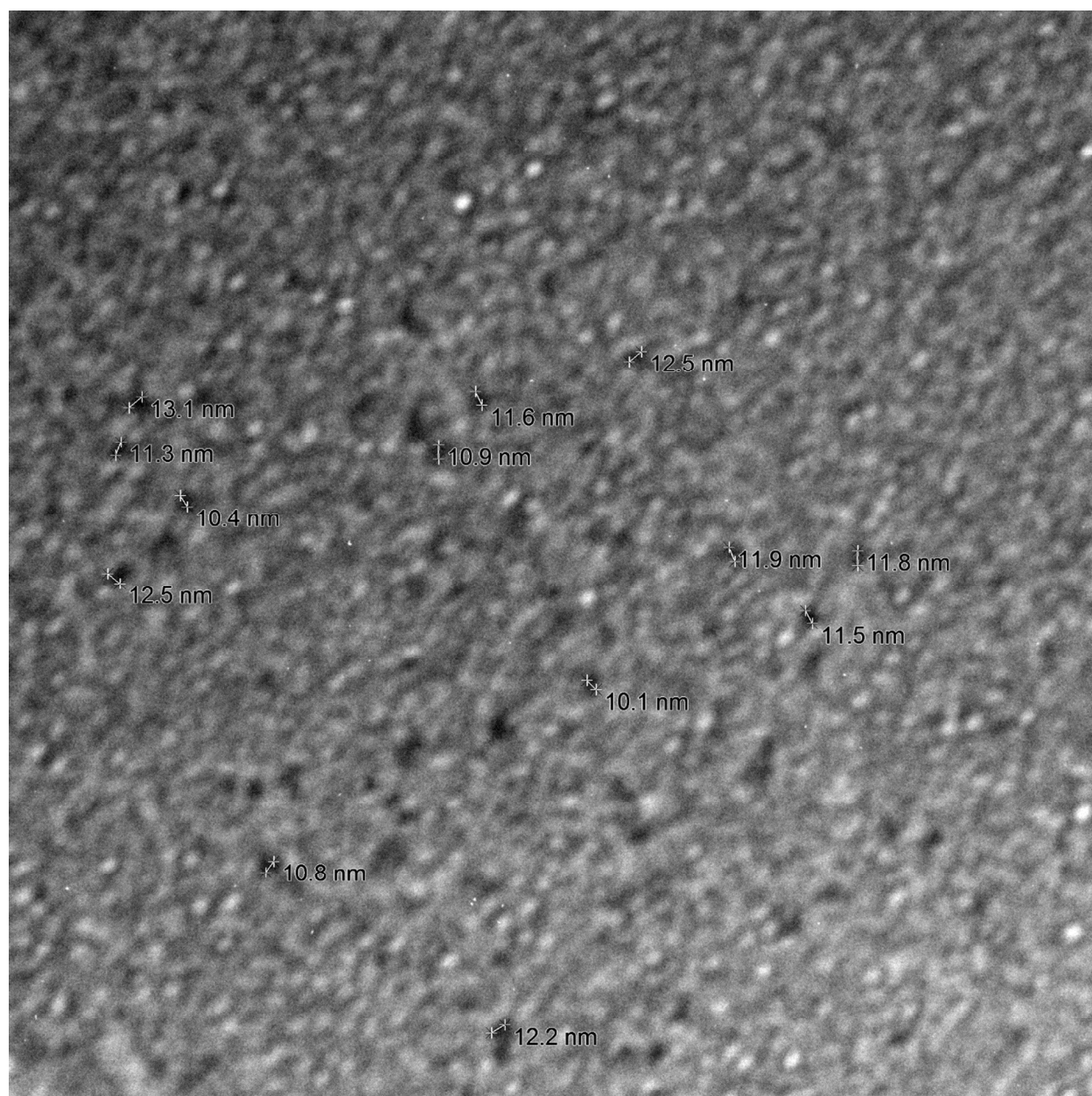


Figure S2: Plot of 8PEGA MR signal decay vs applied magnetic gradient ( $b$  value). The slope of the best fits corresponds with the transitional diffusion coefficient,  $D$ , in the Stokes-Einstein equation.



8pega stained.tif  
 Print Mag: 207000x @ 7.0 in  
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100 nm  
 HV=90.0kV  
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 Bottom Camera-MIL

Figure S3: TEM of 8PEGA stained with uranyl acetate. TEMs are taken by placing copper grids into the microscope while wet to utilize surface tension as a way of maintaining the hydrated 8PEGA conformation when exposed to the high vacuum environment. The low electronically dense material can be reasonably visualized.