

Electronic Supplementary Information

**Effect of Adsorption Kinetics on Dissociation of DNA-Nucleobases on Gold
Nanoparticles under Pulsed Laser Illumination**

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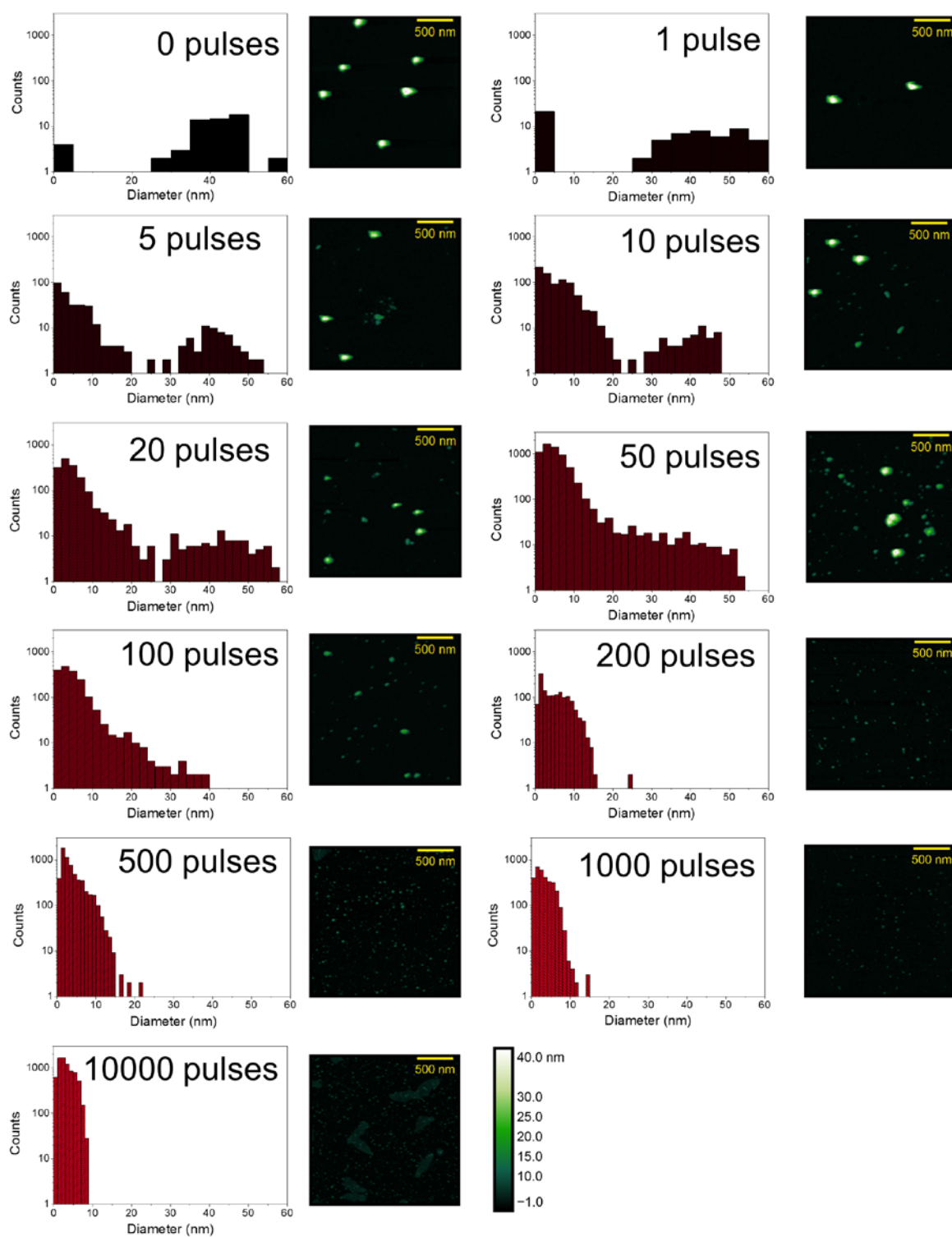


Figure S1: AFM images and size distribution of GNP with a nominal size of 40 nm dried on a Si-substrate after irradiation with a certain number of laser pulses.

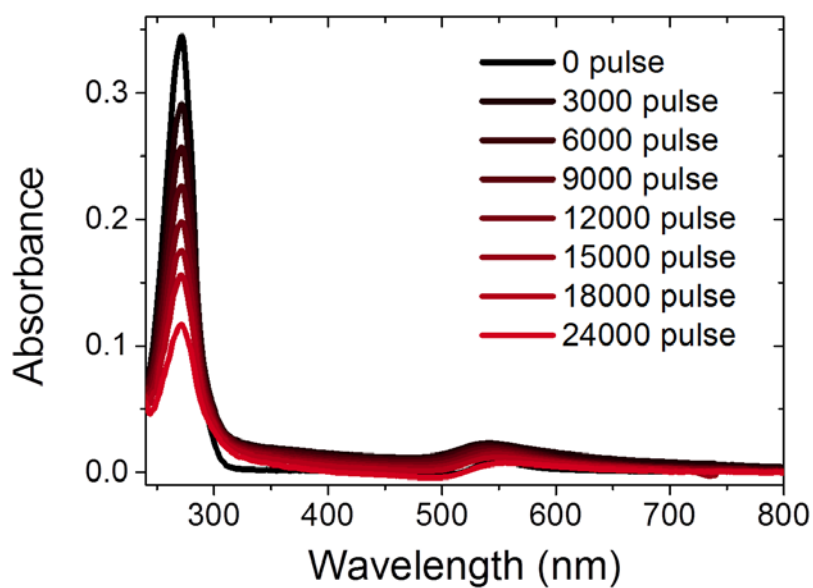


Figure S2: Absorbance spectra of irradiated ^{88}BrA and GNP corrected by subtracting a spectrum of the pure GNPs irradiated under the same experimental conditions. The features for wavelengths above 300 nm are caused by the aggregation of the nanoparticles.

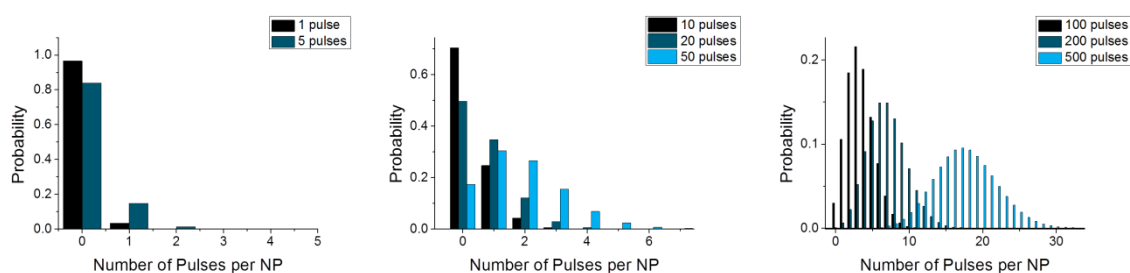


Figure S3: Poisson probability distribution of laser pulses that hit a GNP in the illuminated area.

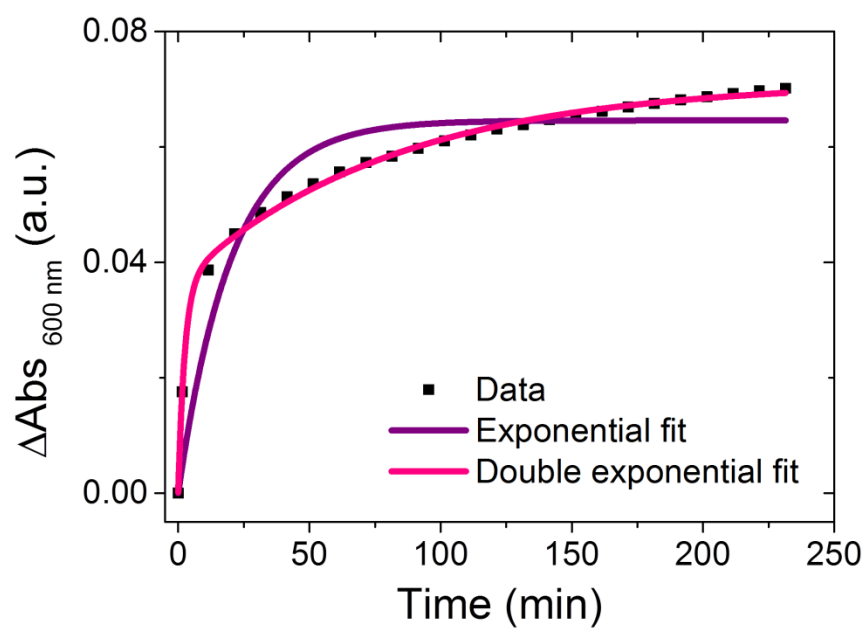


Figure S4: Increase of the Absorbance at 600 nm of irradiated GNP after the addition of 20 μM Cytosine.