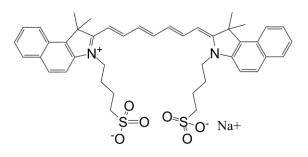
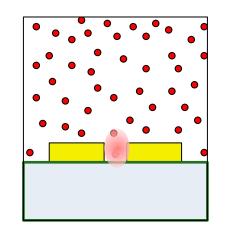


Fluorescence Correlation Spectroscopy at High Concentrations with Bowtie Nanoantennas

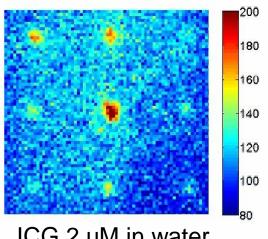




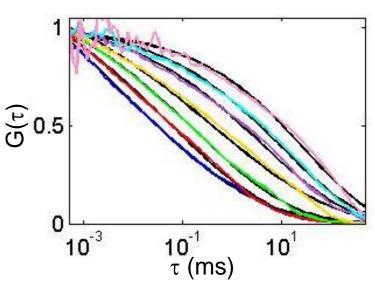
Indocyanine green (ICG)
QE = 2% in water



- Use fluorescence enhancement in ~(20 nm)³ volume to make dim emitters visible
- Detected single molecule bursts from high concentration samples.
- Correlated FCS curves to photobleaching behavior using stretched exponentials.
- New method for studying single molecules at µM concentrations



ICG 2 uM in water
Bowtie spacing 4 um



Anika A. Kinkhabwala, Zongfu Yu, Shanhui Fan, and W.E. Moerner, *Chem. Phys.* **406**, 3-8 (2012) published online 21 April 2012.