SUPPORTING ONLINE MATERIAL

Dye Diffusion at Surfaces: Charge Matters

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I. AUTOCORRELATION CURVES:

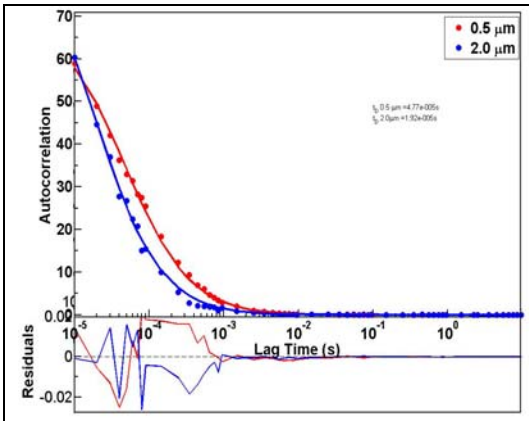

Figure S1: Representative autocorrelation curves for R6G. Both 0.5 and 2.0 µm data sets are pictured, as well as the residuals below the curves.

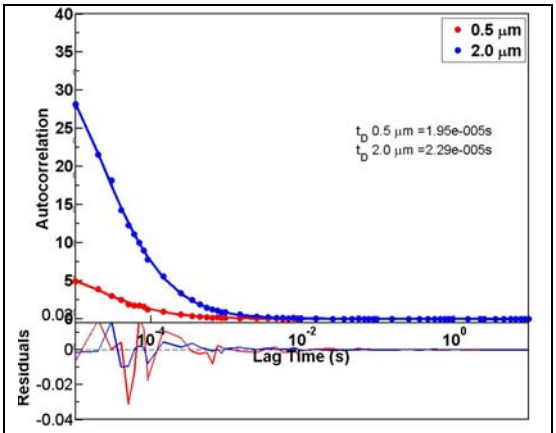

Figure S2: Representative autocorrelation curves for Alexa. Both 0.5 and 2.0 µm data sets are pictured, as well as the residuals below the curves.

It is important to note that, although there is an inverse relationship between the concentration and the autocorrelation amplitude, other factors such as dye photophysics, brightness, and scattering as a function of depth within the sample complicate the observed relationship, as shown in Figures S1 and S2.

II. SINGLE MOLECULE BLIP FREQUENCY ANALYSIS:

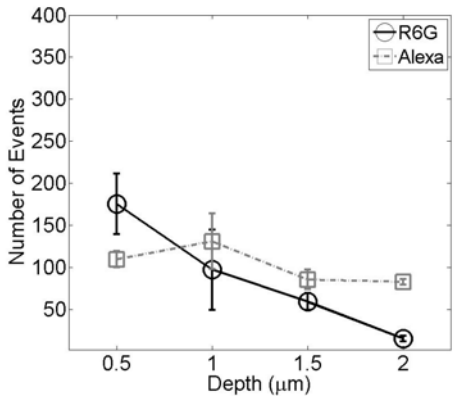

Figure S3: Mean events for R6G and Alexa in acidic conditions. The spread in intensity values at each depth reflect reproducibility from multiple experiments. Lines are drawn as a guide for the eye.