

**Measuring the diffusion coefficient of lipids at the nanometer scale: a thought experiment based on dye sensitized fluorescence**

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**Abstract**

Förster resonant energy transfer is effective on a typical distance  $R_F \sim 5\text{nm}$ . We discuss how this could be exploited in a FCS analogue experiment at very high spatial resolution. We give estimates and try to set the minimal requirements needed for such an observation.