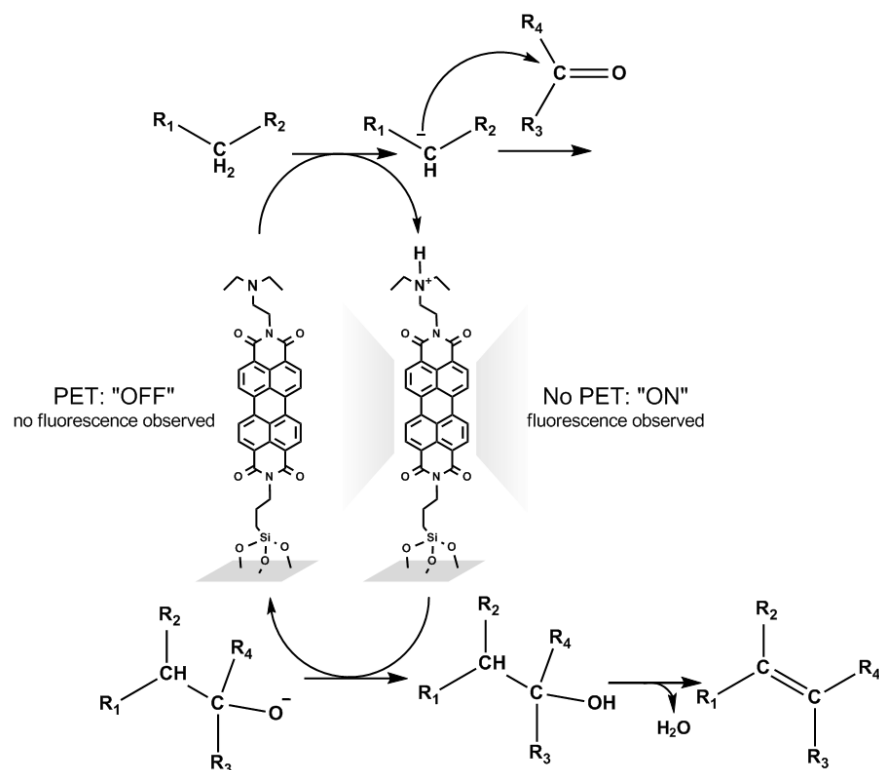
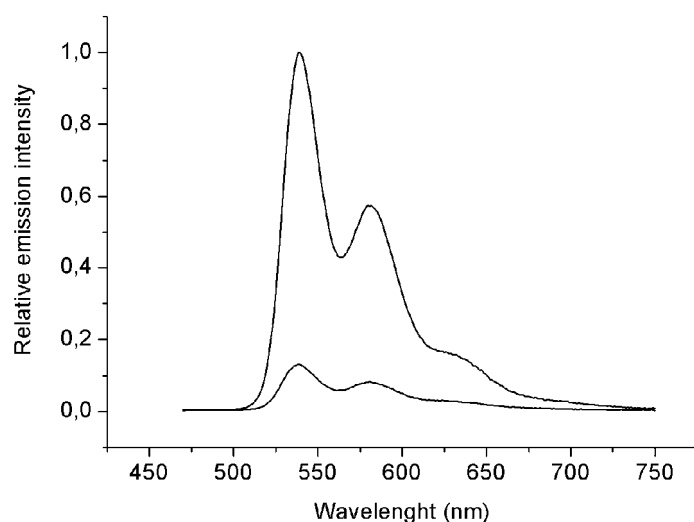


Supplementary information for “Towards direct monitoring of discrete events in a catalytic cycle at the single molecule level”



Schematic illustration of the molecular reporter system in the specific case of a base catalyzed Knoevenagel condensation. The depicted reaction scheme involves sequential protonation and deprotonation of the base catalyst, which translates in switching the observable fluorescence signal on and off.



Fluorescence enhancement upon protonation of compound (6). Emission spectra were taken in 50:50 EtOH:water mixtures according to the method employed in ref. 20. The upper spectrum was recorded in a 3 ml quartz cuvette at pH 1, the lower at pH 11 while exciting at 452 nm on a Horiba Jobin Yvon FluoroLog fluorimeter. The pH-values were adjusted using HCl and triethylamine respectively.