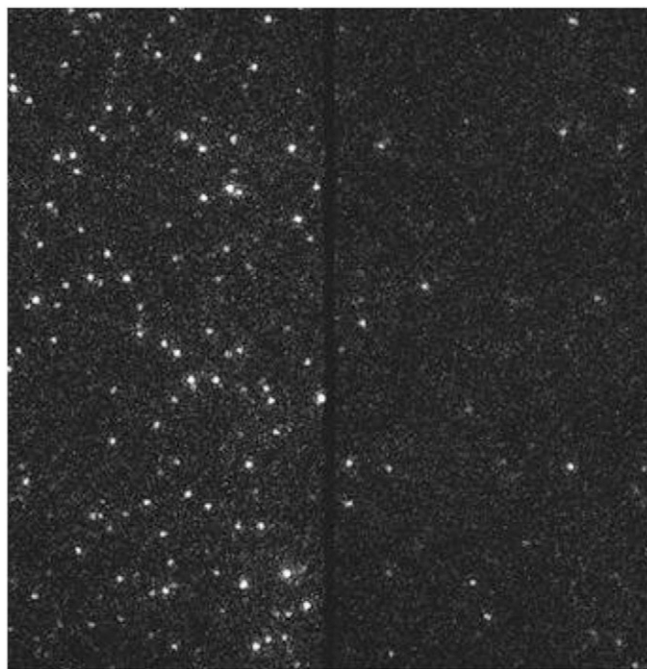


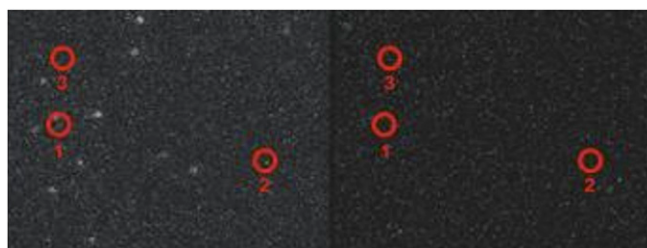
Supporting Information

McLoughlin et al. 10.1073/pnas.1311761110



Movie S1. Raw experimental data. This movie is 80 seconds long and plays in real time with an image acquisition time of 0.1 s. The width of each channel is 35 μm , the donor channel is on the left, and lighter color corresponds linearly to greater intensity. Molecules frequently appear and disappear in each channel. The majority of molecules exhibit low mobility in the interfacial plane, but the careful eye can identify some molecules that diffuse along the surface.

[Movie S1](#)



Movie S2. Raw experimental data of representative molecules that exhibit conformational changes. Three areas are circled and numbered such that one number indicates the same area in each channel. In each area, sequentially in time from 1 to 3, a molecule first appears in the acceptor channel. Acceptor intensity subsequently decreases significantly, but increases concomitantly in the same area of the donor channel. This loss of FRET is consistent with a conformational change of OPH. This 38-second movie plays in real time with an image acquisition time of 0.1 s, and the width of each channel is 35 μm .

[Movie S2](#)