



FIGURE 2. (A) Concept of spFRET. Left schematic shows the exponential decay (depicted by curved line) of the intensity of the evanescent field as a function of distance from surface. Right schematic depicts a single molecule (protein or DNA molecule) containing two dyes, a donor dye and an acceptor dye. In the initial configuration of the single molecule, the two dyes are too far away for energy transfer; if there is a conformational transition in the molecule that brings the donor dye and the acceptor dye within 1–8 nm of each other, FRET occurs. (B) Schematic of the evanescent-field fluorescence microscope (EFFM). (C) Schematic of flow cell construction.