

Hydrogen Peroxide Sensors for Cellular Imaging Based on Horse Radish Peroxidase Reconstituted on Polymer-Functionalized TiO₂ Nanorods

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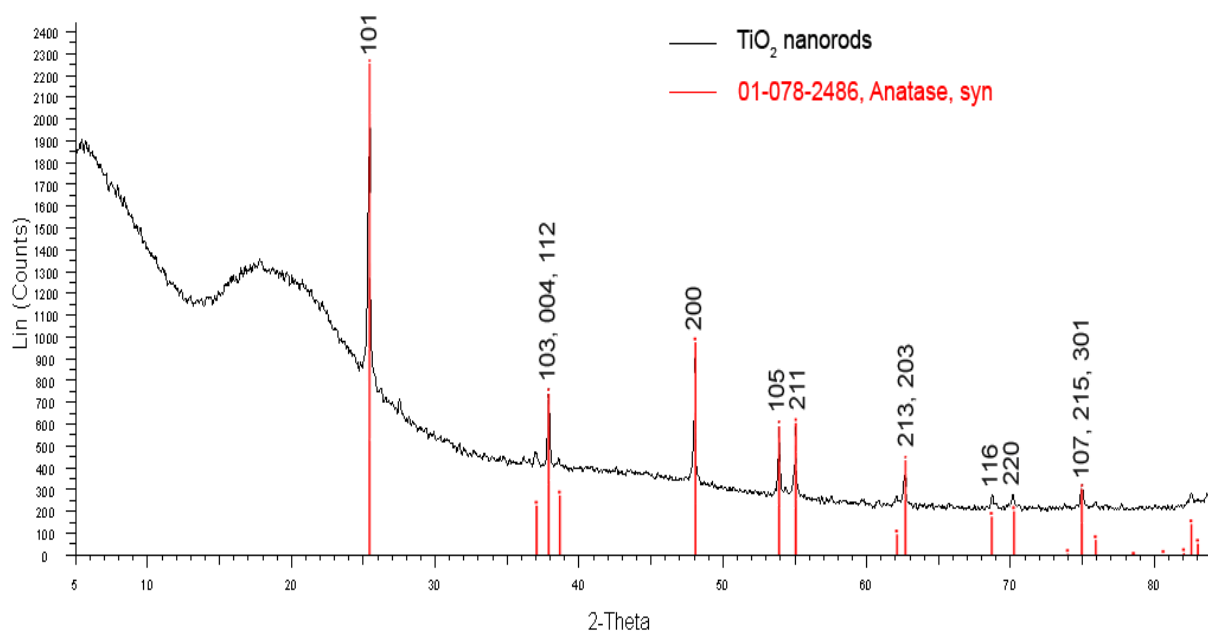


Fig. S1. X-ray diffraction pattern of as synthesized TiO_2 nanorods. The pattern can be fully indexed to anatase.

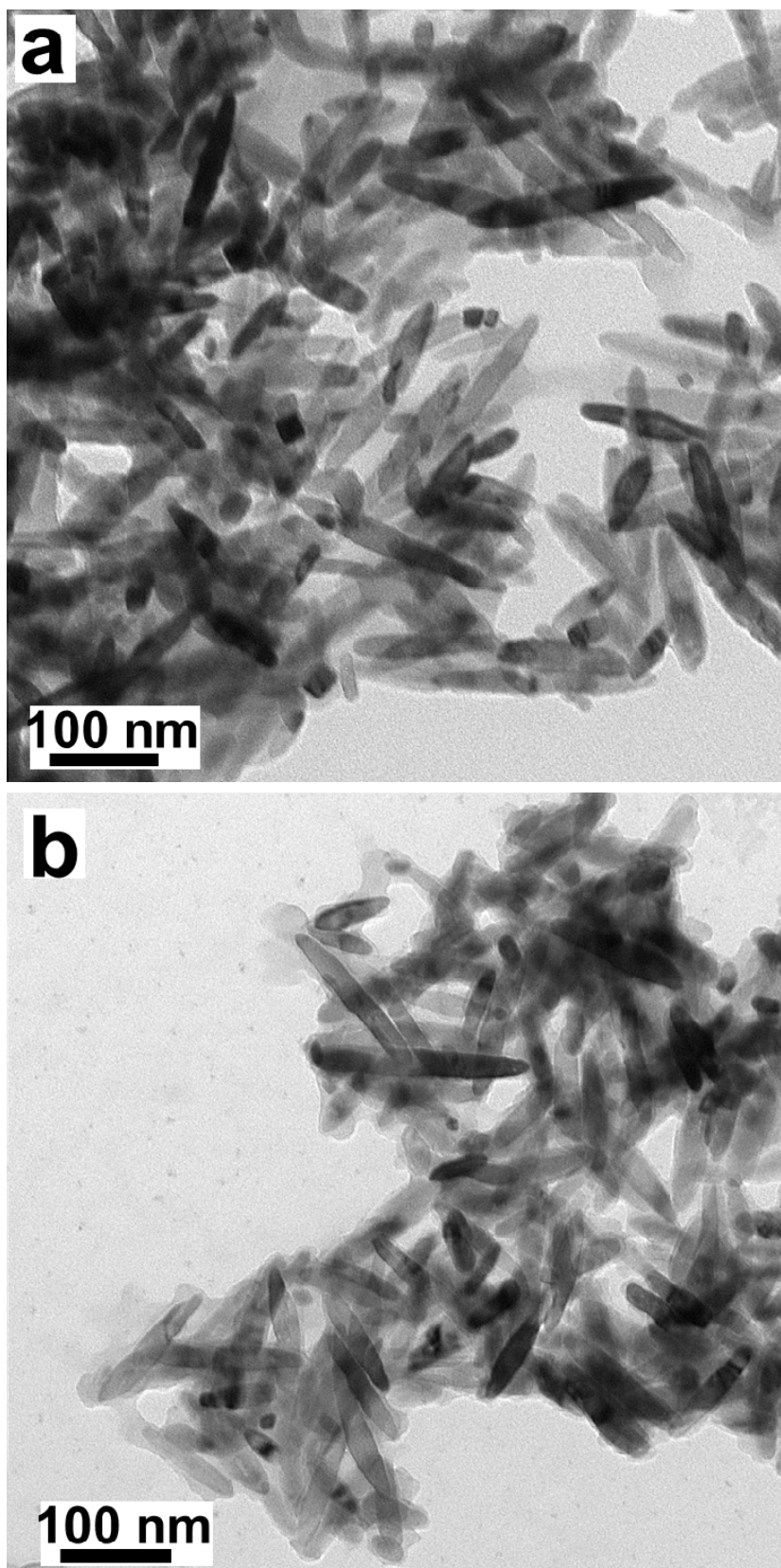
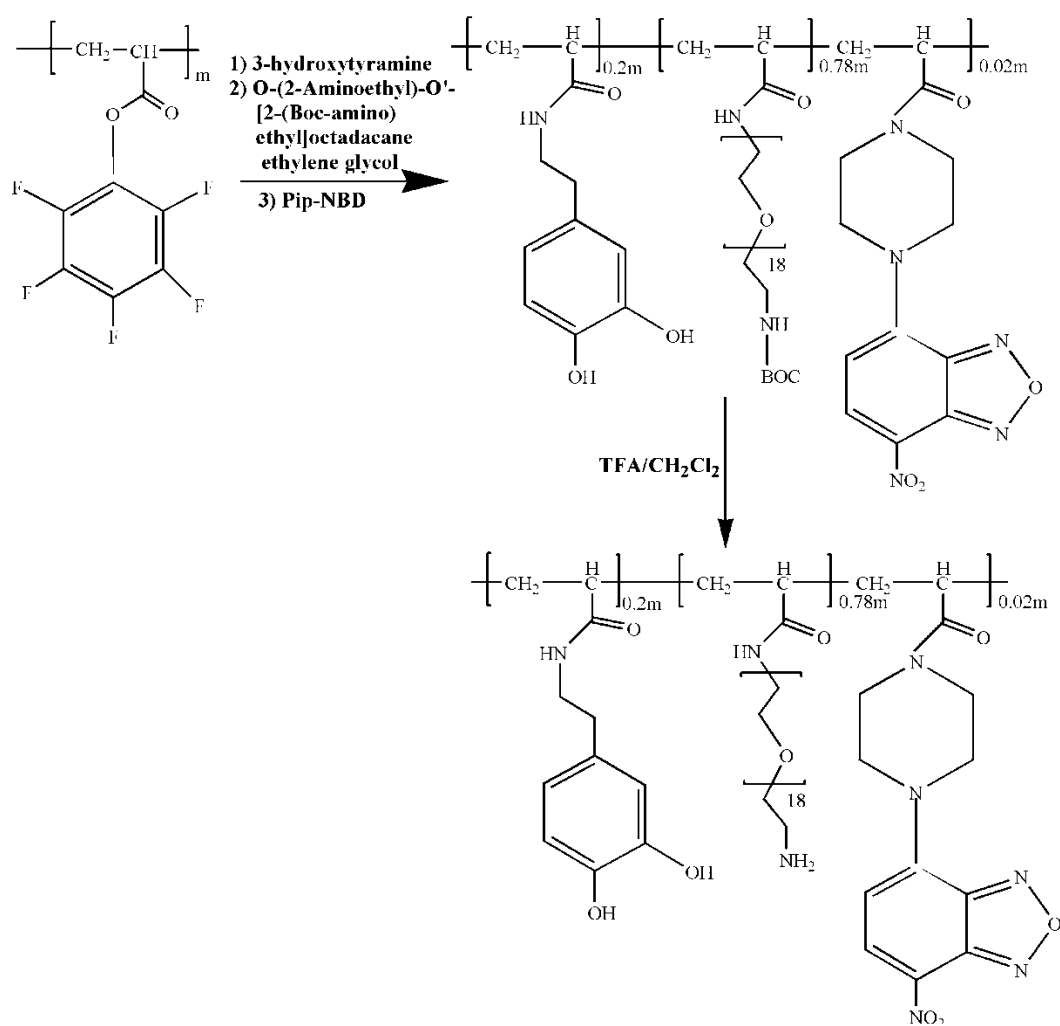


Fig. S2. TEM images of (a) polymer functionalized TiO₂ nanorods and (b) after reconstitution of HRP which shows organic matrices at the surface of TiO₂ nanorods.



Scheme S1. Stepwise synthesis of the multifunctional polymeric ligands, which contain 3-hydroxytyramine as anchors for the nanorods, PEG chain with free amine head groups to further couple functional molecules, and fluorescent dye (NBD used for optical detection).