

Electronic Supplementary Information

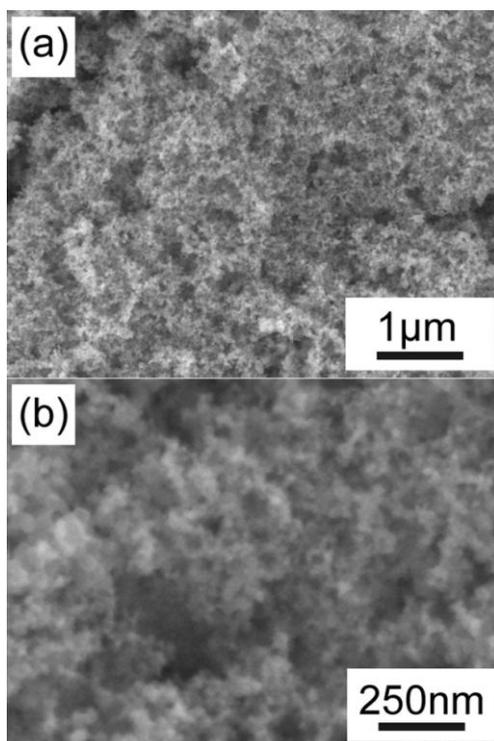


Fig. S1 FESEM images of TiN precursor powder: (a) low and (b) high resolution

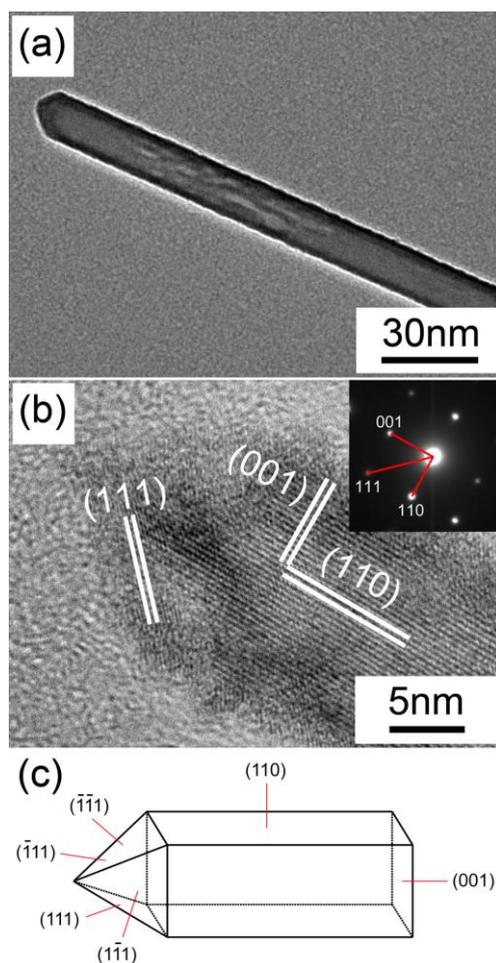


Fig. S2 (a) TEM image of a single N-doped TiO₂ nanorod, (b) HRTEM image of the tapered tip in N-doped TiO₂ nanorod, the inset is corresponding SEAD pattern in the tip region, and (c) the schematic orientation relations of the {111} facets on the tapered tip.

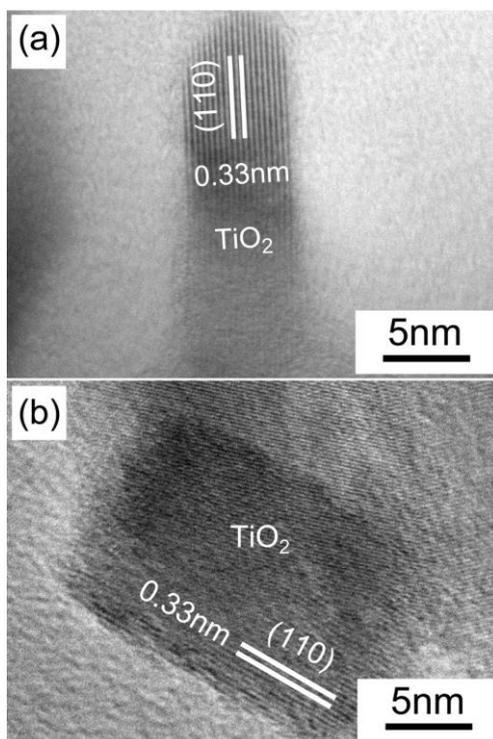


Fig. S3 HRTEM images of TiO₂ nanocrystals from products hydrothermal treated for (a) 1 hr and (b) 2 hrs.

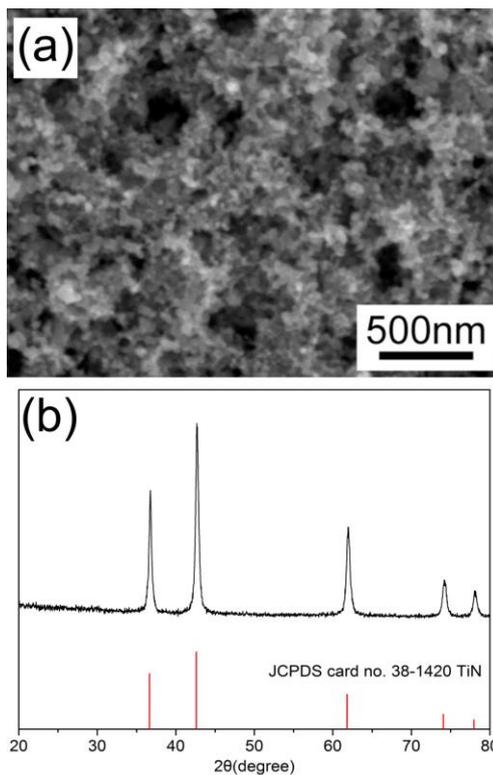


Fig. S4 (a) FESEM image and (b) XRD pattern of the product hydrothermal treated at 180 °C for 12 hrs without HCl.

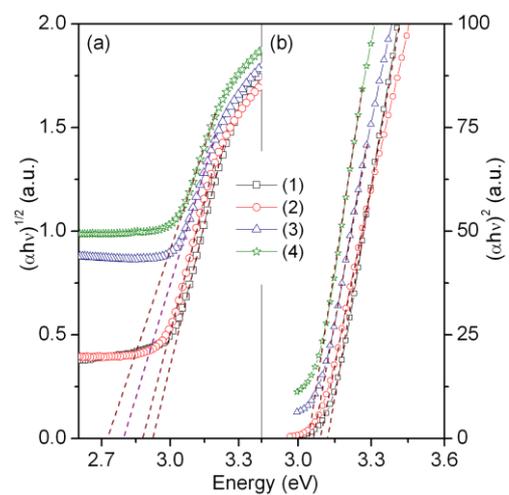


Fig. S5 Plots of $(\alpha h\nu)^n$ vs. $h\nu$ for the N-doped TiO₂ nanorods: (a) $n=1/2$ and (b) $n=2$