

Supporting information

Fabrication of titania nanotubes (TiO₂nts)

TiO₂nts were fabricated by the electrochemical anodization of Ti foil in an electrolyte containing 2 %wt. water, 1.3 %wt. NH₄F and 96.7 %wt. glycerol. Prior to the anodization, Ti foil was cut into the desired shape and dimension then cleaned by sonicating in acetone, propanol and methanol sequentially for 10 minutes each. After the sonication, the foil was rinsed with deionized (DI) water and dried with compressed air. The anodization was carried out in a two-electrode electrochemical cell: Ti foil as working and Pt foil as counter electrode. A constant voltage of 60V was applied to the cell for 3h. After the anodization finished, the Ti foil was removed from the cell immediately, rinsed abundantly with DI water and dried with the compressed air.