

Supplementary Data

Goodness of fit (GoF) is a statistical model describing how well the experimental results obtained with a series of observations. GoF value is calculated using equation (1).

$$\text{GoF} = \frac{R_{wp}}{(R_{exp})^2} \quad (1)$$

Where GoF is the match value, R_{wp} (weighted profile R-factor) is the simplest difference index and R_{exp} (expected R-factor) is the expected "best R_{wp} " quantity. The Rietveld refinement plot is depicted in Figures S1–S4.

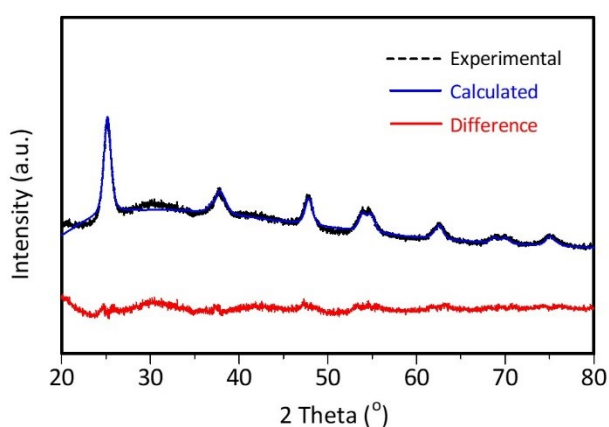


Figure S1. Rietveld refinement of XRD pattern of synthesized TiO_2 .

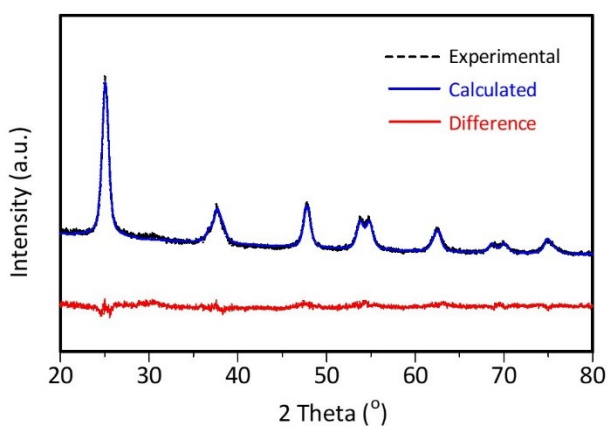


Figure S2. Rietveld refinement of XRD pattern of composite $\text{TiO}_2\text{-SiO}_2$ 1:0.5.

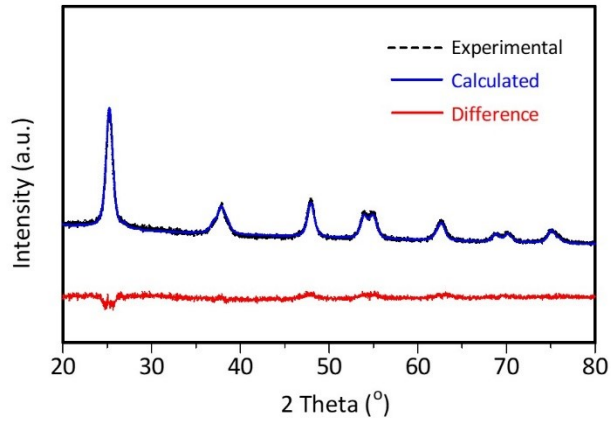


Figure S3. Rietveld refinement of XRD pattern of composite TiO₂-SiO₂ 1:1.

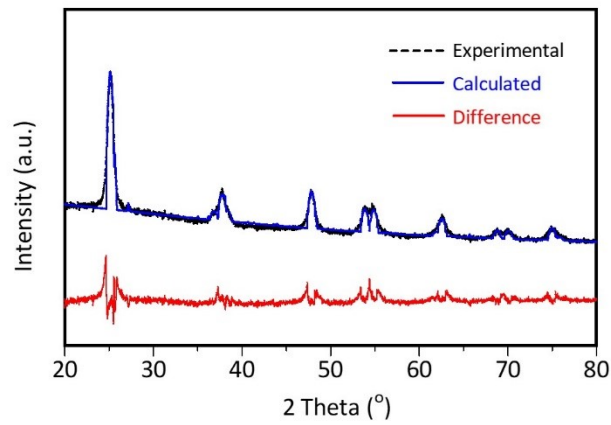


Figure S4. Rietveld refinement of XRD pattern of composite TiO₂-SiO₂ 1:2.