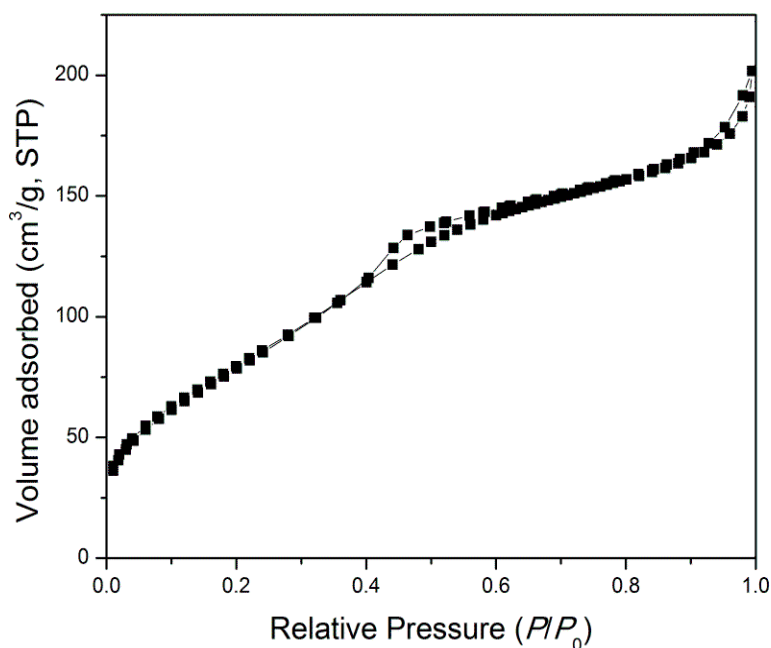


*Supporting Information*

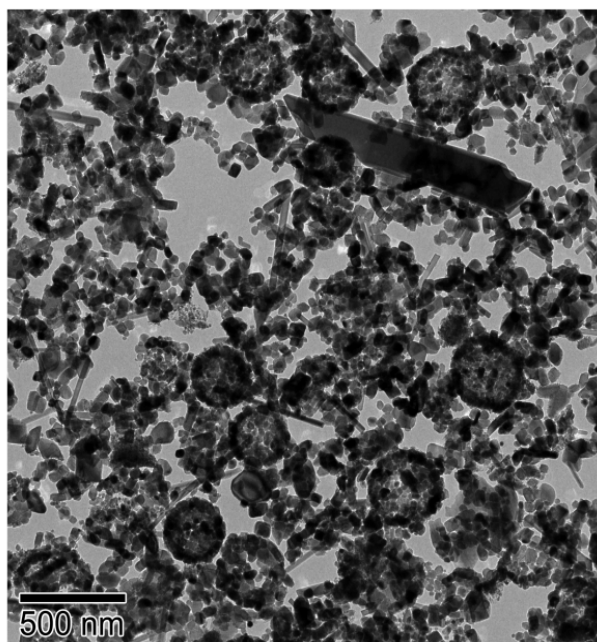
**Control of the Nanoscale Crystallinity in Mesoporous TiO<sub>2</sub> Shells for Enhanced Photocatalytic Activity**

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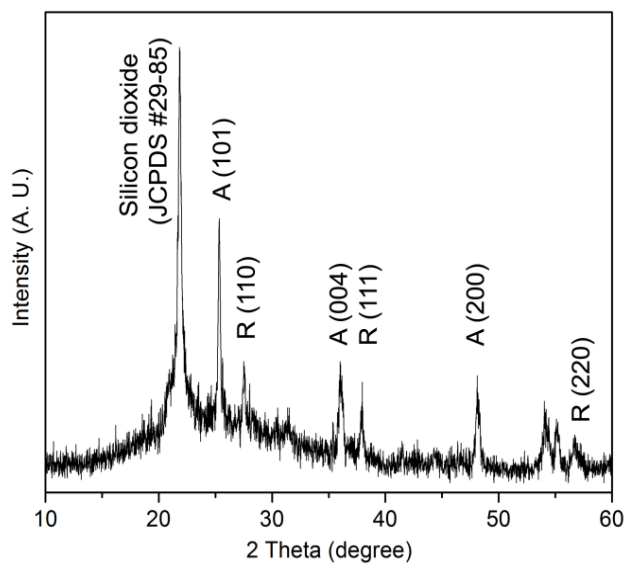
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**Figure S1:** Nitrogen adsorption isotherm of mesoporous TiO<sub>2</sub> shells prepared by calcining sol-gel derived SiO<sub>2</sub>@TiO<sub>2</sub>@SiO<sub>2</sub> composite particles at 800 °C and then removing silica by etching in NaOH solution.



**Figure S2:** TEM image of TiO<sub>2</sub> sample prepared by partial etching with NaOH and re-calcination at 900 °C for 4h.



**Figure S3:** XRD pattern of TiO<sub>2</sub> sample prepared by partial etching and re-calcination at 900 °C for 4h. (A: anatase, R: rutile)