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Low temperature synthesis of few-layer titanate nanobelts on Ti mesh and the hot-water induced transformations to highly photocatalytic active titania nanorods

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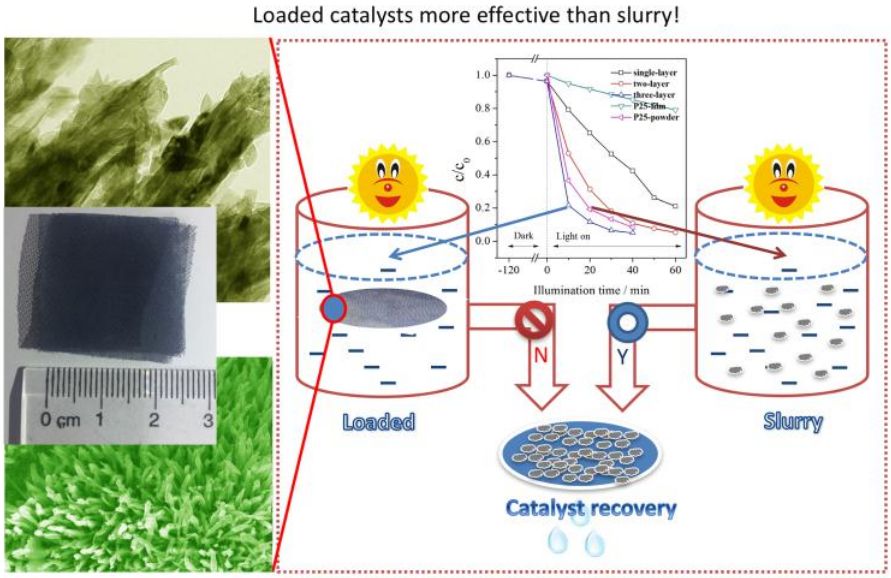
Graphic Abstract



A novel low temperature approach was developed to synthesize few-layer titanate nanobelts on metallic Ti mesh. After a subsequent hot water treatment, titania nanorods were achieved. The loaded titania exhibited a photocatalytic activity superior to that in a P25 slurry system.