Bismuth titanate modified and immobilized TiO<sub>2</sub> photocatalysts for water purification: broad pollutant scope, ease of re-use and mechanistic studies

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Figure S1. XRD traces of 7xBTO and the unmodified P25 enriched  $TiO_2$  sol derived surface



Figure S2. Stacked XRD traces showing the position of the broad peak around  $30^{\circ}$ 



Figure S3 SEM image of the BiOBr-TiO<sub>2</sub> precursor used to generate the 7xBTO sample, showing the presence of BiOBr nanoplates.



Figure S4. TEM image of plain P25 without suspension in the  $\rm Ti(OBu)_4$  sol



Figure S5. Left) Photograph of the photocatalytic batch reactor from above, Right) Schematic of the photocatalytic setup



Figure S6. Adsorption of the pollutants tested on the 7xBTO coated beads.



Figure S7. 1st order rate plot of the degradation of PCP



Figure S8. 1st order rate plot of the degradation of  $\mathsf{TNT}$ 



Figure S9. 1st order rate plot of the degradation of NTO



Figure S10. 1st order rate plot of the degradation of  $\ensuremath{\mathsf{PC}}$ 



Figure S11. 1st order rate plot of the degradation of  $\ensuremath{\mathsf{NP}}$ 



Figure S12. 1st order rate plot of the degradation of  $\ensuremath{\mathsf{TC}}$ 



Figure S13. Spectral changes on photocatalytic degradation of NTO



Figure S14. Spectral changes on photocatalytic degradation of TNT