

Electronic Supplementary Information (ESI)

Metastable β -Bi₂O₃ nanoparticles with High Photocatalytic Activity from Polynuclear Bismuth Oxido Clusters

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Total number of pages: 12.

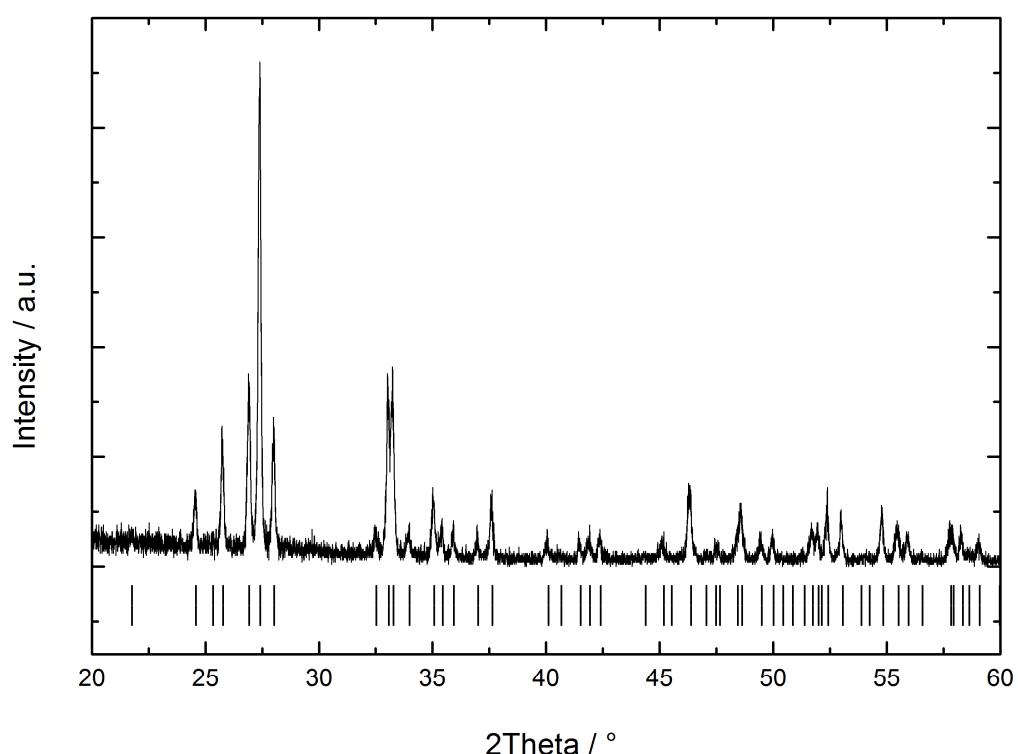


Fig. S1 Powder X-ray diffraction pattern of sample **P1-2A** (reference: α -Bi₂O₃, ICDD 01-070-8243).

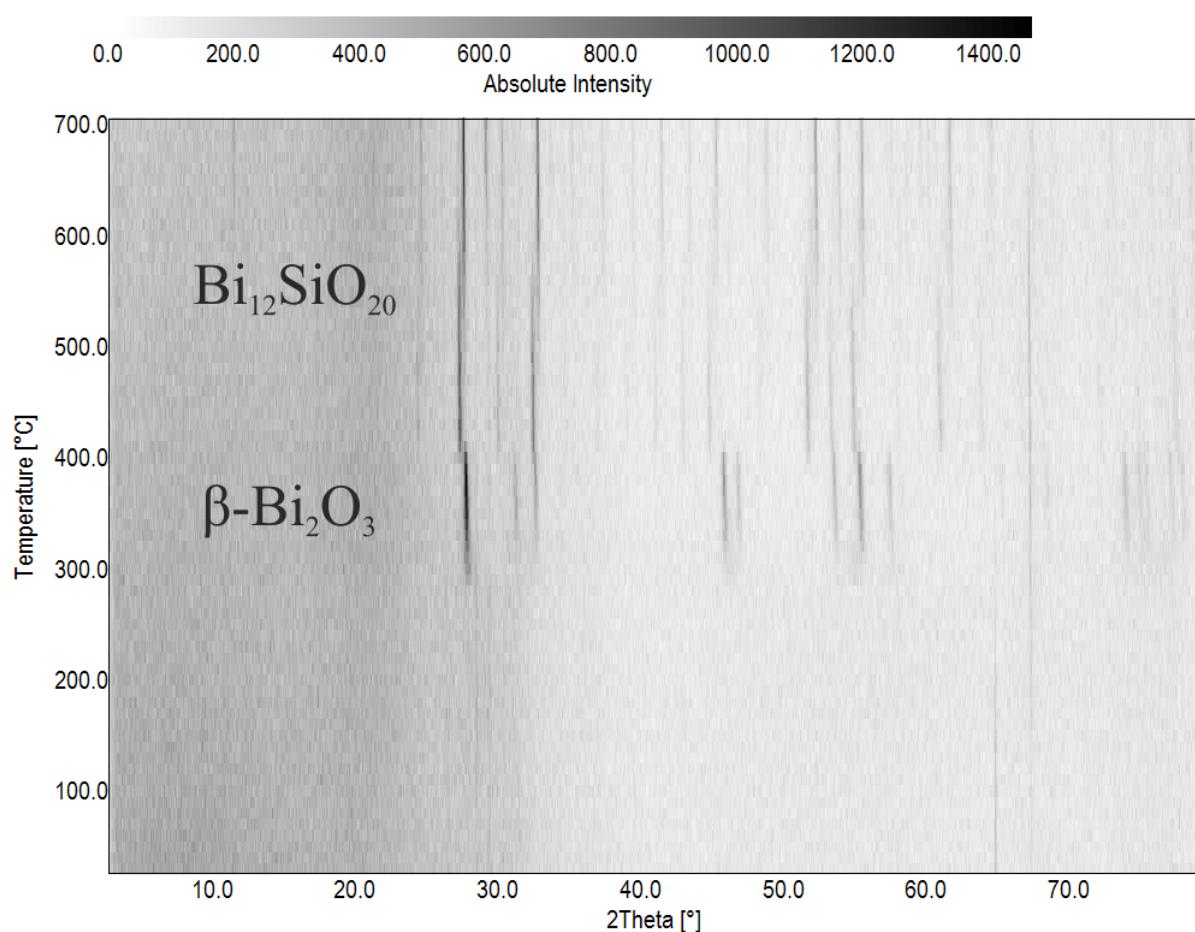


Fig. S2 Temperature dependent PXRD of the hydrolysis product **P1-3**.

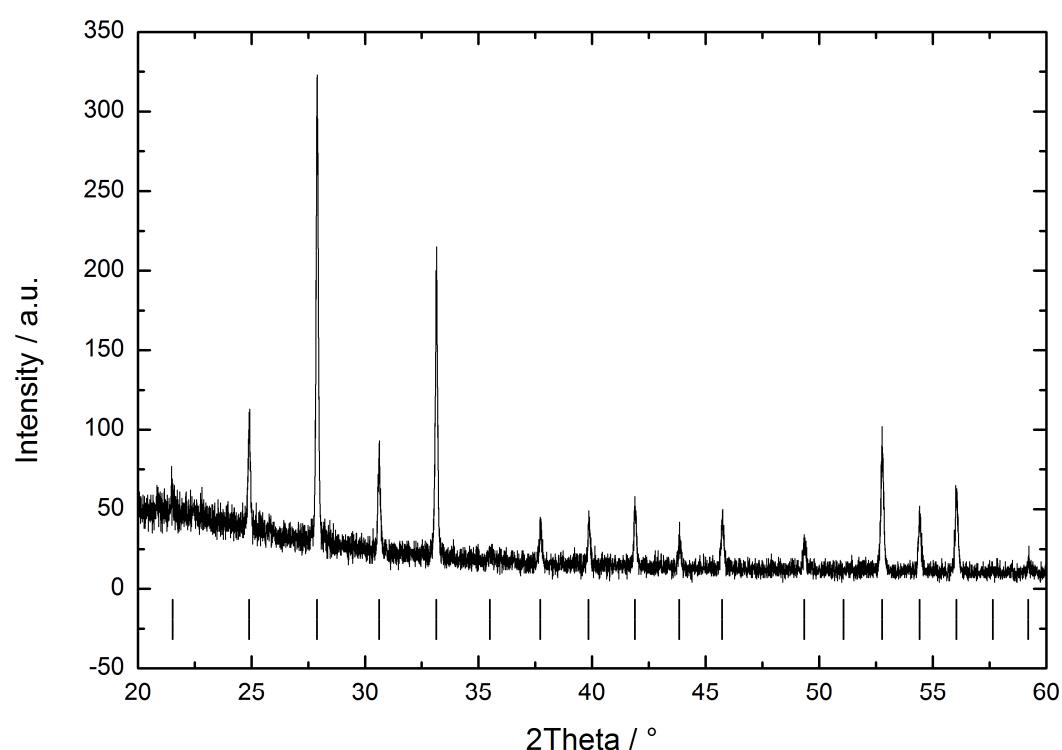


Fig. S3 Powder X-ray diffraction pattern of sample **P1-3**, annealed at 700 °C (reference: $\text{Bi}_{24}\text{Al}_2\text{O}_{39}$, ICDD 00-042-0184).

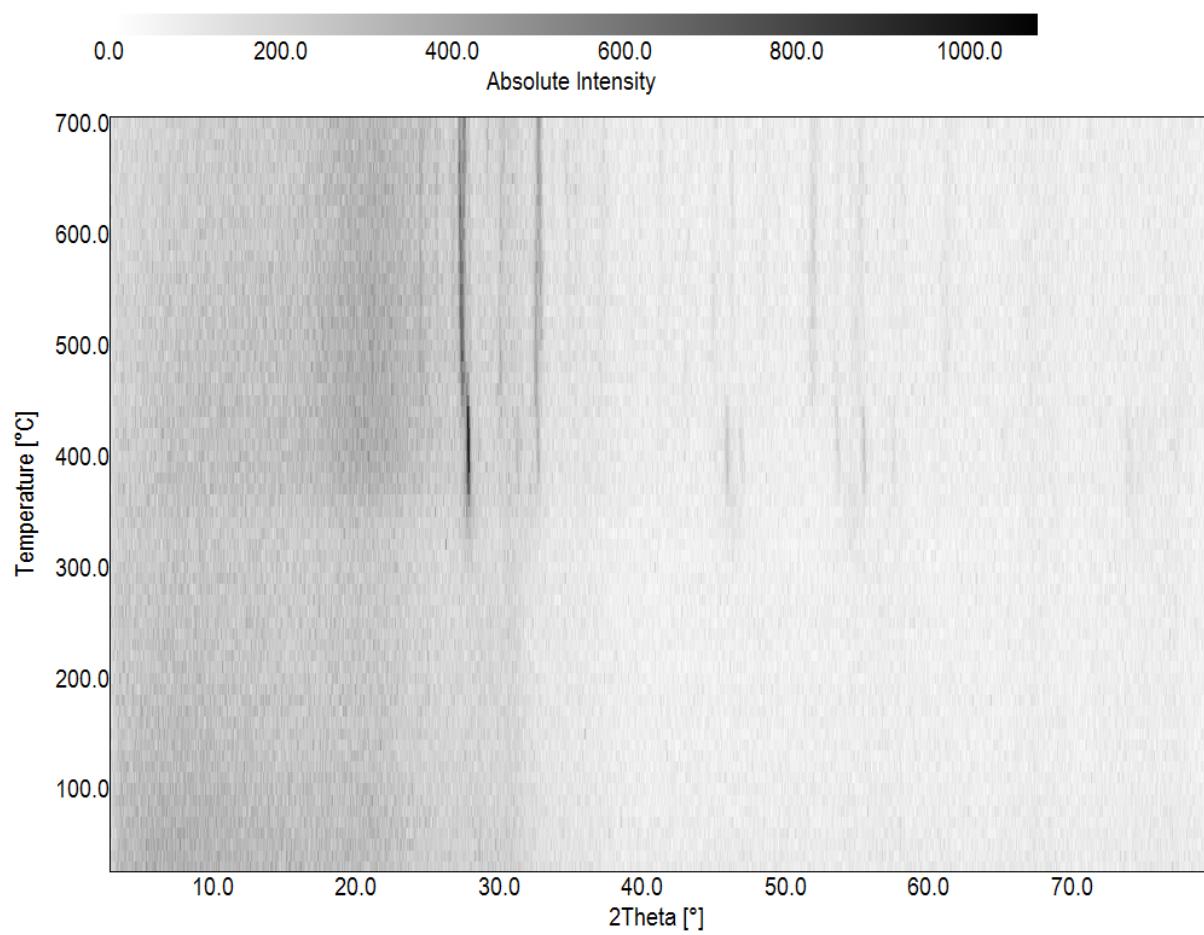


Fig. S4 Temperature dependent PXRD of sample **P2-1**.

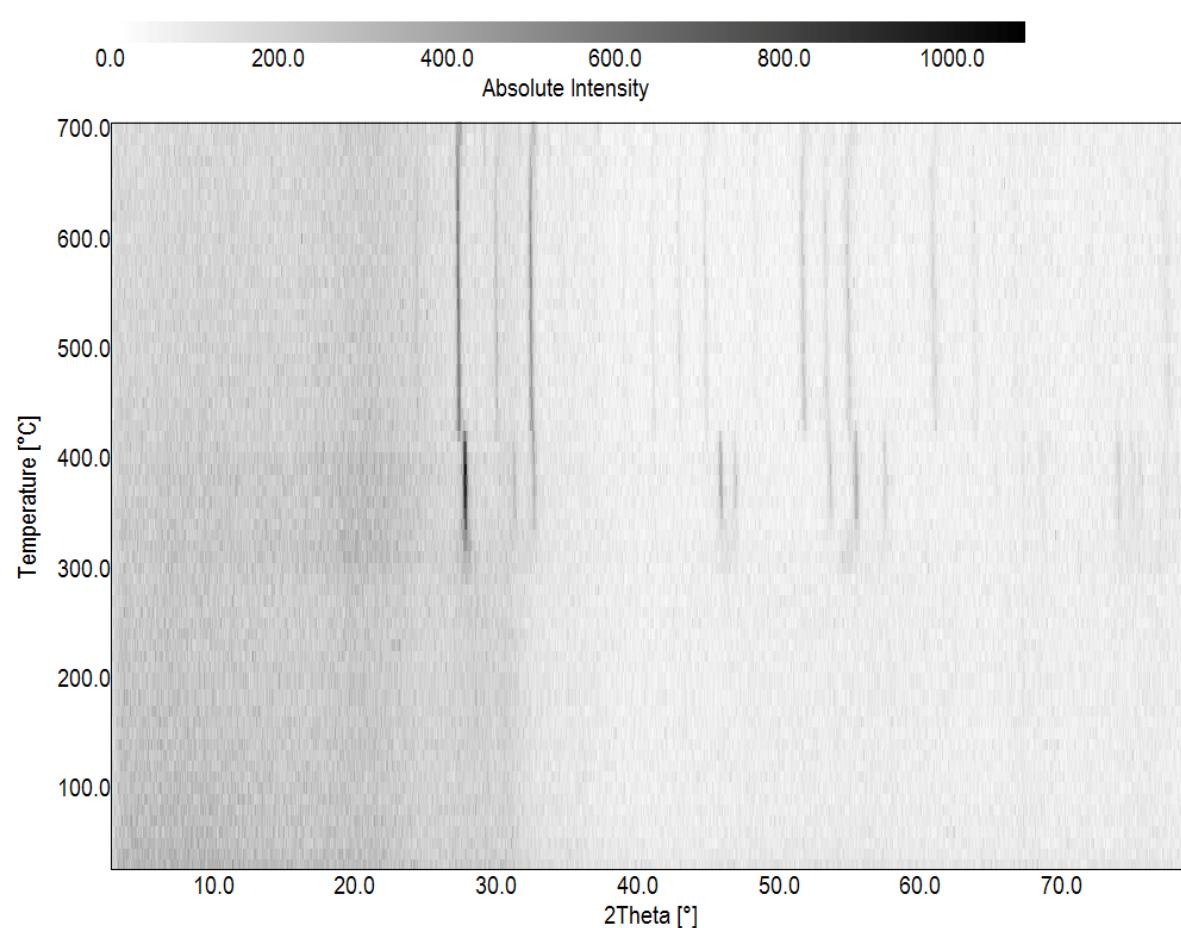


Fig. S5 Temperature dependent PXRD of sample **P3-1**.

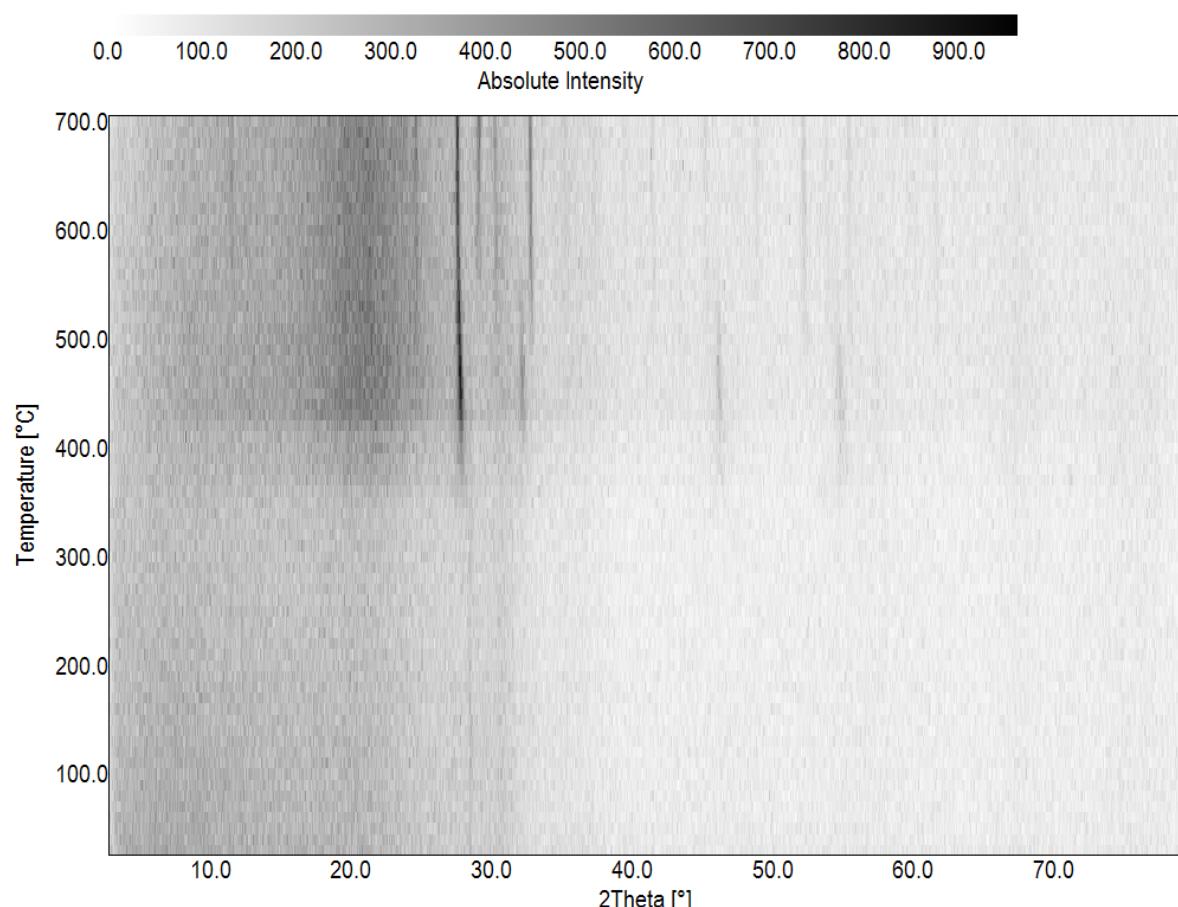


Fig. S6 Temperature dependent PXRD of sample **P4-1**.

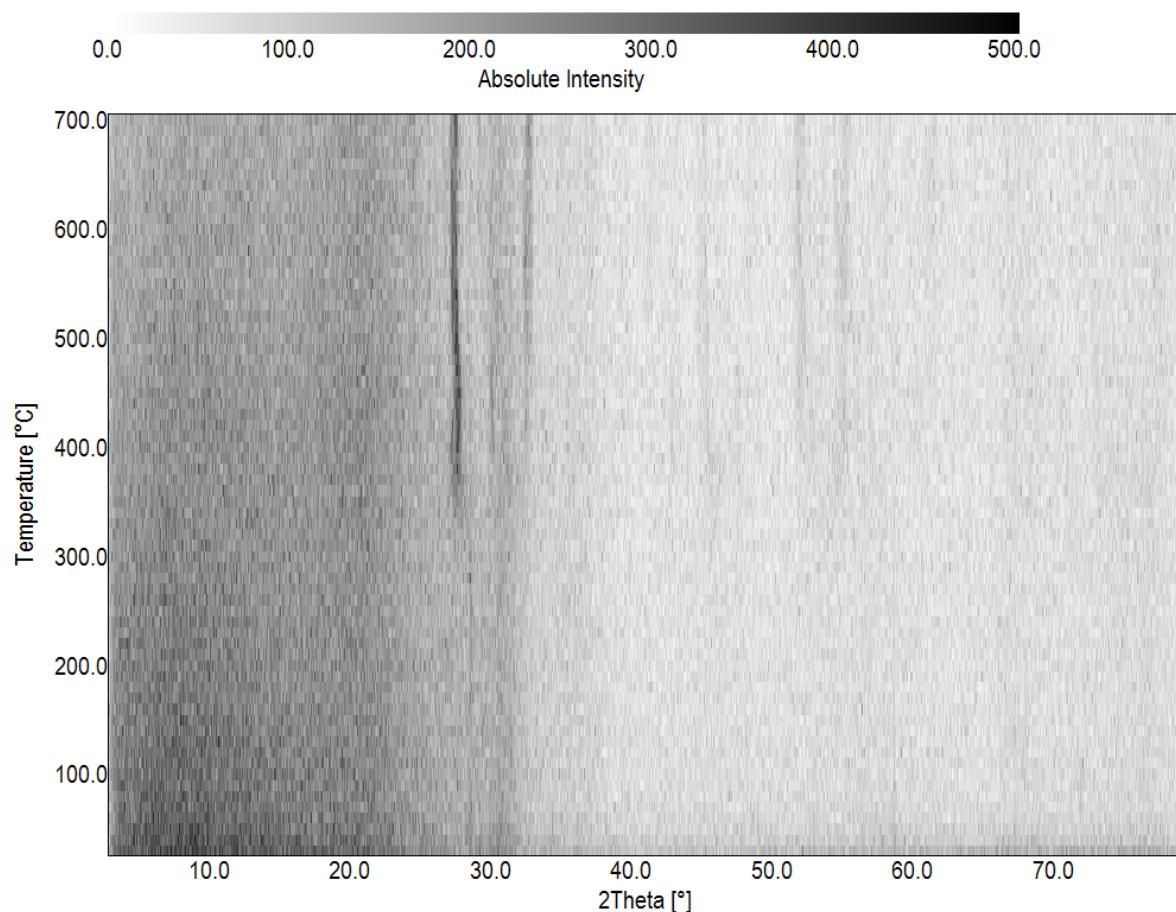


Fig. S7 Temperature dependent PXRD of sample **P2-2**.

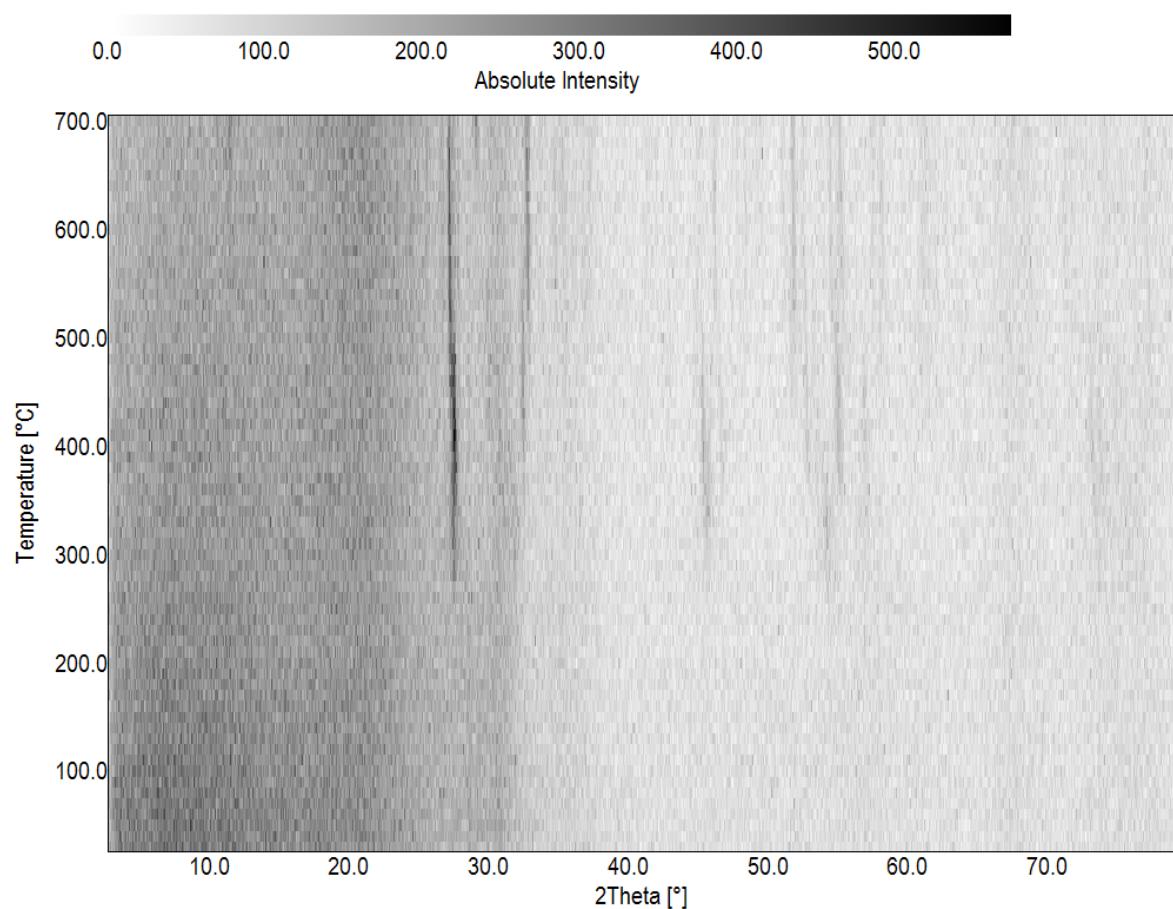


Fig. S8 Temperature dependent PXRD of sample **P4-2**.

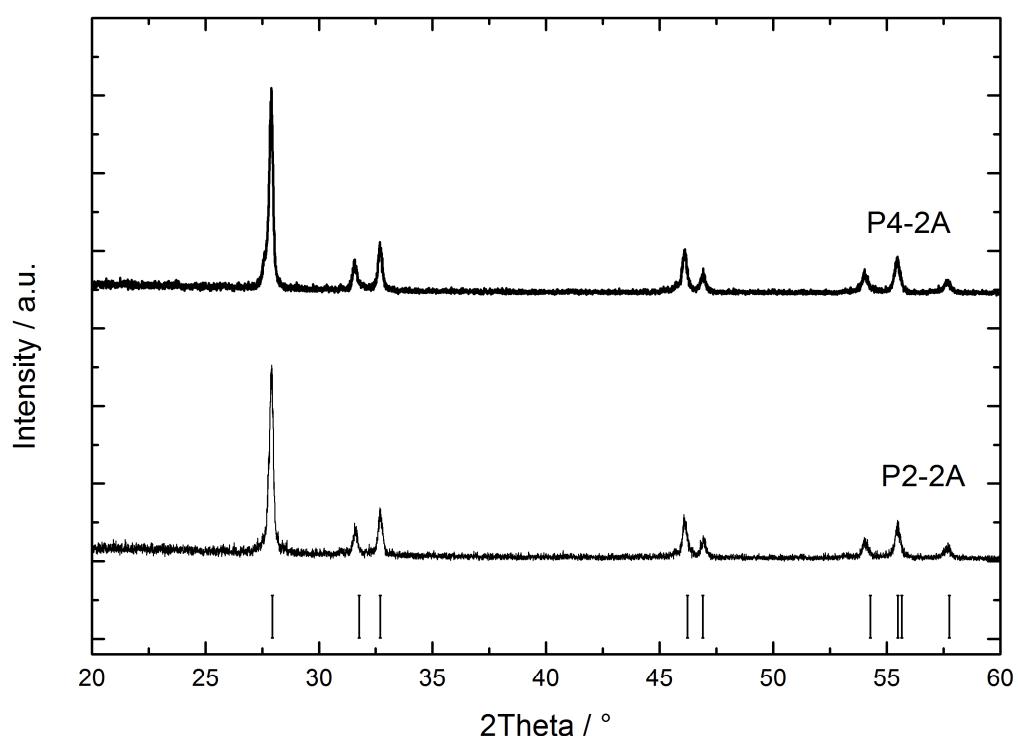


Fig. S9 Powder X-ray diffraction pattern of samples **P2-2A** and **P4-2A** (reference: β - Bi_2O_3 , ICDD 00-027-0050).

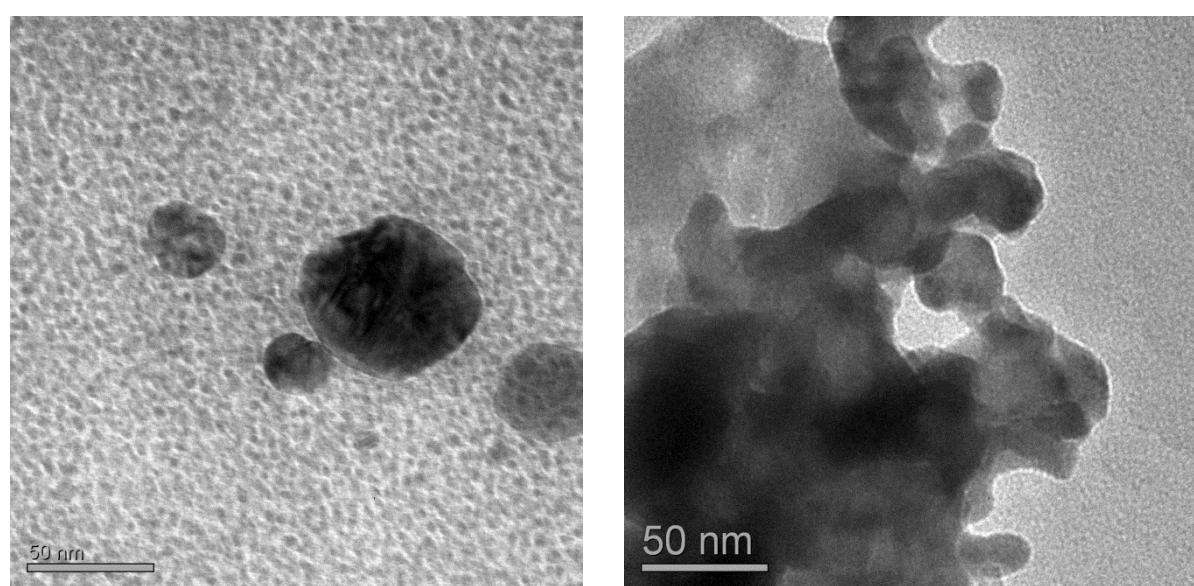


Fig. S10 TEM images of samples **P2-2A** (left) and **P4-2A** (right).

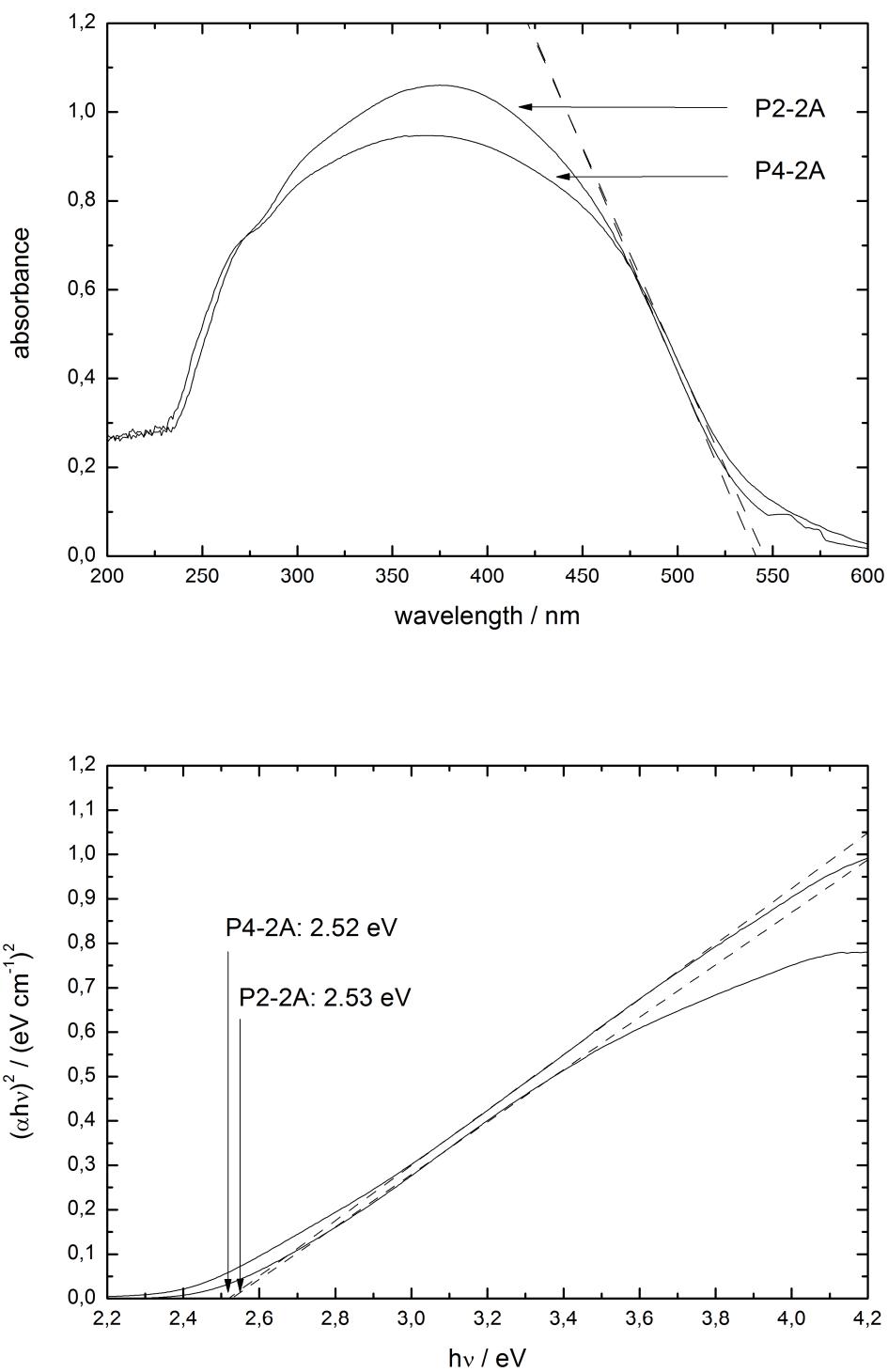


Fig. S11 UV-Vis diffuse reflectance spectra (top) and $(\alpha h\nu)^2$ vs. $h\nu$ curves (bottom) of samples **P2-2A** and **P4-2A**.

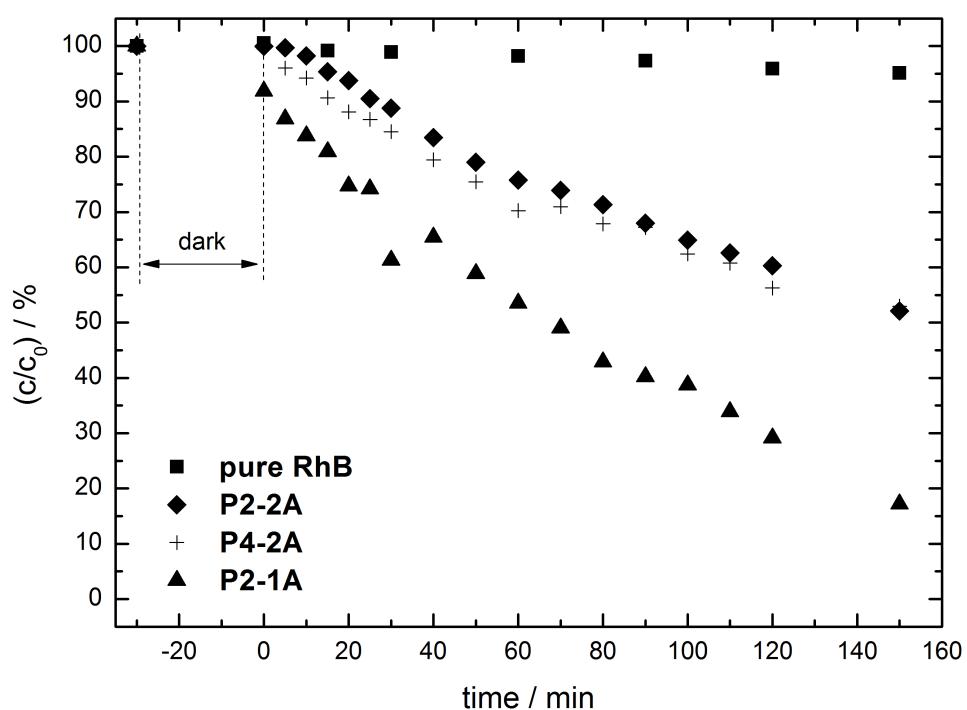


Fig. S12 Photodegradation of RhB under visible light ($t > 0$ min) using the samples **P2-1A**, **P2-2A** and **P4-2A** as photocatalysts. $t < 0$ min shows the adsorption behavior of the as-prepared samples towards RhB.