

# Supplementary Information

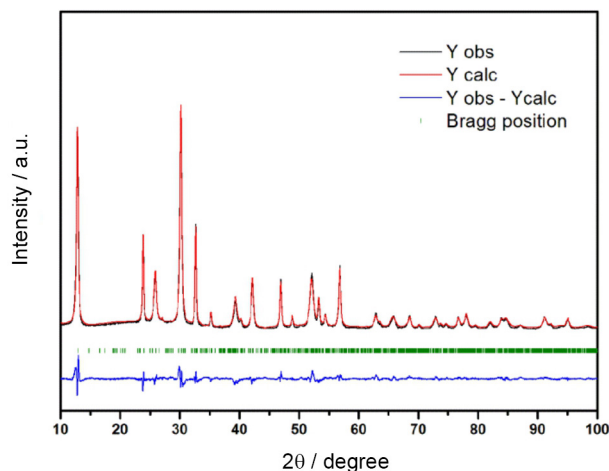
## Rapid Preparation of $(\text{BiO})_2\text{CO}_3$ Nanosheets by Microwave-Assisted Hydrothermal Method with Promising Photocatalytic Activity Under UV-Vis Light

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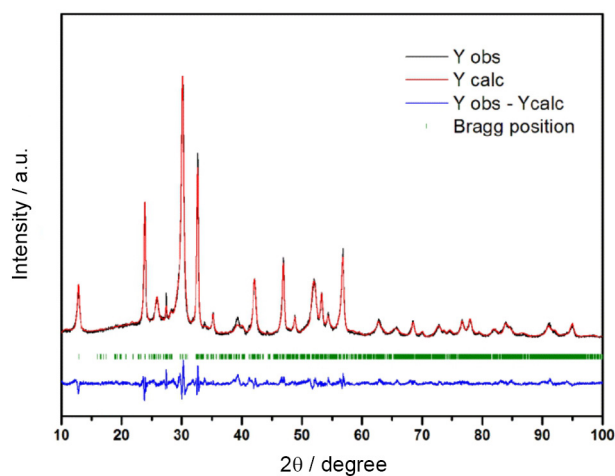


**Figure S1.** XRD pattern after structural refinement procedure using Rietveld's method for the sample obtained in 2 min heating. A difference (observed - calculated) plot is shown. Tick marks above the difference data indicate the reflection position.

**Table S1.** Quality scores refinement by Rietveld Method for the sample obtained in 2 min heating

$R_{wp} / \%$	$R_{Bragg} / \%$	$\chi$
9.45	5.58	2.21
Phase 1 / %	Phase 2 / %	Phase 3 / %
99.96	11.08E-07	39.78E-03

Phase 1 =  $\text{Bi}_2\text{O}_2\text{CO}_3$ ; phase 2 =  $\beta\text{-Bi}_2\text{O}_3$ ; phase 3 =  $\alpha\text{-Bi}_2\text{O}_3$ .



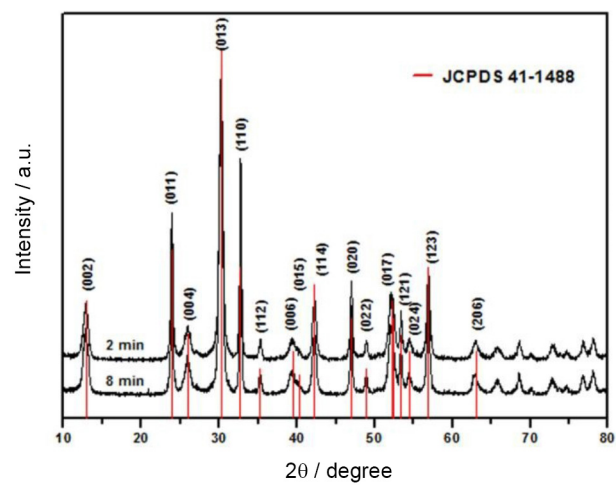
**Figure S2.** XRD pattern after structural refinement procedure using Rietveld's method for the sample obtained in 8 min heating. A difference (observed - calculated) plot is shown. Tick marks above the difference data indicate the reflection position.

**Table S2.** Quality scores refinement by Rietveld Method for the sample obtained in 8 min heating

$R_{wp} / \%$	$R_{Bragg} / \%$	$\chi$
7.92	9.91	1.89
Phase 1 / %	Phase 2 / %	Phase 3 / %
81.32	7.84	10.84

Phase 1 =  $\text{Bi}_2\text{O}_2\text{CO}_3$ ; phase 2 =  $\beta\text{-Bi}_2\text{O}_3$ ; phase 3 =  $\alpha\text{-Bi}_2\text{O}_3$ .

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**Figure S3.** X-ray diffraction of the  $(\text{BiO})_2\text{CO}_3$  samples recovered after the photocatalytic experiment.