Supporting Information

Innovative and Cost-Efficient BiOI Immobilization Technique on Ceramic Paper-Total Coverage and High Photocatalytic Activity

Zsolt Kása 1,*, Eszter Orbán 2, Zsolt Pap 3,4, Imre Ábrahám 5, Klára Magyari 3,4, Seema Garg 6 and Klara Hernadi 1,*

1 Department of Applied and Environmental Chemistry, University of Szeged, 6720 Szeged, Rerrich Béla sqr. 1, 6720, Szeged, Hungary
2 Department of Organic Chemistry, University of Szeged, Dóm sqr. 8, 6720, Szeged, Hungary; eszterorban94@chem.u-szeged.hu
3 Institute of Environmental Science and Technology, University of Szeged, Tisza Lajos Blvd. 103, 6720, Szeged, Hungary; pzsolt@chem.u-szeged.hu (Z.P.); klara.magyari@ubbcluj.ro (K.M.)
4 Nanostructured Materials and Bio-Nano-Interfaces Center Interdisciplinary Research Institute on Bio-Nano-Sciences, Babes-Bolyai University, Treboniu Laurian Str. 42, 400271, Cluj-Napoca, Romania
5 UniChem Ltd., T. 491, Kistelek, 6760, HUNGARY; abrahamimre@unichem.hu
6 Amity Institute of Applied Sciences, Amity University, Sector 125, Noida, Uttar Pradesh, 201313, India; sgarg2@amity.edu
* Correspondence: kasa.zsolt@chem.u-szeged.hu (Zs.K.); hernadi@chem.u-szeged.hu (K.H.); Tel.: +36304286022 (Zs.K.)

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Figure S1. Crystallographic- (a), optical- (b) and morphological (c, d) properties of the bulk ceramic paper.

Figure S2. Deconvoluted Raman spectra of CP_EtOH+EG_s.c and identify the overlapped B\text{3g} external Bi-I bond and the A\text{3g} external bond.
Figure S3. Kinetic linear simulation lines of RhB over the BiOI coated papers.

Figure S4. Scaling-up immobilization procedure (a), the caused changes on the XRD pattern (b), and SEM micrographs after the 5th spray-coating process (c, d).
**Figure S5.** Durability test with the scaled-up pilot bath reactor with 0.5 m² BiOI coated ceramic paper and 50 LRhB contaminated water as simulated photocatalytic test.

**Figure S6.** XRD pattern from the BiI₃ layer on the ceramic paper.