

SUPPLEMENTARY MATERIAL TO
**Removal of pharmaceutically active substance ibuprofen from
aqueous solution using TiO₂/ZSM-5 zeolite hybrid
photocatalysts**

SRNA J. STOJANOVIĆ¹, MARIJA Z. RISTIĆ², DANINA R. KRAJIŠNIK³,
VLADISLAV A. RAC⁴ and LJILJANA S. DAMJANOVIĆ-VASILIC^{1*}

¹University of Belgrade – Faculty of Physical Chemistry, Studentski trg 12–16, 11000 Belgrade, Serbia, ²University of Belgrade – ICTM, Department of Catalysis and Chemical Engineering, Njegoševa 12, 11000 Belgrade, Serbia, ³University of Belgrade – Faculty of Pharmacy, Vojvode Stepe 450, 11221 Belgrade, Serbia, and ⁴University of Belgrade-Faculty of Agriculture, Nemanjina 6, 11080 Belgrade, Serbia

J. Serb. Chem. Soc. 89 (0) (2024) 000–000

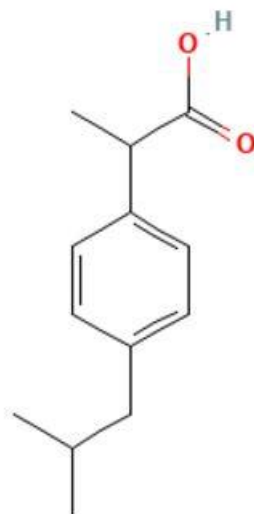


Fig. S-1. Structural formula of IBU (C₁₃H₁₈O₂) (PubChem Identifier: CID 3672, <https://pubchem.ncbi.nlm.nih.gov/compound/3672>, accessed October 1st 2024)

* Corresponding author. E-mail: ljiljana@ffh.bg.ac.rs

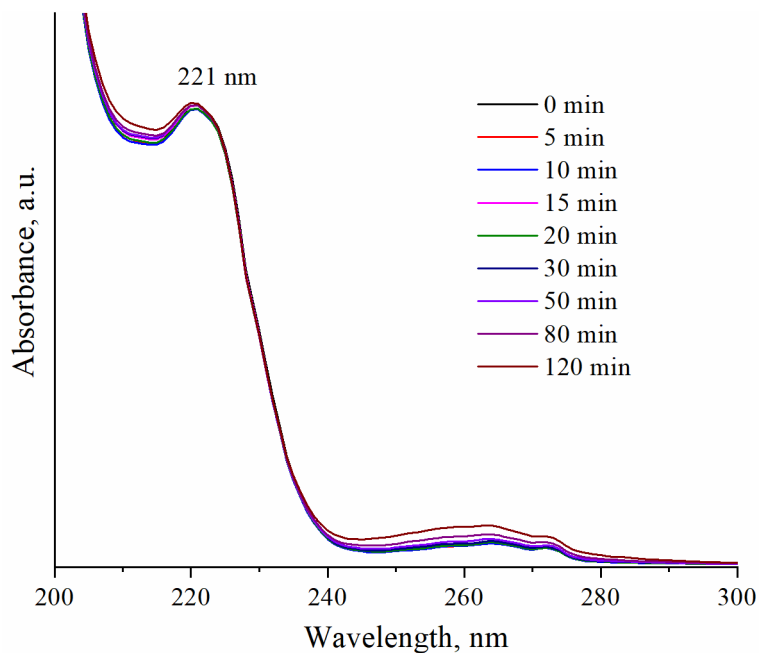


Fig. S-2. UV spectra of IBU aqueous solution after 0, 5, 10, 15, 20, 30, 50, 80 and 120 min of UV irradiation (Experimental conditions: $C_0 = 30 \text{ mg L}^{-1}$)

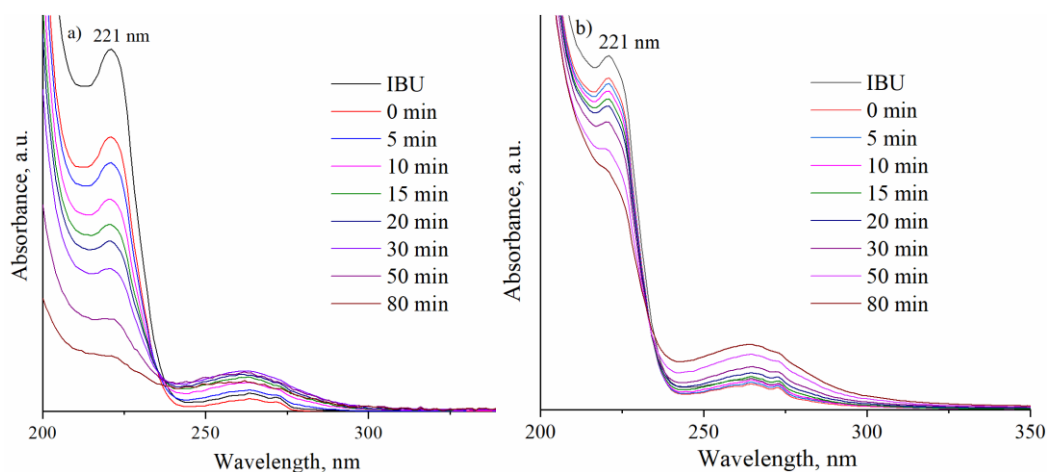


Fig. S-3. UV spectra of IBU in starting solution and in the presence of TZ(40) after 0, 5, 10, 15, 20, 30, 50 and 80 min of UV irradiation in a) deionized water and b) bottled drinking water (Experimental conditions: $C_0 = 30 \text{ mg L}^{-1}$, 1 g L^{-1} catalyst)

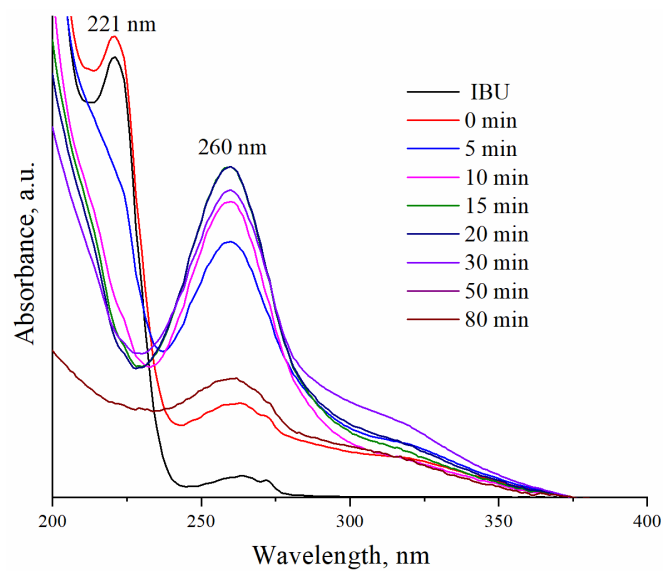


Fig. S-4. UV spectra of IBU in starting solution and in the presence of TiO_2 P25 nanoparticles after 0, 5, 10, 15, 20, 30, 50 and 80 min of UV irradiation in deionized water (Experimental conditions: $C_0 = 30 \text{ mg L}^{-1}$, 1 g L^{-1} catalyst).