

Supporting Information for:

Low-Temperature Synthesis of Cu-Doped Anatase TiO₂ Nanostructures Via Liquid Phase Deposition Method for Enhanced Photocatalysis

Mitsuhiro Honda ^{1,*}, Tsuyoshi Ochiai ², Popy Listiani ¹, Yuma Yamaguchi ¹ and Yo Ichikawa ¹

¹ Graduate school of Engineering, Nagoya Institute of Technology, Nagoya, Aichi 466-8555, Japan

² Materials Analysis Group, Kawasaki Technical Support Department, Kanagawa Institute of industrial Sci-ence and TEChnology (KISTEC), Kawasaki 213-0012, Japan

*Corresponding author: honda.mitsuhiro@nitech.ac.jp (M. Honda)

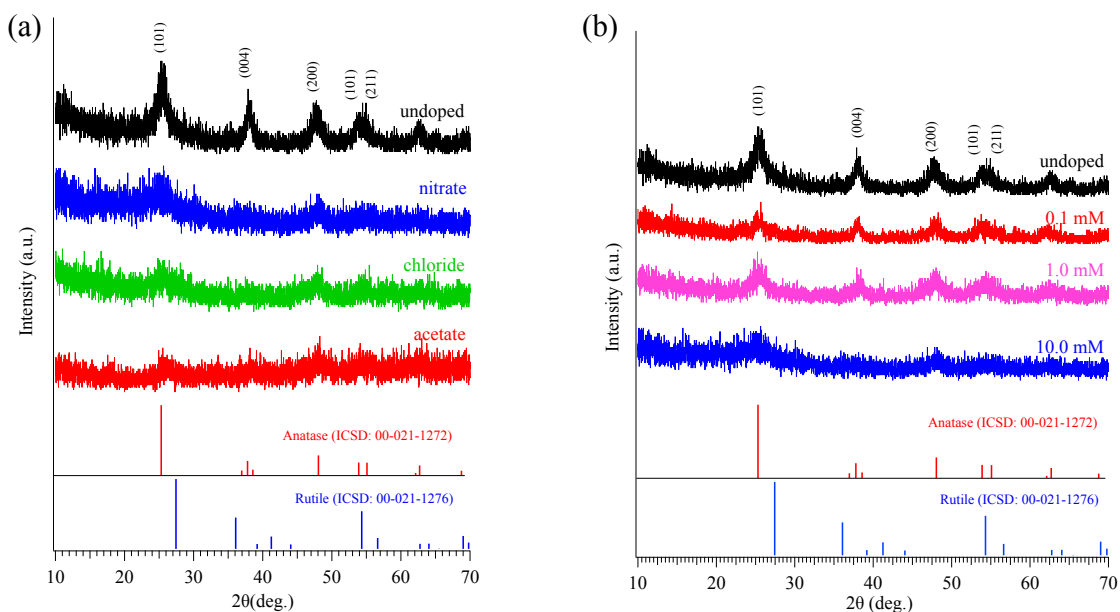


Figure S1 XRD patterns of undoped (black) and Cu-doped TiO₂ (colors). In panel (a), different copper salts, nitrate, chloride, and acetate are denoted by blue, green, and red, respectively. In panel (b), red, pink, and blue colors indicate different concentrations, 0.1, 1.0 and 10.0 mM, respectively.

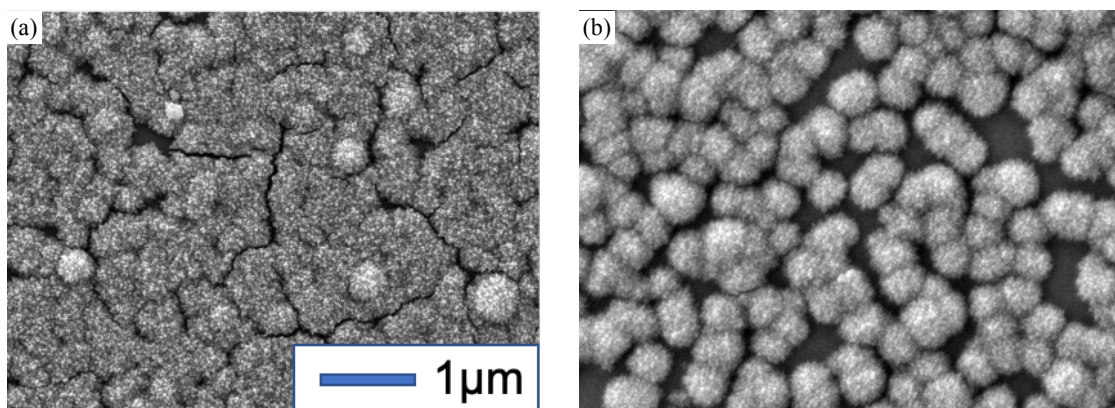


Figure S2 SEM images of TiO₂ coated on a glass substrate (a) with and (b) without hydrophilization treatment by UV illumination

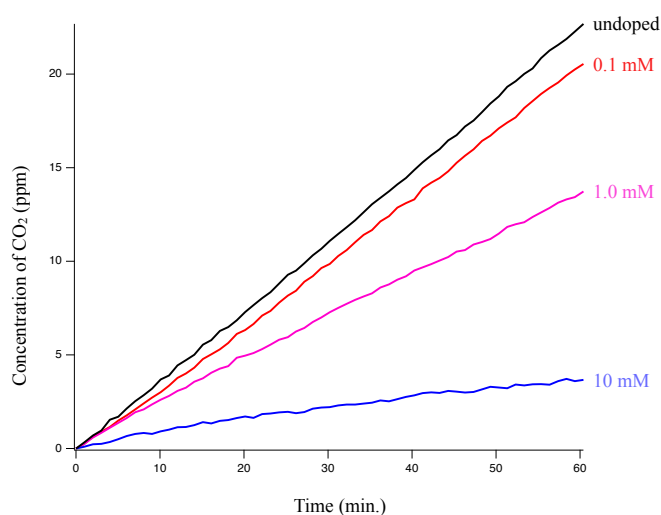


Figure S3 Production of CO₂ during the decomposition of acetaldehyde.

Table S1 Peak positions and FWHM values obtained by fitting XPS data

	Position (eV)	FWHM (eV)
Ti 2p _{1/2}	458.4	1.6
Ti 2p _{3/2}	464.1	2.1
Cu 2p: Cu ⁺	931.7	1.8
Cu 2p: Cu ²⁺	932.4	2.0