

Broadening the Action Spectrum of TiO₂-Based Photocatalysts to Visible Region by Substituting Platinum with Copper

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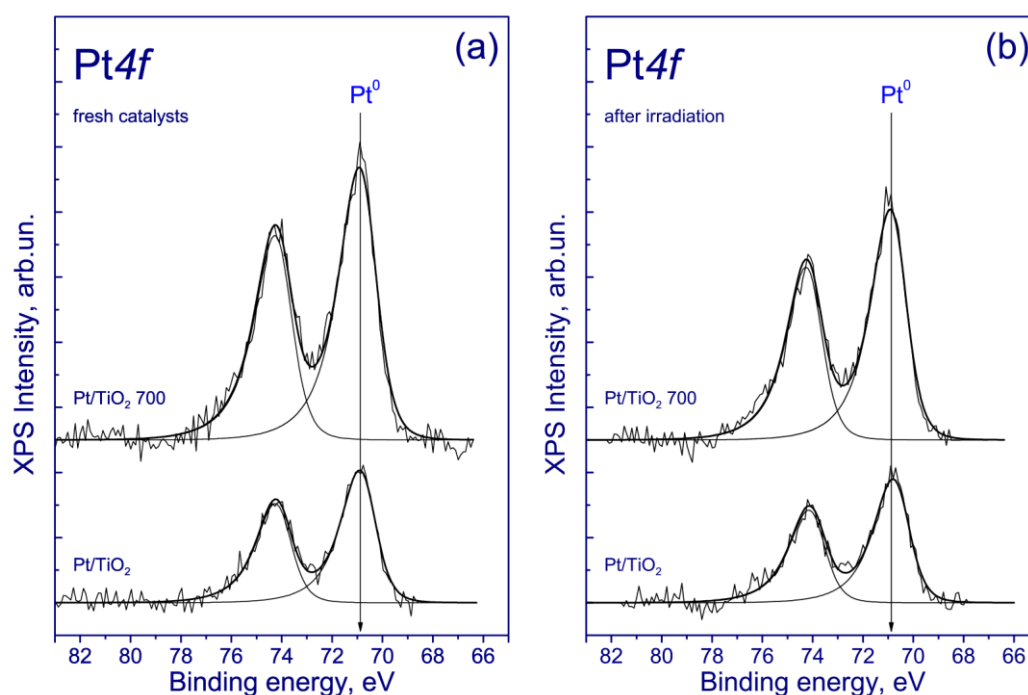


Figure S1. Pt_{4f} core-level spectra of the fresh (a) Pt-TiO₂ photocatalysts and after irradiation (b) under LED-400 nm. The spectra are normalized to the integral intensity of the corresponding Ti2p core-level spectra.

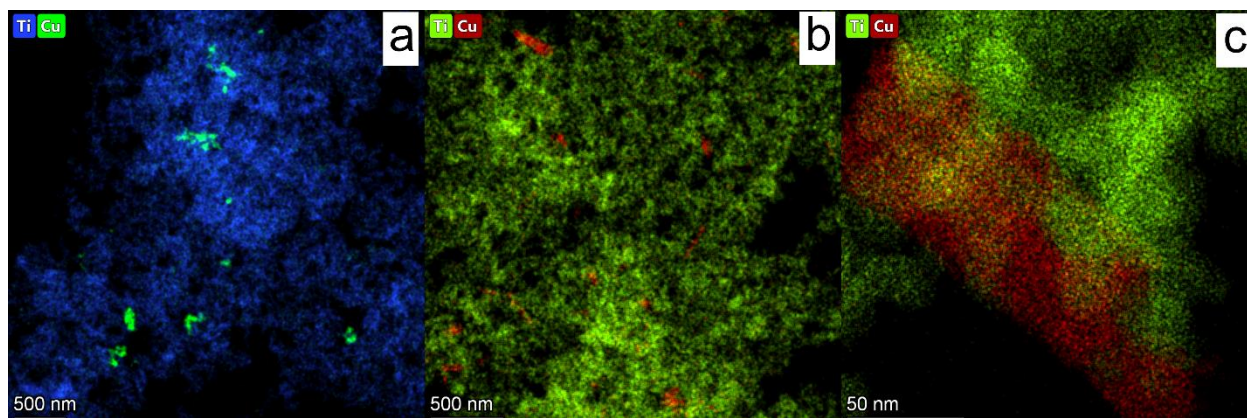


Figure S2. EDX mapping (in HAADF STEM mode) of the fresh Cu/TiO₂ (a) catalyst and after irradiation (b,c) for 24 h under LED-450 nm. It is clearly seen that the increase in the quantity of copper particle of 100–200 nm after irradiation.

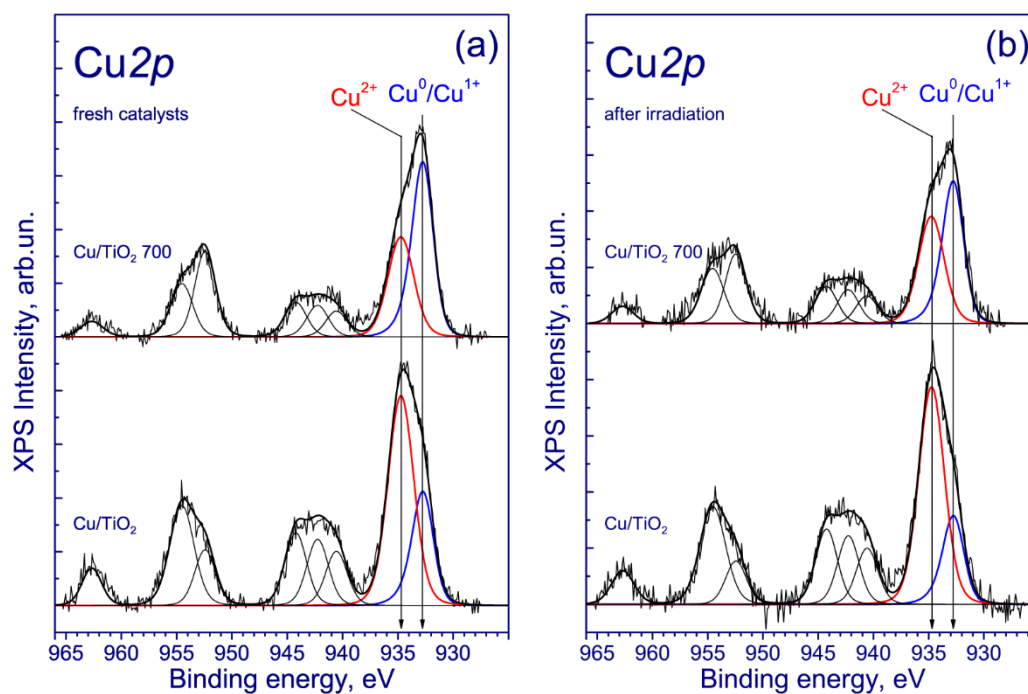


Figure S3. Cu₂p core-level spectra of the fresh (a) Cu-TiO₂ photocatalysts and after irradiation (b) under LED-400 nm. The spectra are normalized to the integral intensity of the corresponding Ti₂p core-level spectra.

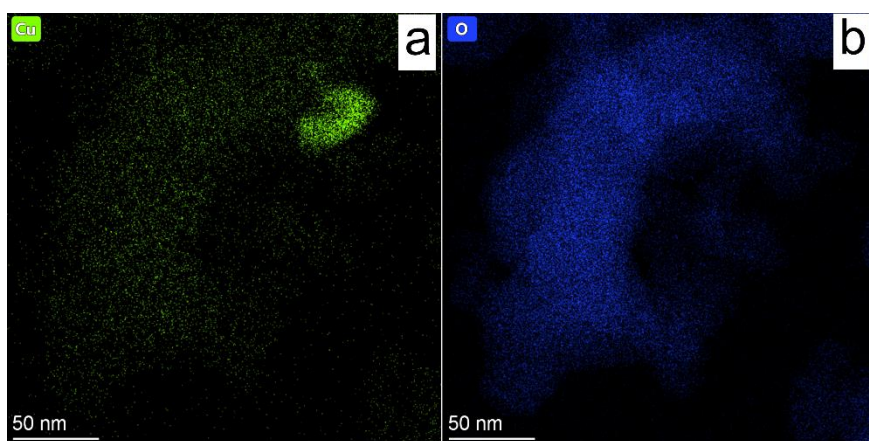


Figure S4. EDX mapping (in HAADF STEM mode) of the Cu/TiO₂ 700 catalyst after irradiation for 120 h under LED-400 nm (Cu (a), O (b)). It is clearly seen that the formation of Cu metallic particles takes place.