Supplementary Information (SI) for Organic & Biomolecular Chemistry. This journal is © The Royal Society of Chemistry 2024

Supporting information

Visible-light-enhanced synergistic catalysis of AuCu nanostructures immobilized within porous support

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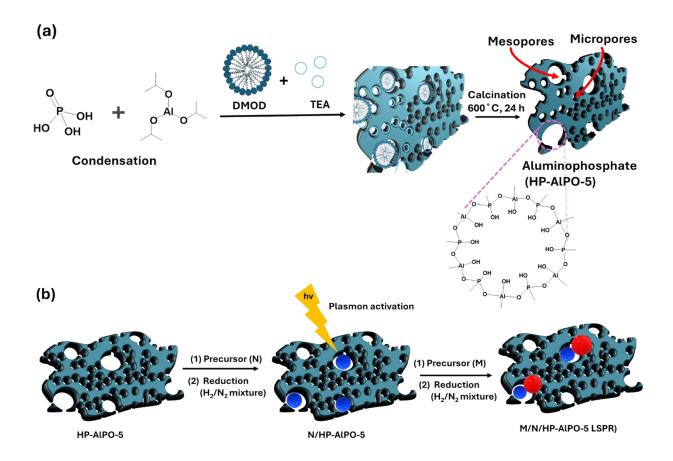


Figure S1. (a and b) Schematic representation of synthesis procedure of bimetallic (Au (red) and Cu (blue)) NPs incorporated HP-AlPO-5

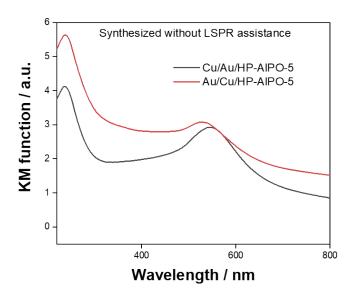


Figure S2. UV-vis spectra of bimetallic Cu/Au/HP-AlPO-5 and Au/Cu/HP-AlPO-5 synthesized without LSPR-assistance

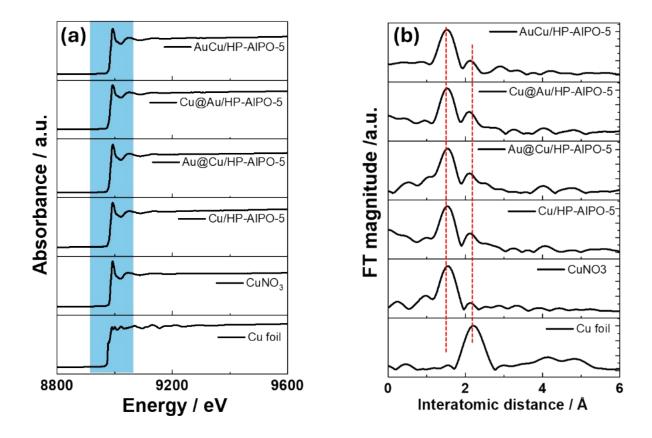


Figure S3 (a) XANES of Cu K-edge and (b) FT-EXAFS of Cu K-edge of the prepared catalysts.

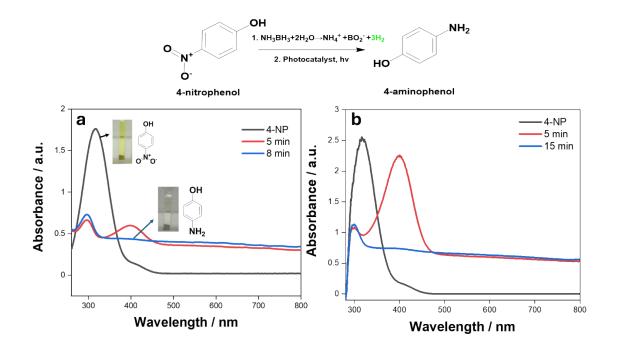


Figure S4 Catalytic activity of the most active Cu/Au/HP-APO-5 in the (a) presence of light and (b) absence of light.

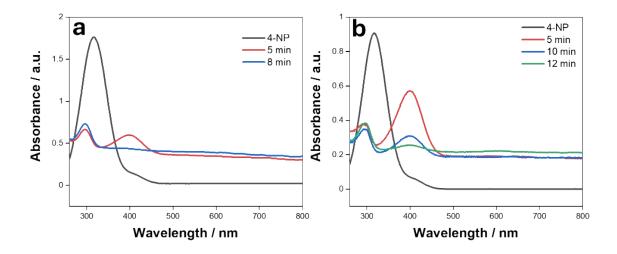


Figure S5 Reusability test of Cu/Au/HP-AlPO-5, (a) fresh sample and (b) 1st cycle.

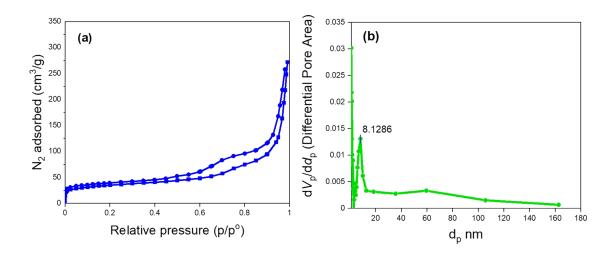


Figure S6 BET surface analysis of HP-AlPO-5 (a) nitrogen adsorption-desorption isotherm and (b) BJH plot of pore size distribution.

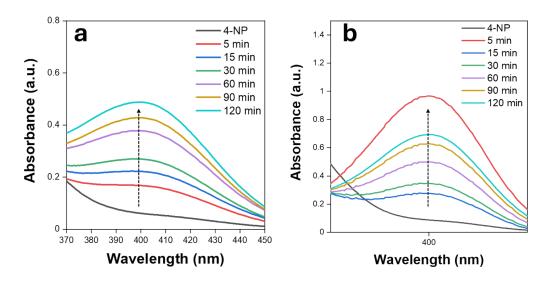


Figure S7 Reduction of 4-NP without using a catalyst in the (a) dark and (b) in the presence of light irradiation.