

Synergistic Effect in Au-Cu Bimetallic Catalysts for the valorization of lignin-derived compounds.

Marta Stucchi¹, Sofia Capelli¹, Simone Cardaci¹, Stefano Cattaneo¹, Andrea Jouve¹, Andrea Beck², György Sàfràn³, Claudio Evangelisti⁴, Alberto Villa¹ and Laura Prati^{1*}

Supporting Information

The high resolution spectra of Cu of both C- and Al₂O₃-supported samples are reported in figures S1 and S2.

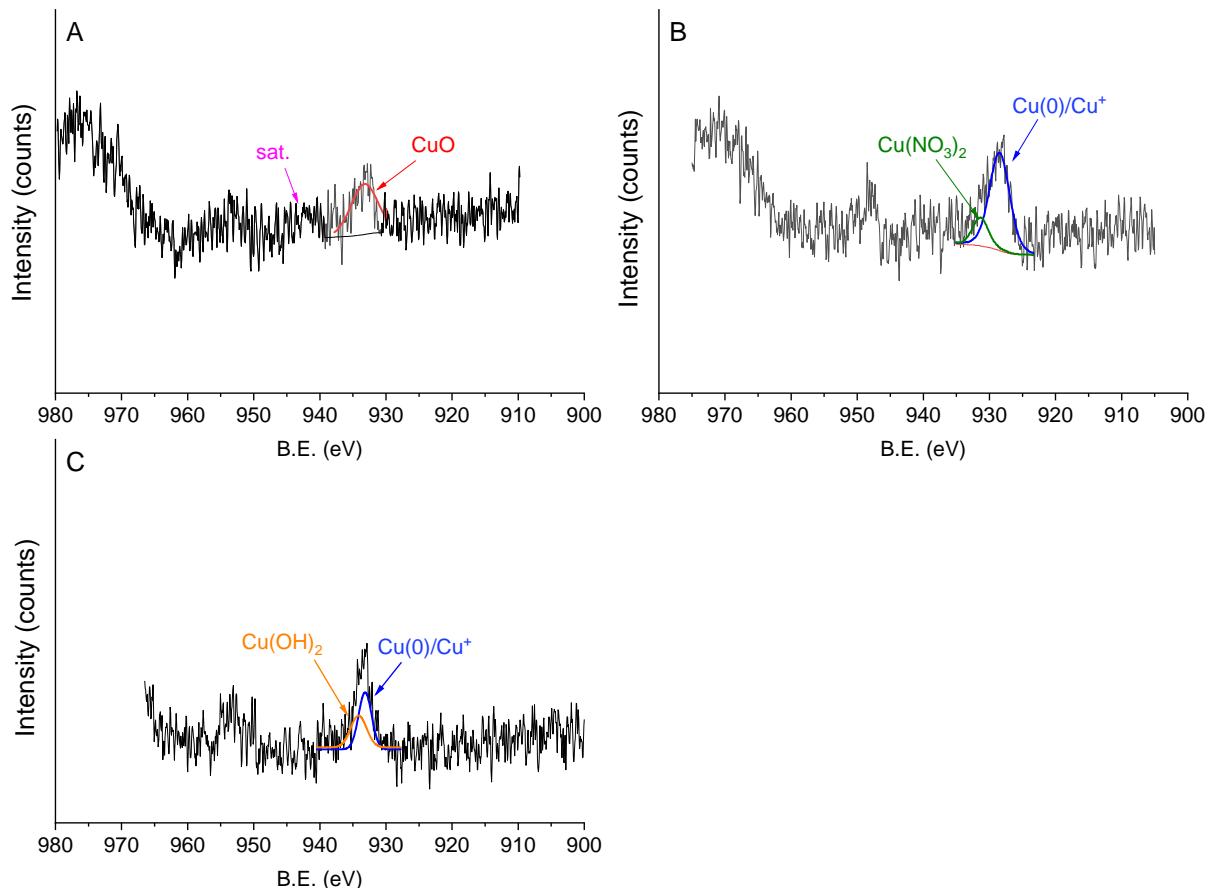


Figure S1. Cu 2p deconvolution for A) Au₄Cu₁ B) Au₁Cu₁ and C) Au₁Cu₄ C-supported catalysts

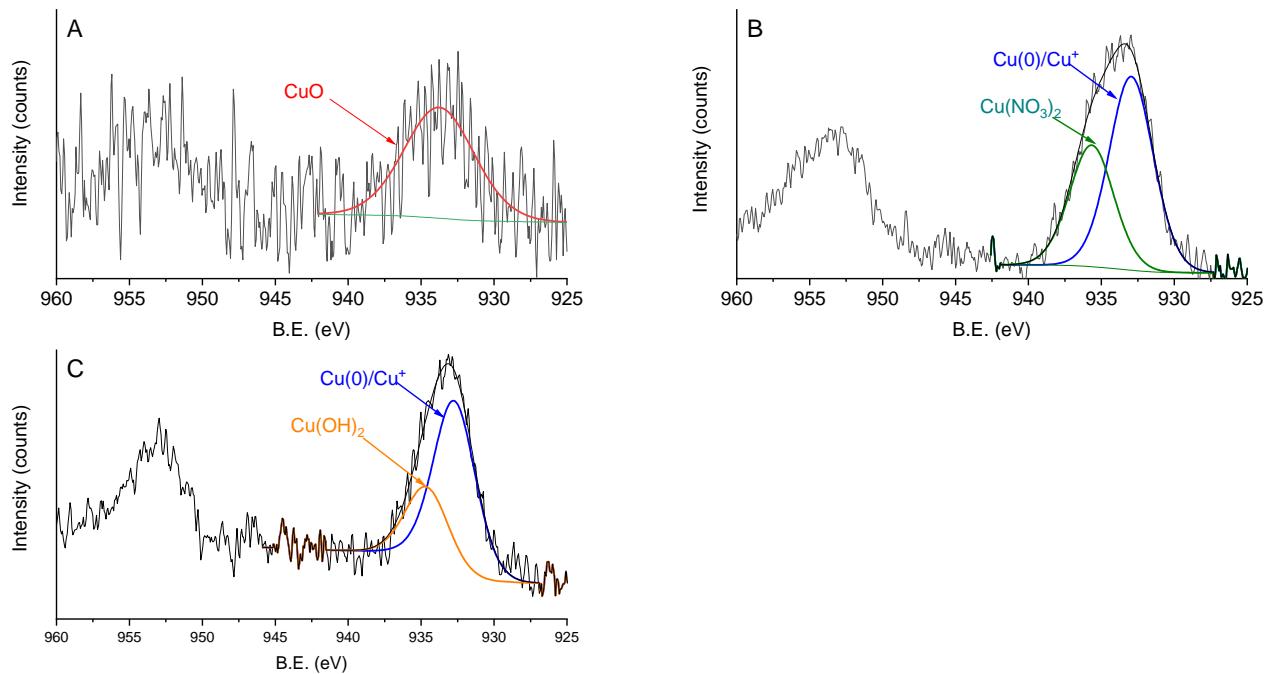


Figure S2. Cu 2p deconvolution for A) Au_4Cu_1 B) Au_1Cu_1 and C) $\text{Au}_1\text{Cu}_4 \text{Al}_2\text{O}_3$ -supported catalysts.

The high resolution spectra of Au of both C- and Al_2O_3 -supported samples are reported in figures S3 and S4. Spectra related to Au_1Cu_4 are not reported because the too low resolution of the Au signal does not allow for deconvolution.

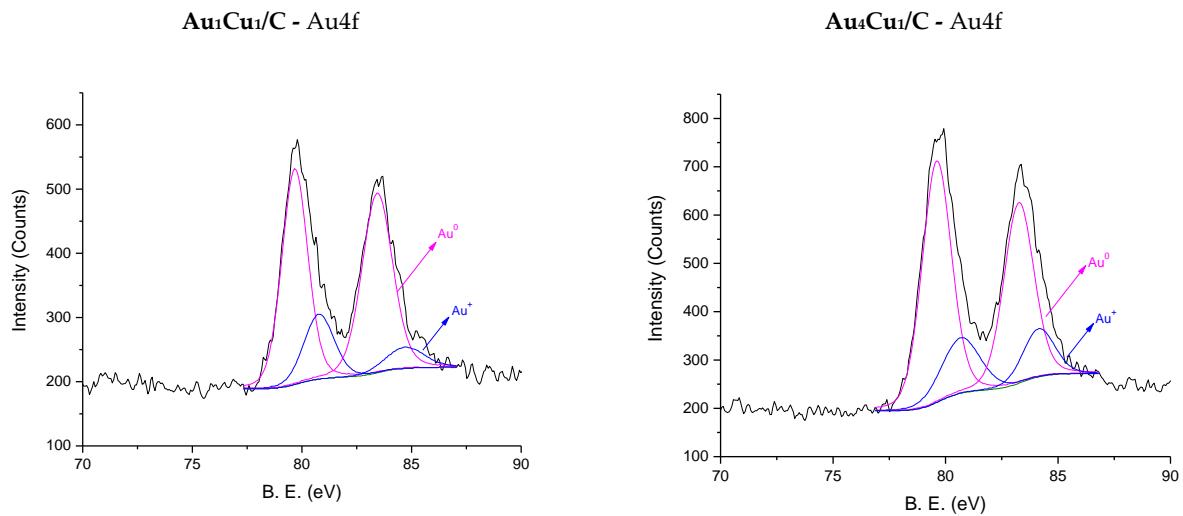
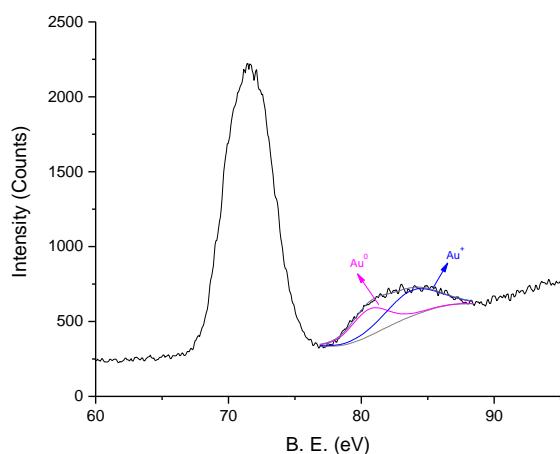


Figure S3. Au 4f deconvolution for A) Au_1Cu_1 B) Au_4Cu_1 C-supported catalysts.

Au₁Cu₁/Al₂O₃ - Au4f



Au₄Cu₁/Al₂O₃ - Au4f

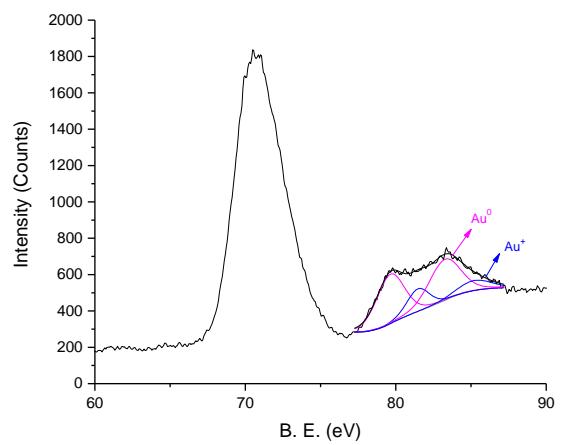


Figure S4. Au 4f deconvolution for A) Au₁Cu₁ B) Au₄Cu₁ Al₂O₃-supported catalysts.

The A) gold and B) copper surface exposure as a function of the conversion of VA after 1 h for Al₂O₃ supported catalysts is reported in figure S5.

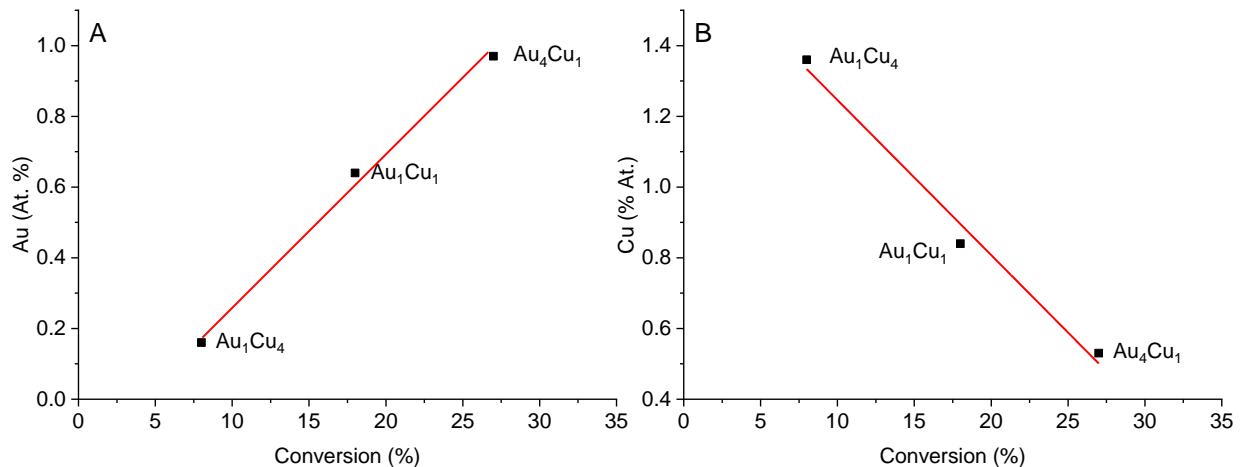


Figure S5. Influence of A) gold and B) copper surface exposure on the conversion of VA after 1 h for Al₂O₃ supported catalysts.

The influence of Au⁰_{exp} exposure on the conversion at 1 h of reaction is reported in figure S6.

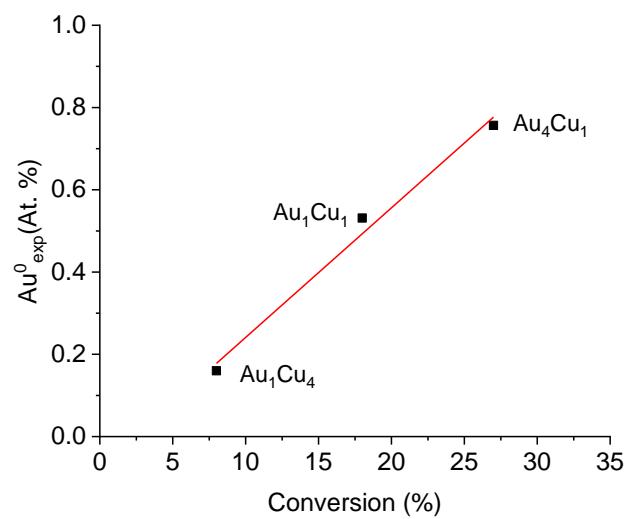


Figure S6. influence of Au^0_{exp} exposure on the conversion at 1 h of reaction.