

Electronic Supplementary Information (ESI) for

**Facile Synthesis of Bimetal Au-Ag Nanoparticles in Cu(I)
Boron Imidazolate Framework with Mechanochromic
Property**

Tian Wen, De-Xiang Zhang, Juan Liu, Hai-Xia Zhang, Jian Zhang*

*State Key Laboratory of Structural Chemistry, Fujian Institute of Research on the
Structure of Matter, the Chinese Academy of Sciences, Fuzhou, Fujian 350002, P. R.*

China. E-mail: zhj@fjirsm.ac.cn

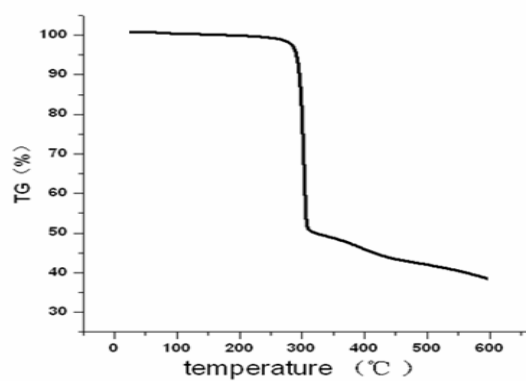


Figure S1. Thermogravimetric analysis of **BIF-38** sample.

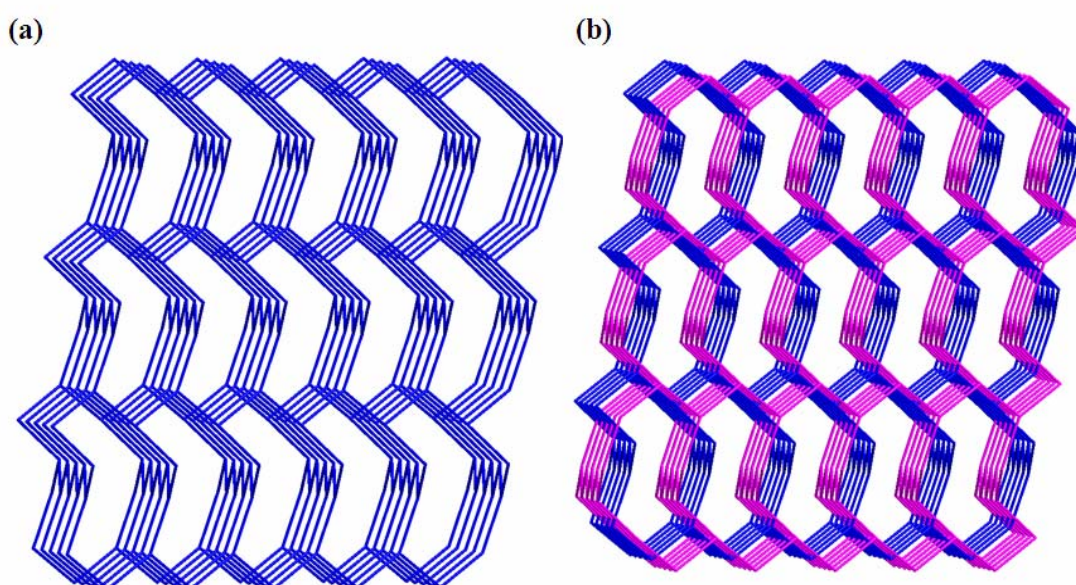


Figure S2. (a) Representations of the *ths* net in **BIF-38**; (b) view of the two-fold interpenetrated *ths* net of **BIF-38**.

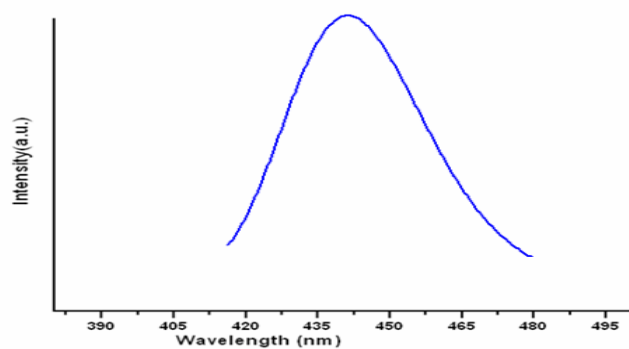


Figure S3. The solid-state emission spectra ($\lambda_{\text{ex}} = 335 \text{ nm}$) for $\text{KBH}(\text{im})_3$.

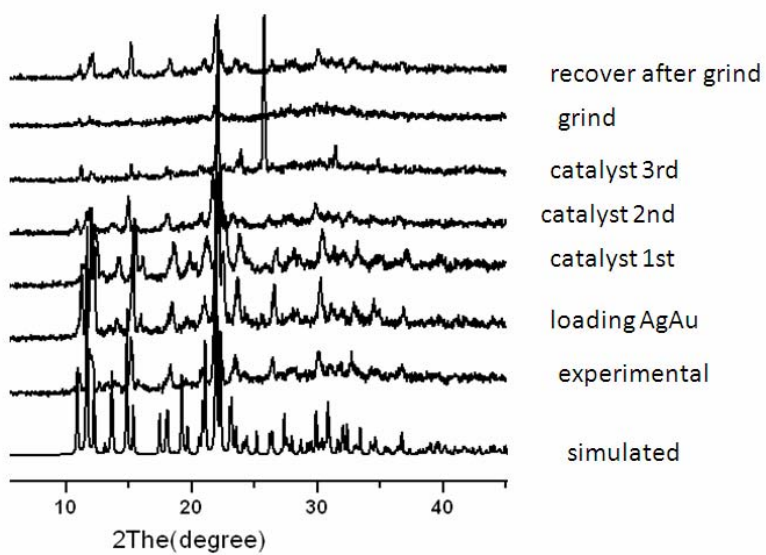


Figure S4. The PXRD patterns of **BIF-38** under different conditions.

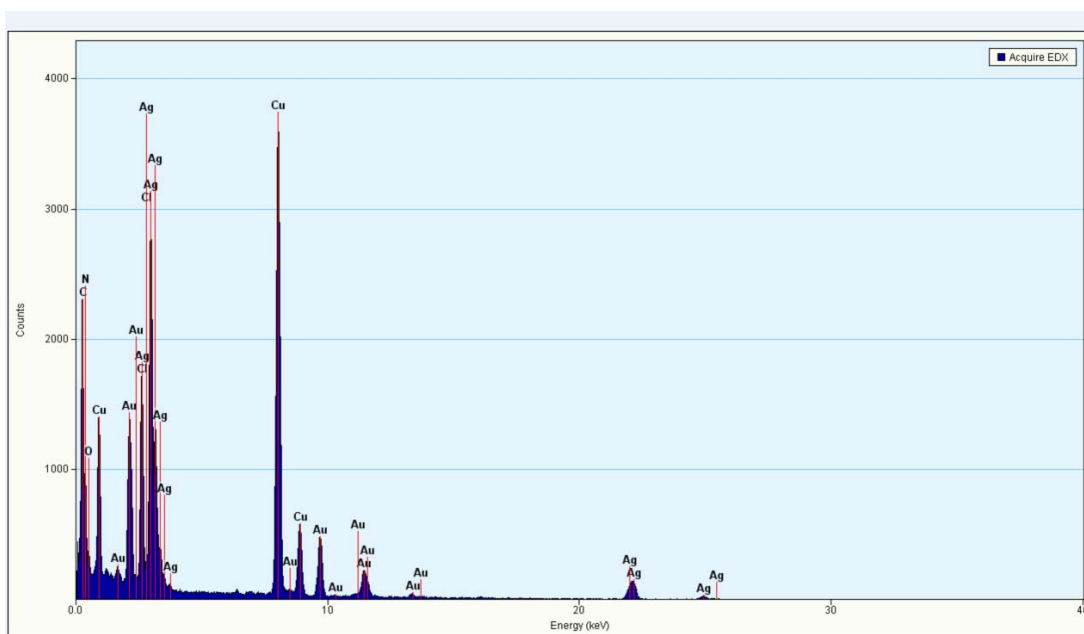


Fig. S5 EDX of AuAg@BIF-38 .

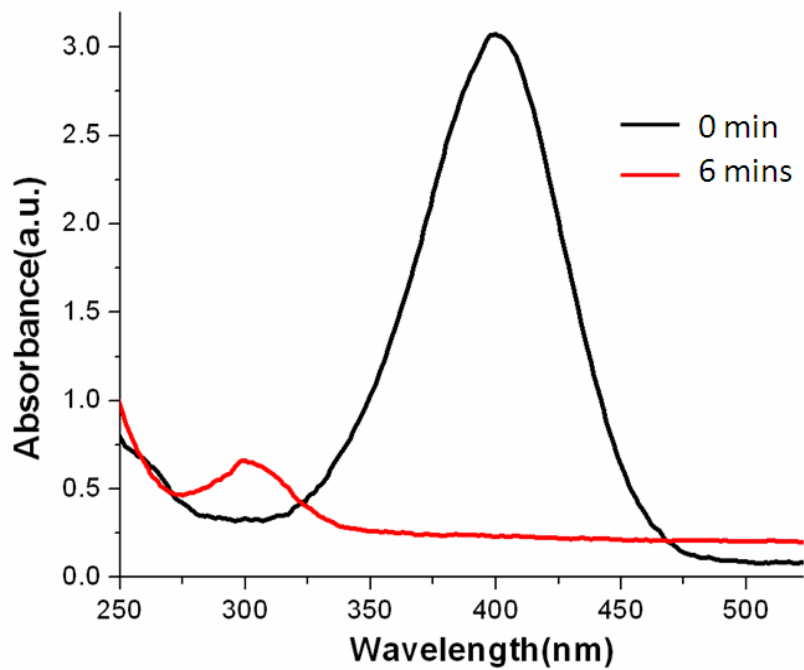


Figure S6. UV-vis spectra showing reduction of 4-NP over **AuAg@BIF-38**.

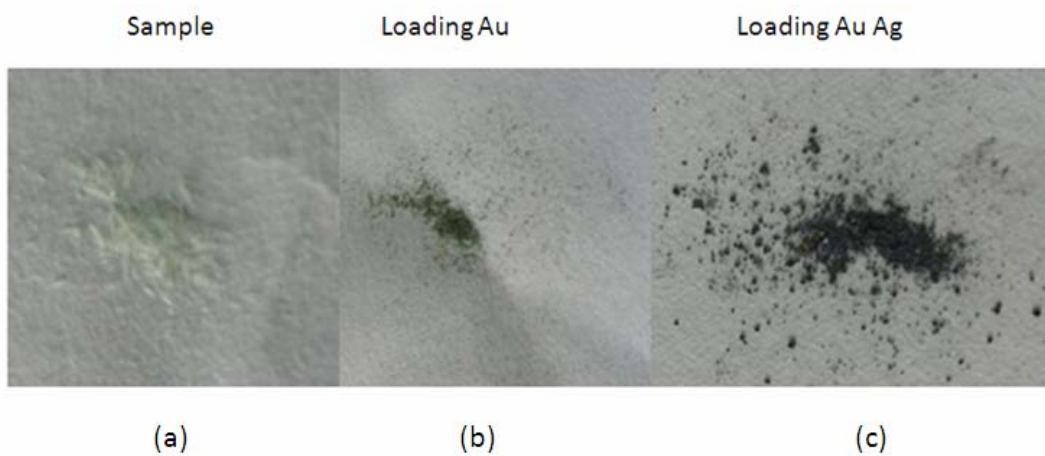


Figure S7. (a) optical image of **BIF-38**; (b) optical image of **Au@BIF-38**; (c) optical images for **AuAg@BIF-38** crystals.

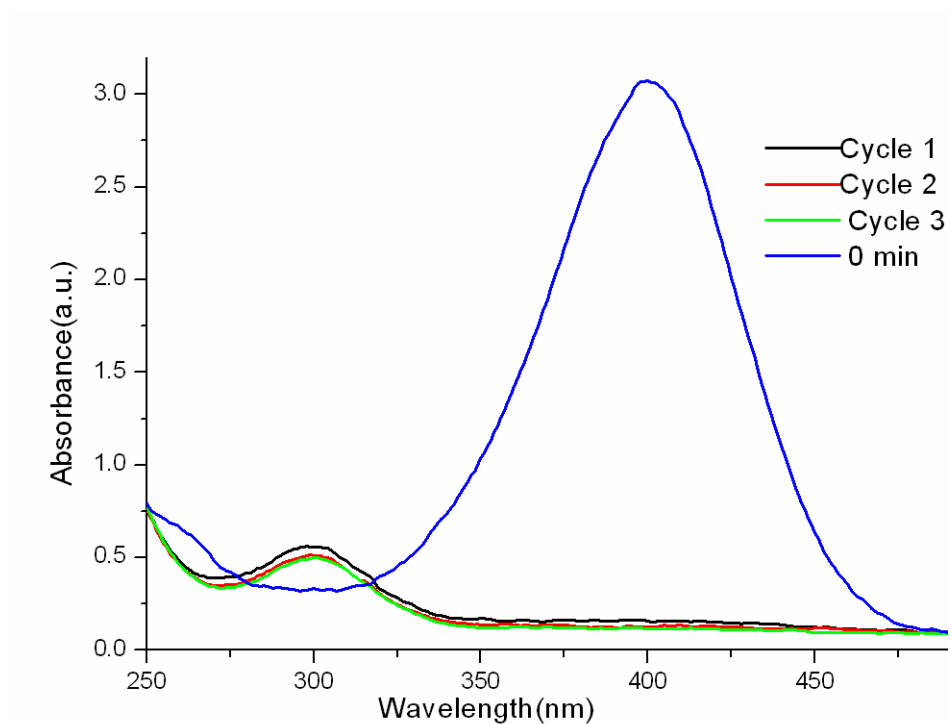


Figure S8. Recycling test on reduction of 4-NP over **AuAg@BIF-38**.

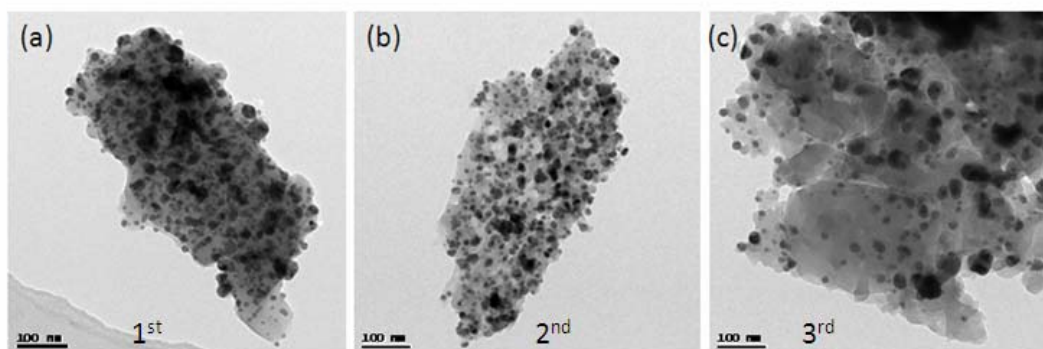


Figure S9. TEM images of **AuAg@BIF-38** after three times catalytic reaction.