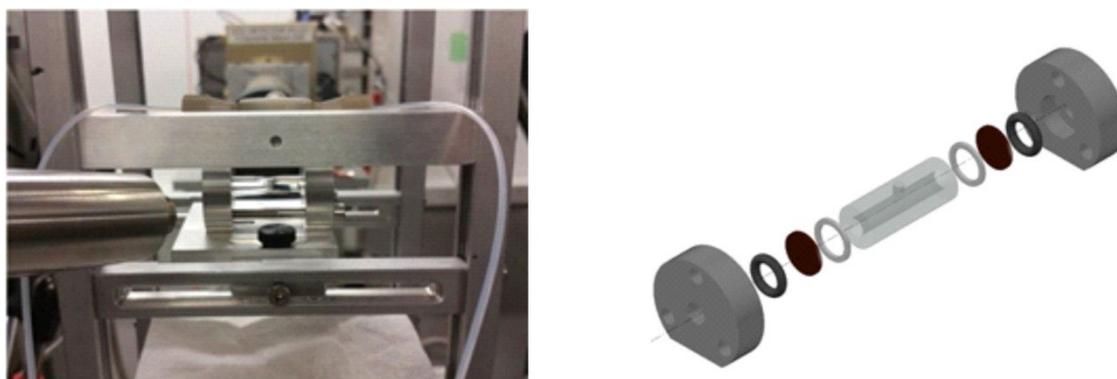


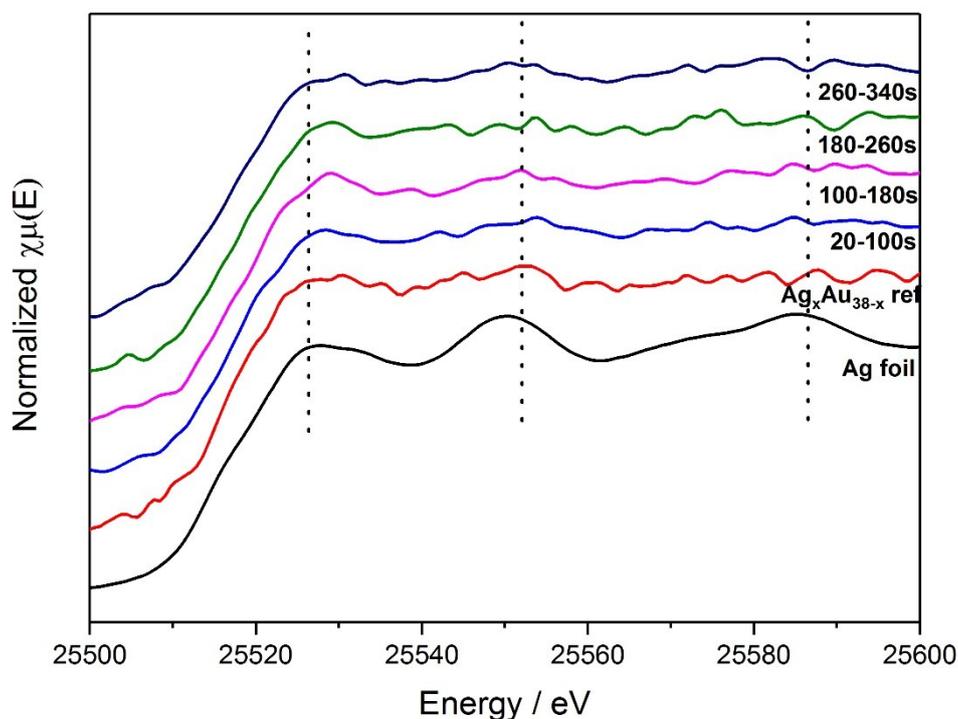
## Supporting Information

### On the mechanism of rapid metal exchange between thiolate-protected gold and gold/silver clusters: A time-resolved *in situ* XAFS study

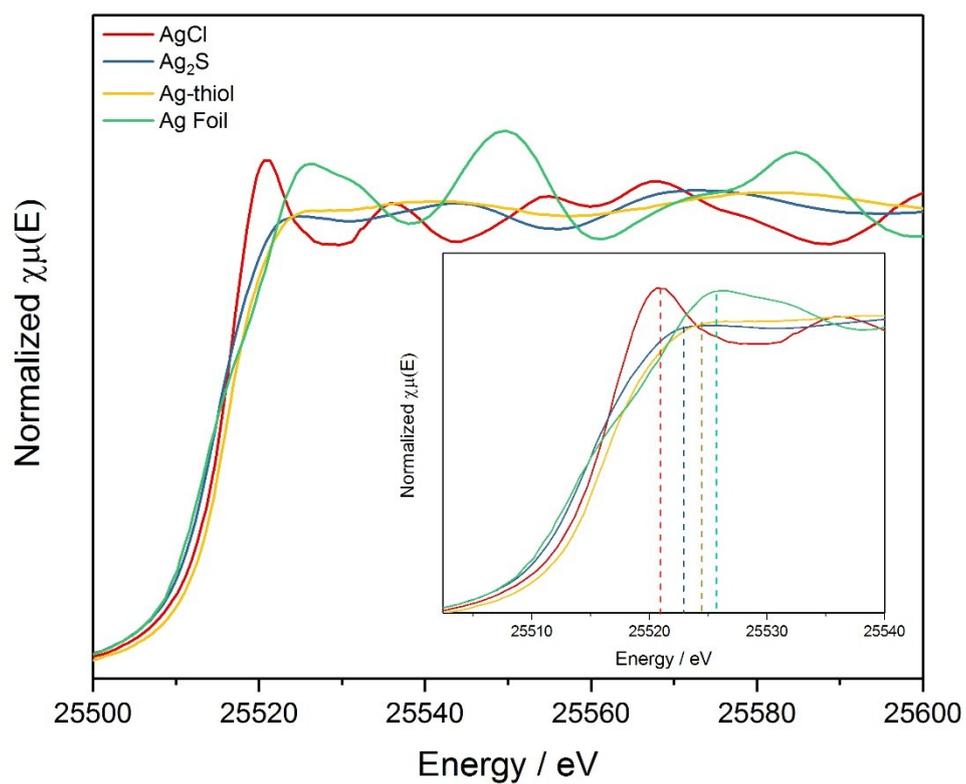
Bei Zhang,<sup>a\*</sup> Olga Safonova,<sup>b</sup> Stephan Pollitt,<sup>c</sup> Giovanni Salassa,<sup>a</sup> Annelies Sels,<sup>a</sup> Rania Kazan,<sup>a</sup> Yuming Wang,<sup>a</sup> Günther Rupprechter,<sup>c</sup> Noelia Barrabés,<sup>c\*</sup> Thomas Bürgi<sup>a</sup>



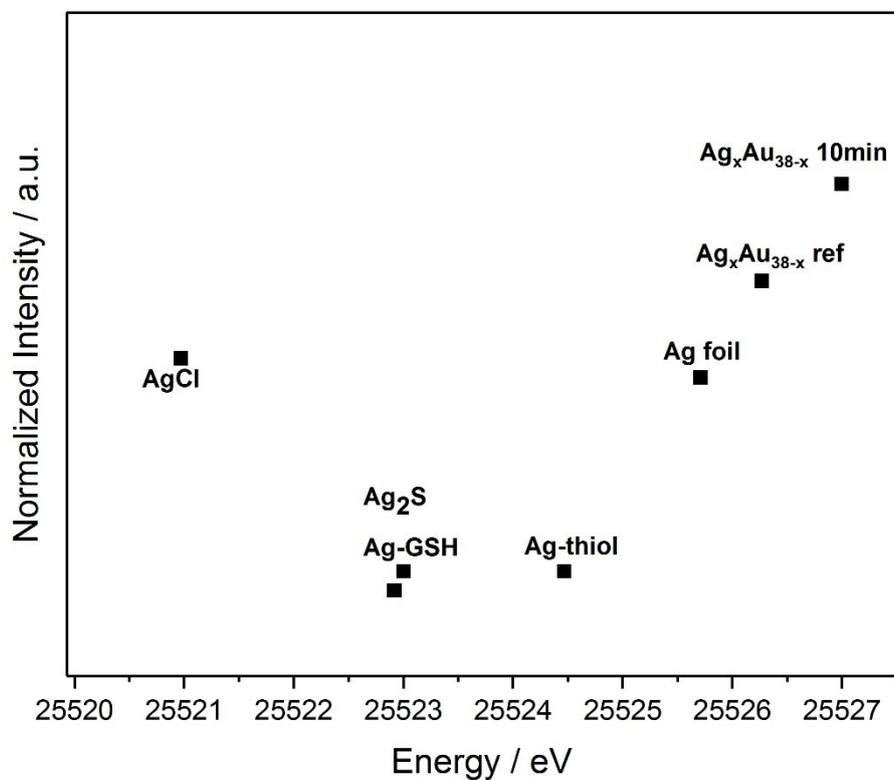
**Figure S1.** Photos and schematic illustration of the cell for the *in situ* studies.



**Figure S2.** XANES spectra of the silver migration reaction at Ag K-edge at longer reaction times



**Figure S3.** XANES spectra of silver references at Ag K-edge from ref <sup>1</sup>



**Figure S4.** White line Energy from XANES spectra of silver references and sample after 10 min reaction at Ag K-edge. <sup>1,2</sup>

1. C. L. Doolette, M. J. McLaughlin, J. K. Kirby, D. J. Batstone, H. H. Harris, H. Ge and G. Cornelis, *Chemistry Central Journal*, 2013, **7**, 46-46.
2. G. Veronesi, A. Deniaud, T. Gallon, P. H. Jouneau, J. Villanova, P. Delangle, M. Carriere, I. Kieffer, P. Charbonnier, E. Mintz and I. Michaud-Soret, *Nanoscale*, 2016, **8**, 17012-17021.