

**【Electronic Supplementary Information】**

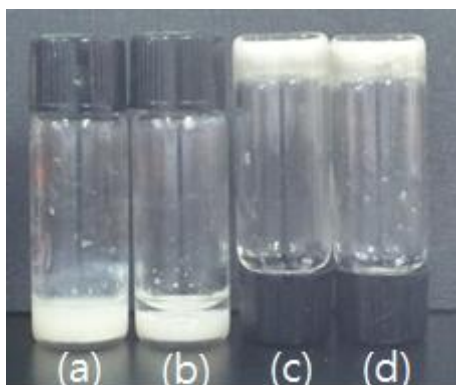
A tetrazole-based metallogel induced with Ag<sup>+</sup> ion and  
its silver nanoparticle as catalysis

*Ji Ha Lee,<sup>†</sup> Sunwoo Kang,<sup>‡</sup> Jin Yong Lee<sup>\*,‡</sup> and Jong Hwa Jung<sup>\*,†</sup>*

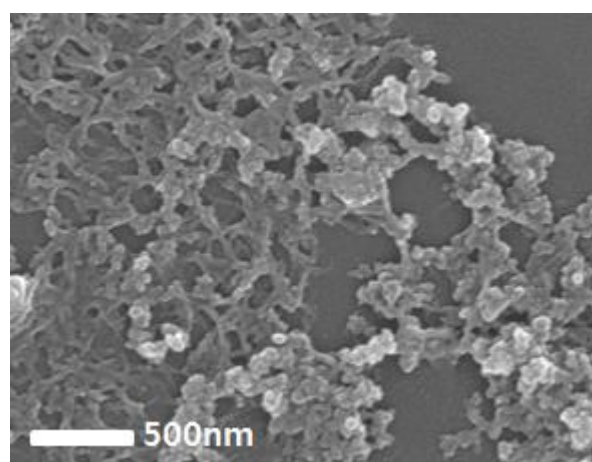
<sup>†</sup>Department of Chemistry and Research Institute of Natural Sciences Gyeongsang National  
University, Jinju 660-701, Korea

<sup>‡</sup>Department of Chemistry and Institute of Basic Science Sungkyunkwan University, Suwon  
440-746, Korea

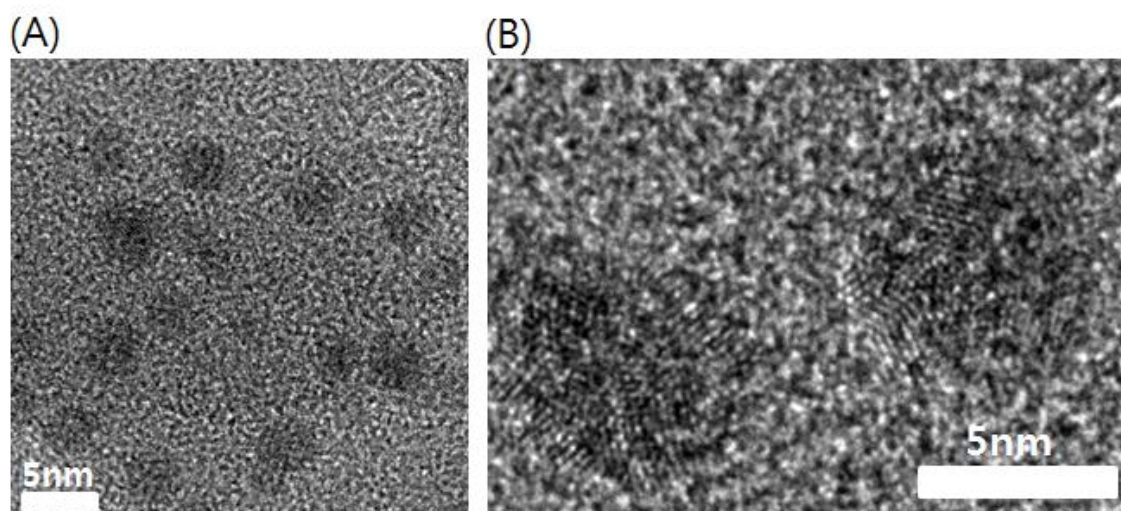
E-mail: jinylee@skku.edu; jonghwa@gnu.ac.kr



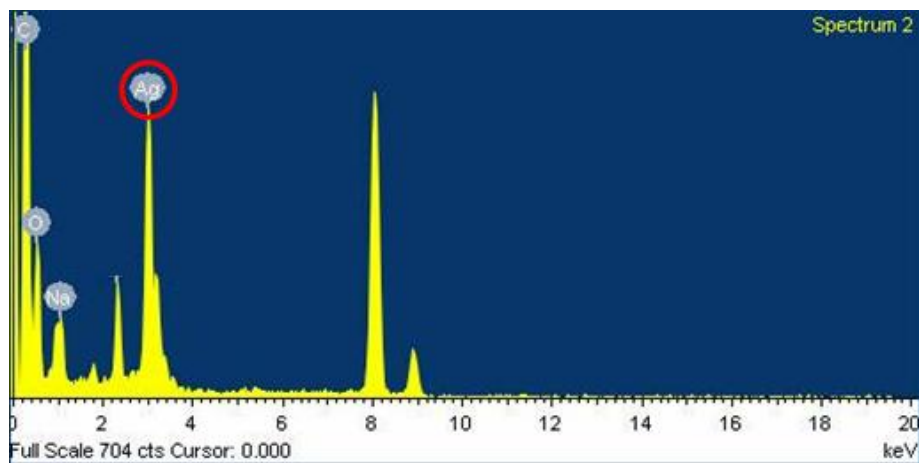
**Fig. S1** Photograph of ligand **1** (1.0 wt) with (a)  $\text{AgSO}_4$  (2.0 equivalent), (b)  $\text{AgOAc}$  (2.0 equivalent), (c)  $\text{AgClO}_4$  (2.0 equivalent) and (d)  $\text{AgNO}_3$  (2.0 equivalent) at pH=10 in water.



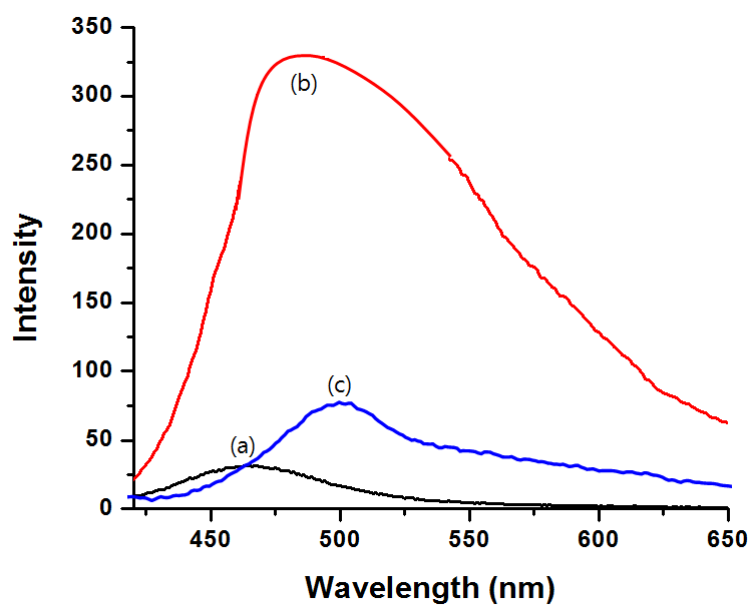
**Fig. S2** SEM image of gel **1** (1.0 wt%) with AgNO<sub>3</sub> (2.0 equiv) in water.



**Fig. S3** (A) High resolution and (B) enlarged TEM images of Ag nanoparticles onto the gel **1**.



**Fig. S4** EDX spectrum of gel **1** with  $\text{AgClO}_4$  (2.0 equivalent).



**Fig. S5** Fluorescence spectra of (a) free ligand **1** and gel **1** with  $\text{AgClO}_4$  (b) at initial stage and (c) after 1 day.

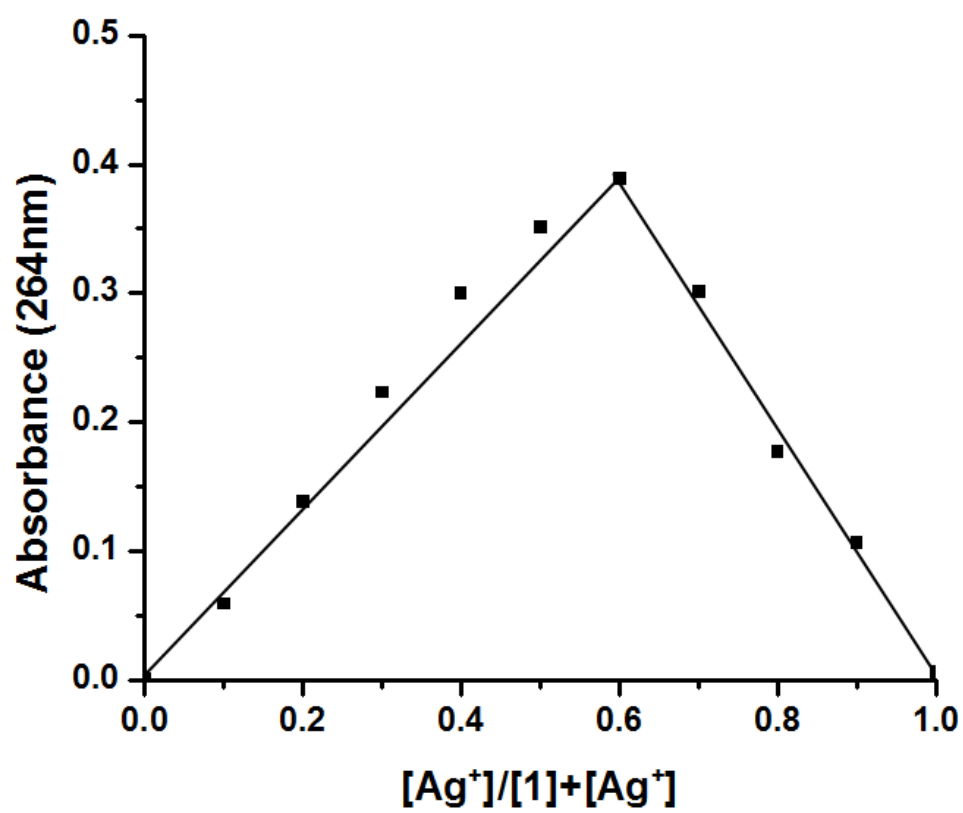
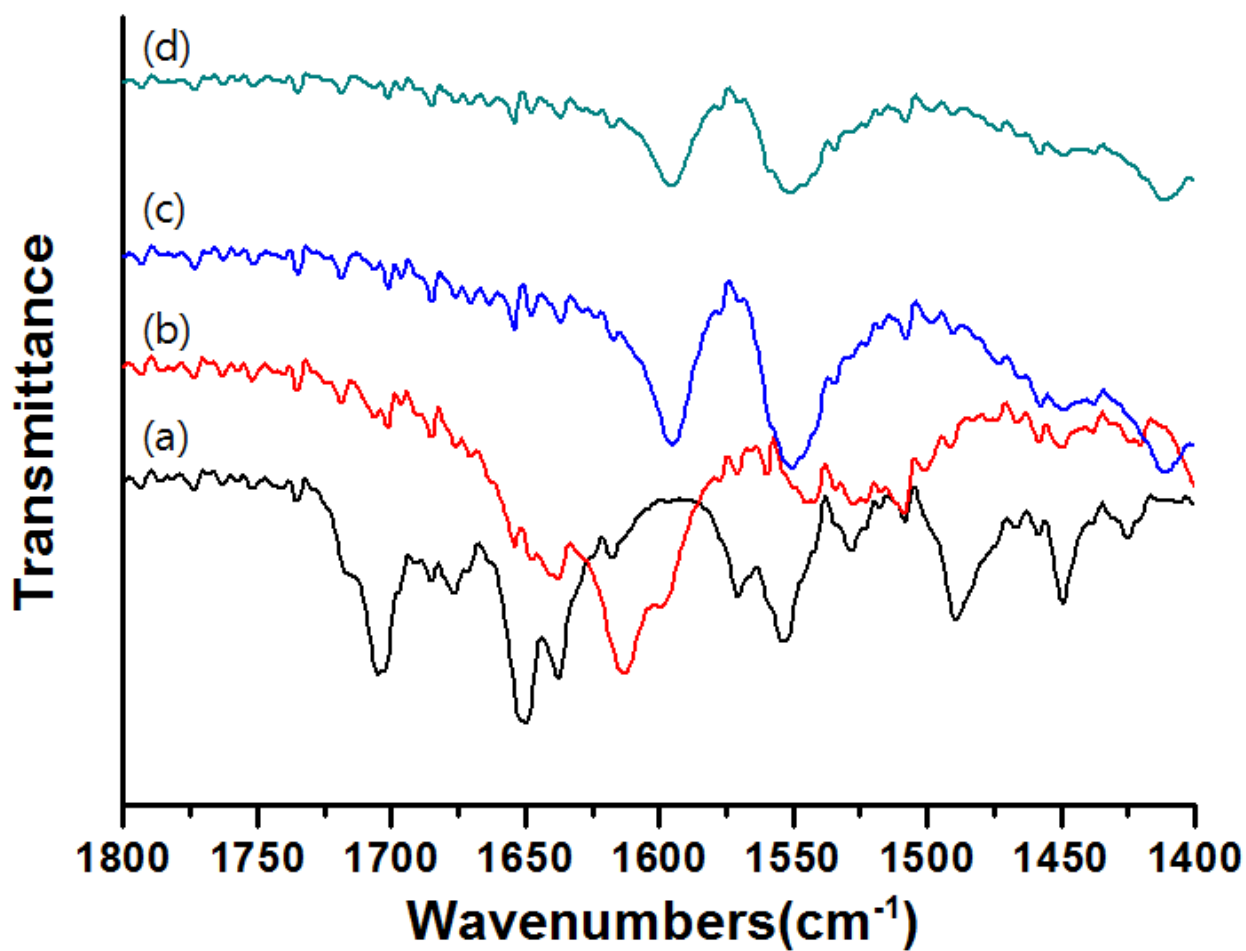
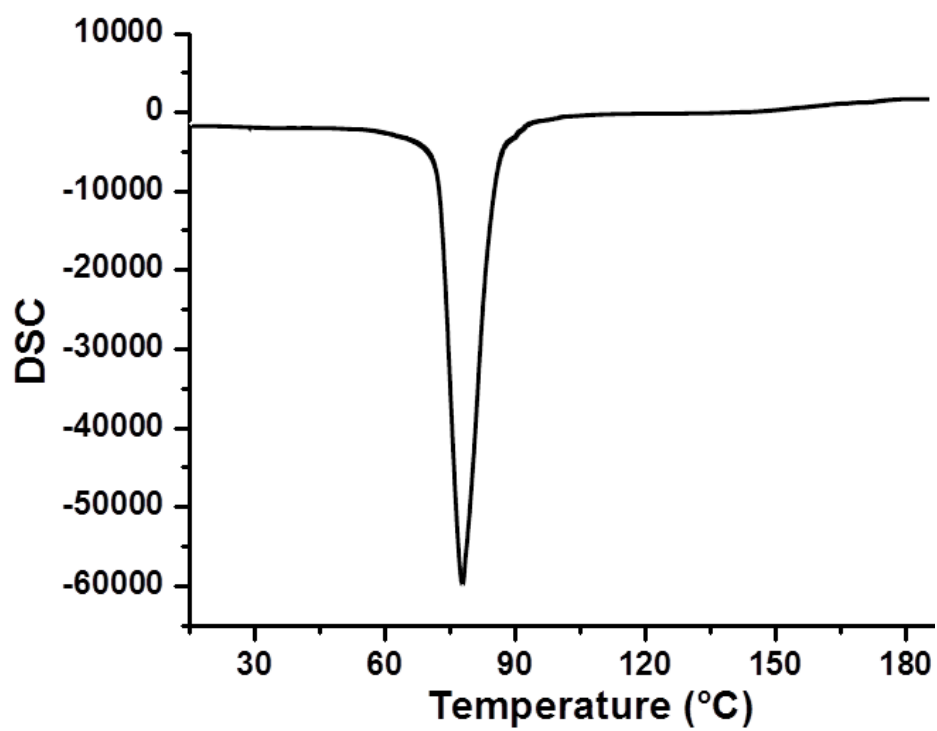


Fig. S6 Job's plot of 1 by addition of Ag<sup>+</sup> in H<sub>2</sub>O.

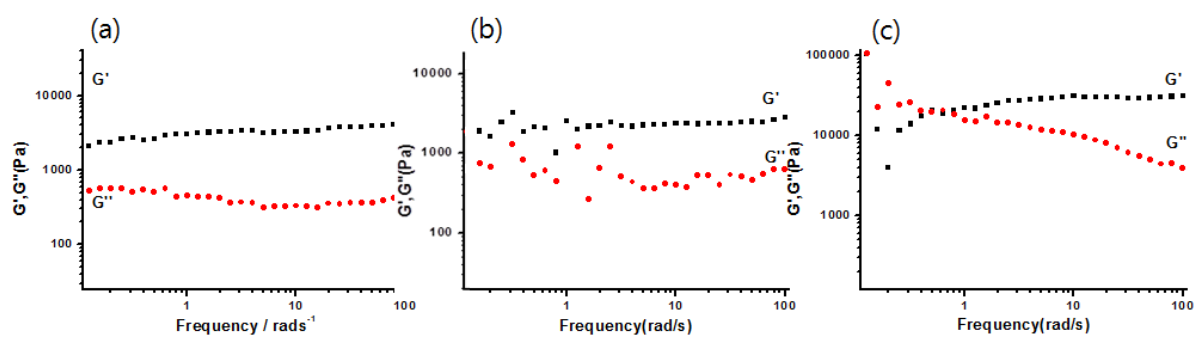


**Fig. S7** FT-IR spectra of (a) free ligand **1**, and gel **1** with (b) 2.0, (c) 3.0 and (d) 4.0 equivalents of AgClO<sub>4</sub>.

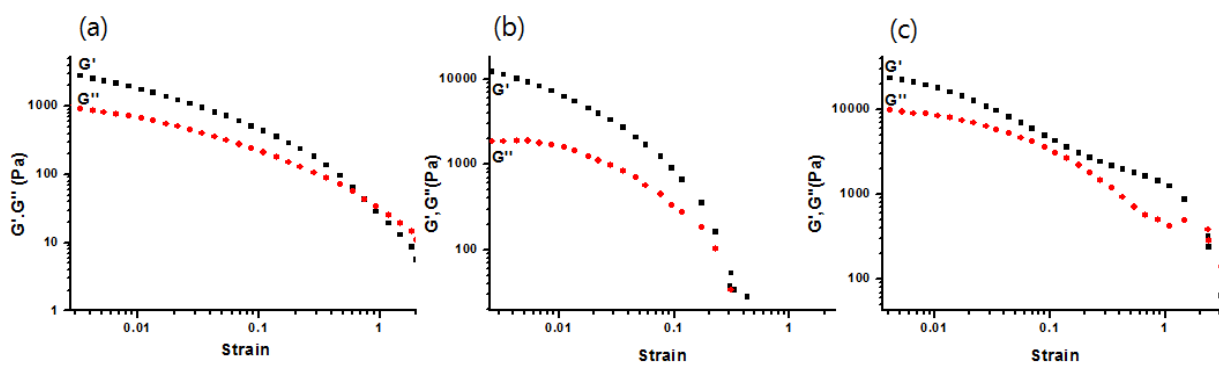




**Fig. S8** DSC data of gel 1 with AgClO<sub>4</sub> (2.0 equiv).



**Fig. S9** Frequency sweep of  $G'$  and  $G''$  for gel 1 with  $\text{AgClO}_4$  (a) 2 equiv, (b) 3 equiv and (c) 5.0 equiv at a strain of 0.1 %.



**Fig. S10** Strain sweep  $G'$  and  $G''$  at a frequency of  $1 \text{ rads}^{-1}$  for gel **1** with  $\text{AgClO}_4$  (a) 2.0 equiv, (b) 3.0 equiv, and (c) 5.0equiv at a strain of 0.01.