

## Supplementary Information

### Anion-Controlled Conformational Variation: Structural Modulation and Anion Exchange of Ag(I) Coordination Networks

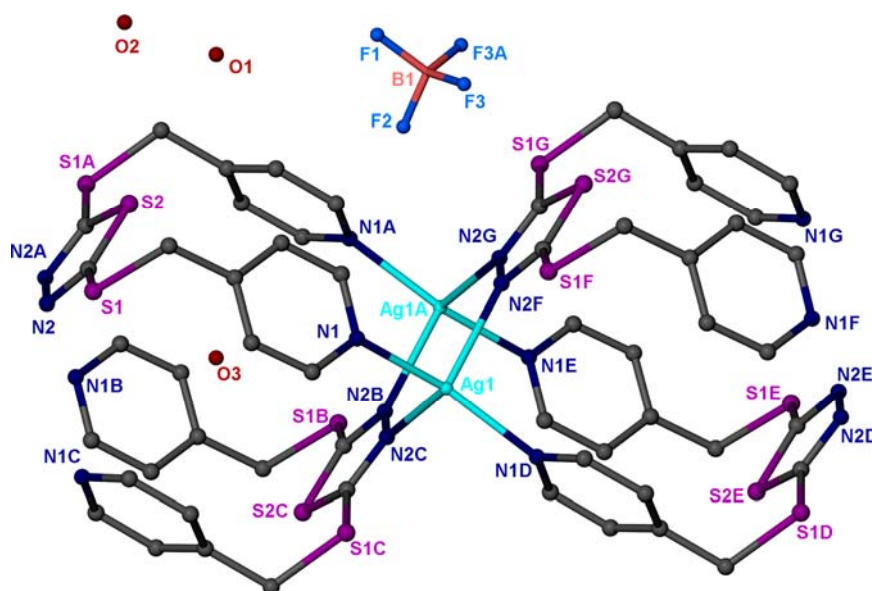
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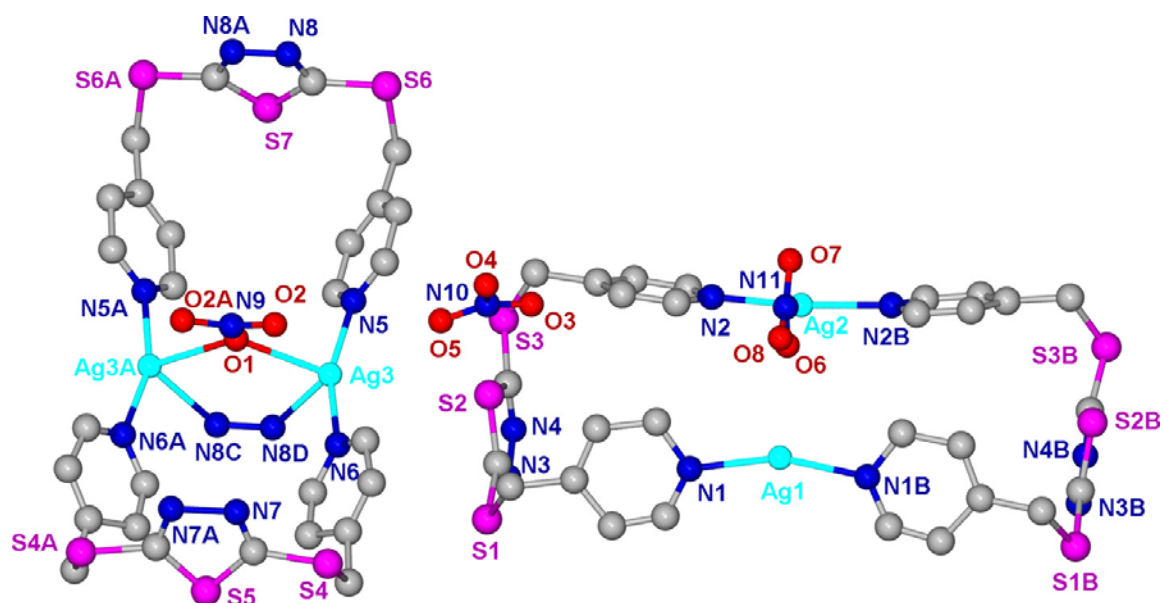
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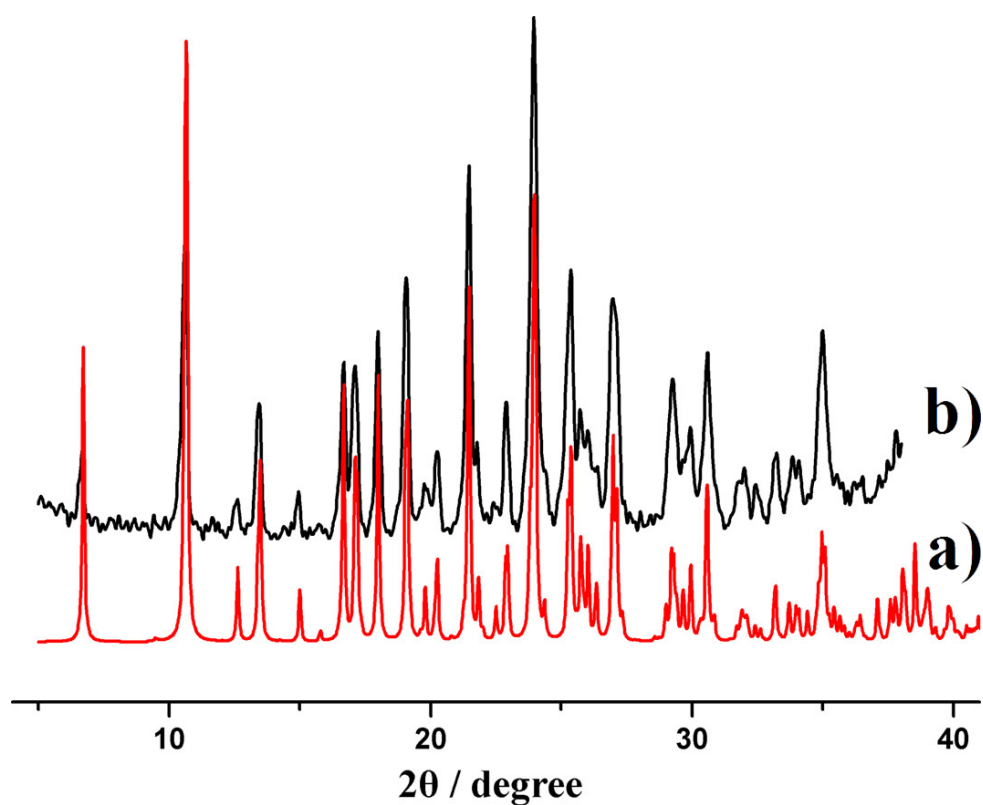
E-mail: hmc@fjirsm.ac.cn.



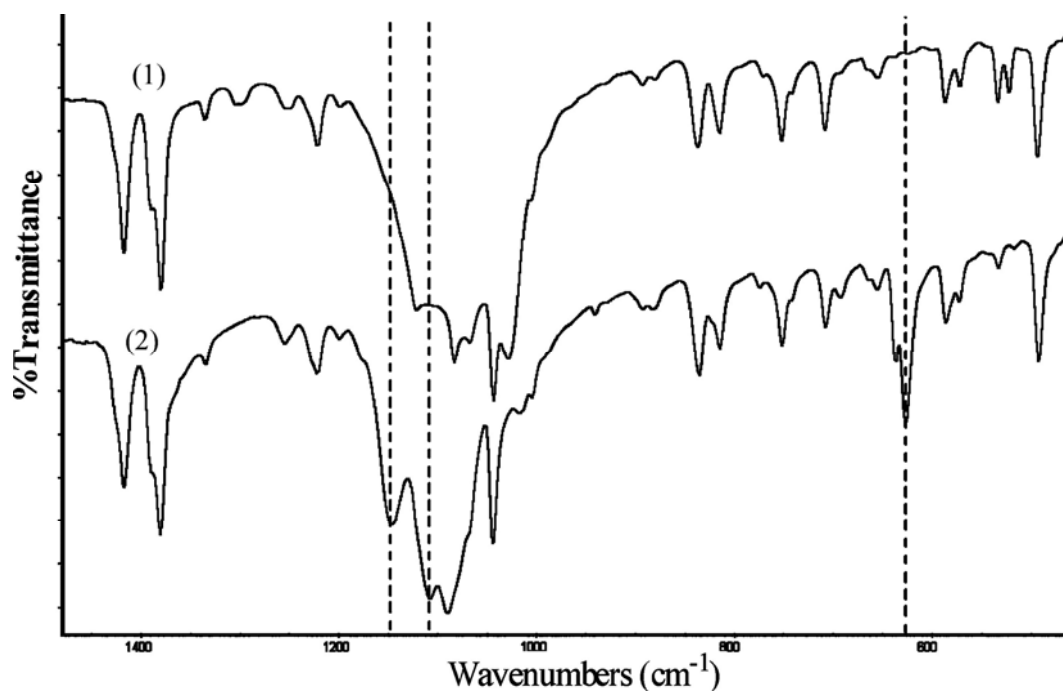
**Fig. S1.** The asymmetric unit and the silver (I) coordination environment in **1a**. Symmetry Code: A  $x, 1-y, z$ ; B  $-x, 1-y, -z$ ; C  $-x, y, -z$ ; D  $-x, -y, -z-1$ ; E  $-x, 1-y, -z-1$ ; F  $x, y, z-1$ ; G  $x, 1-y, z-1$ .



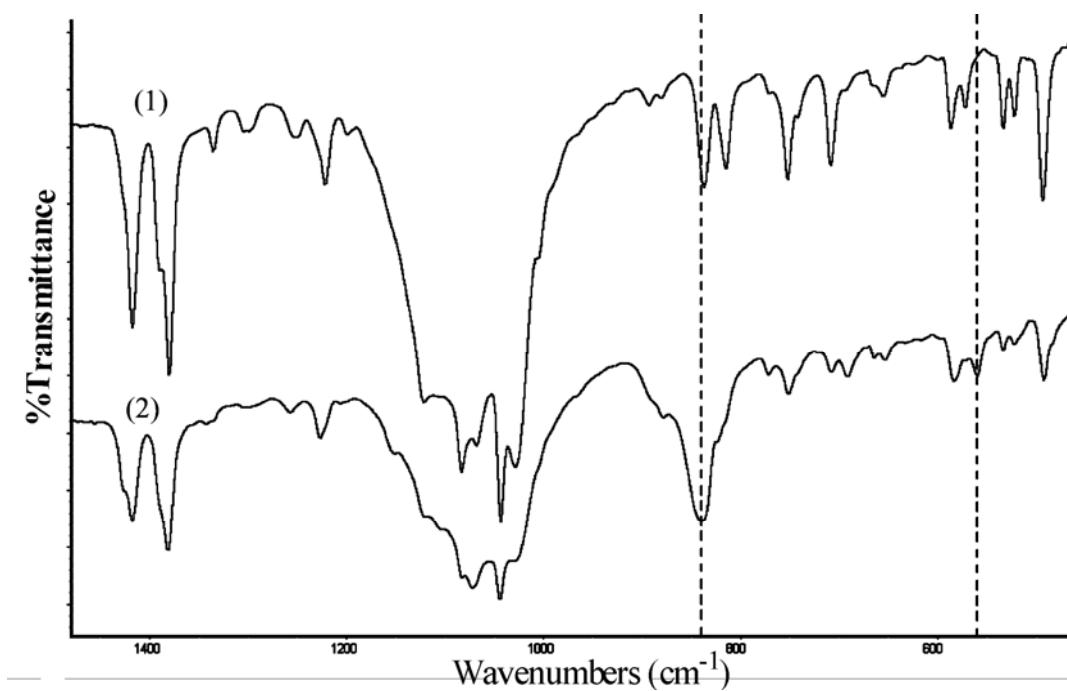
**Fig. S2.** The asymmetric unit and the silver (I) coordination environment in **2**. Symmetry Code: A 1-x, y, z; B 2-x, y, z; C 1-x, 1-y, 1/2+z; D x, 1-y, 1/2+z.



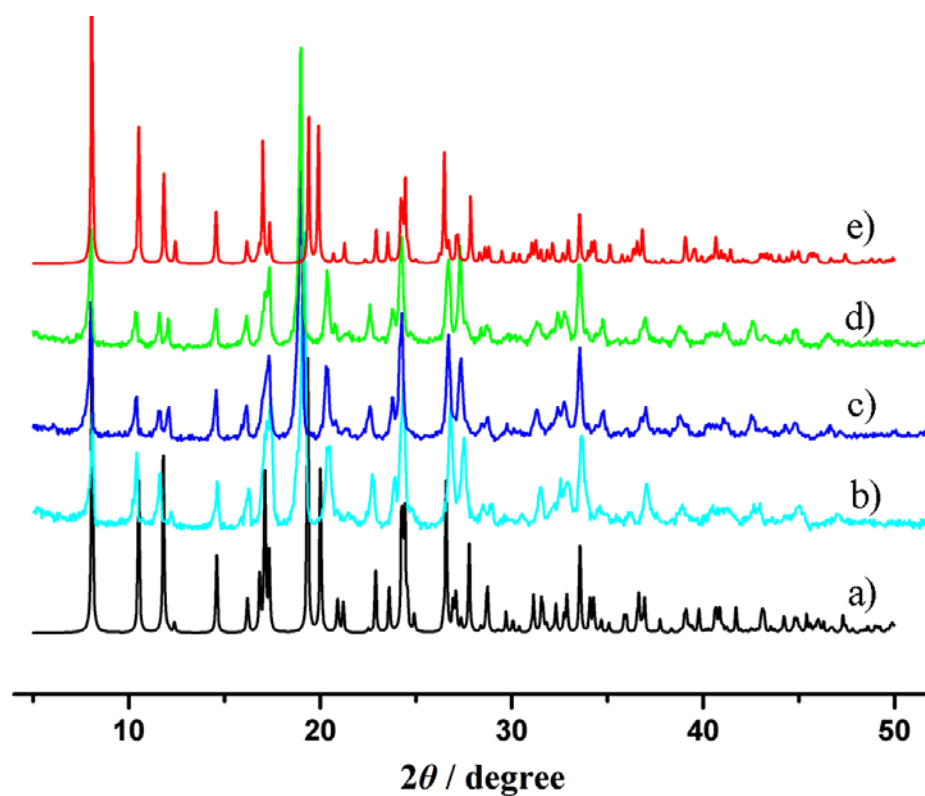
**Fig. S3.** X-ray powder diffraction patterns of **2**: a) **2** simulated, b) **2** measured.



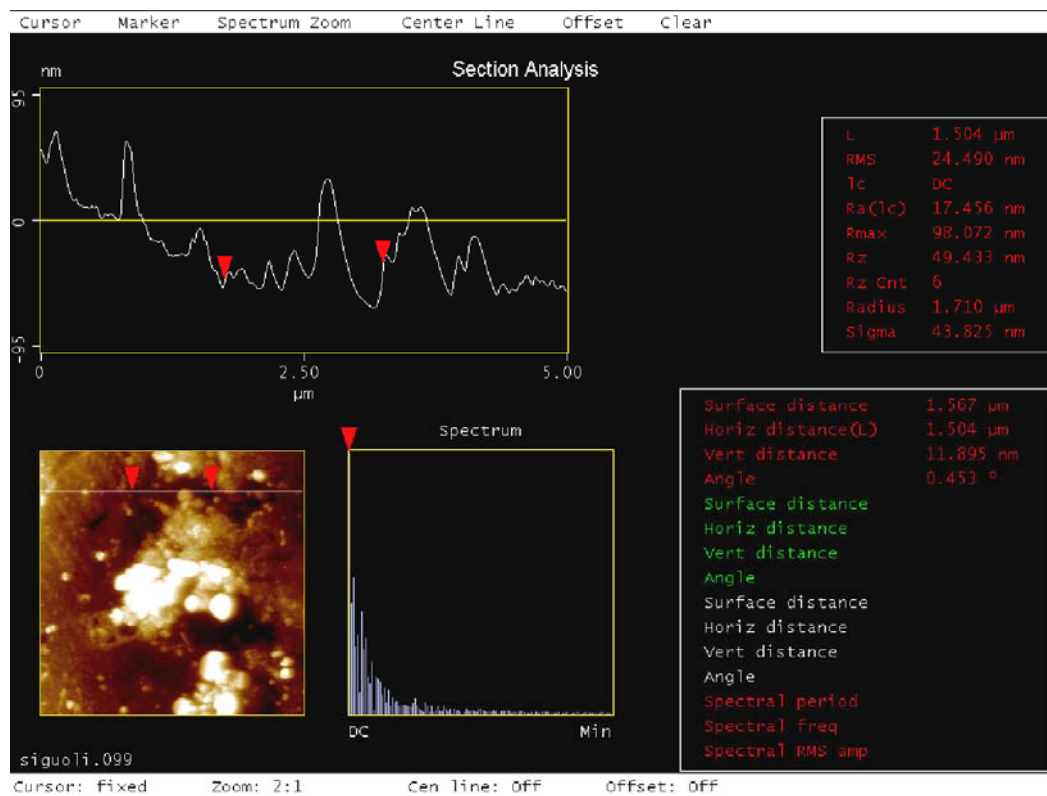
**Fig. S4.** IR (KBr pellet) change procedure during the counteranion exchange of **1a** (1) with  $\text{NH}_4\text{ClO}_4$  after 24 h (2) at 60 °C.

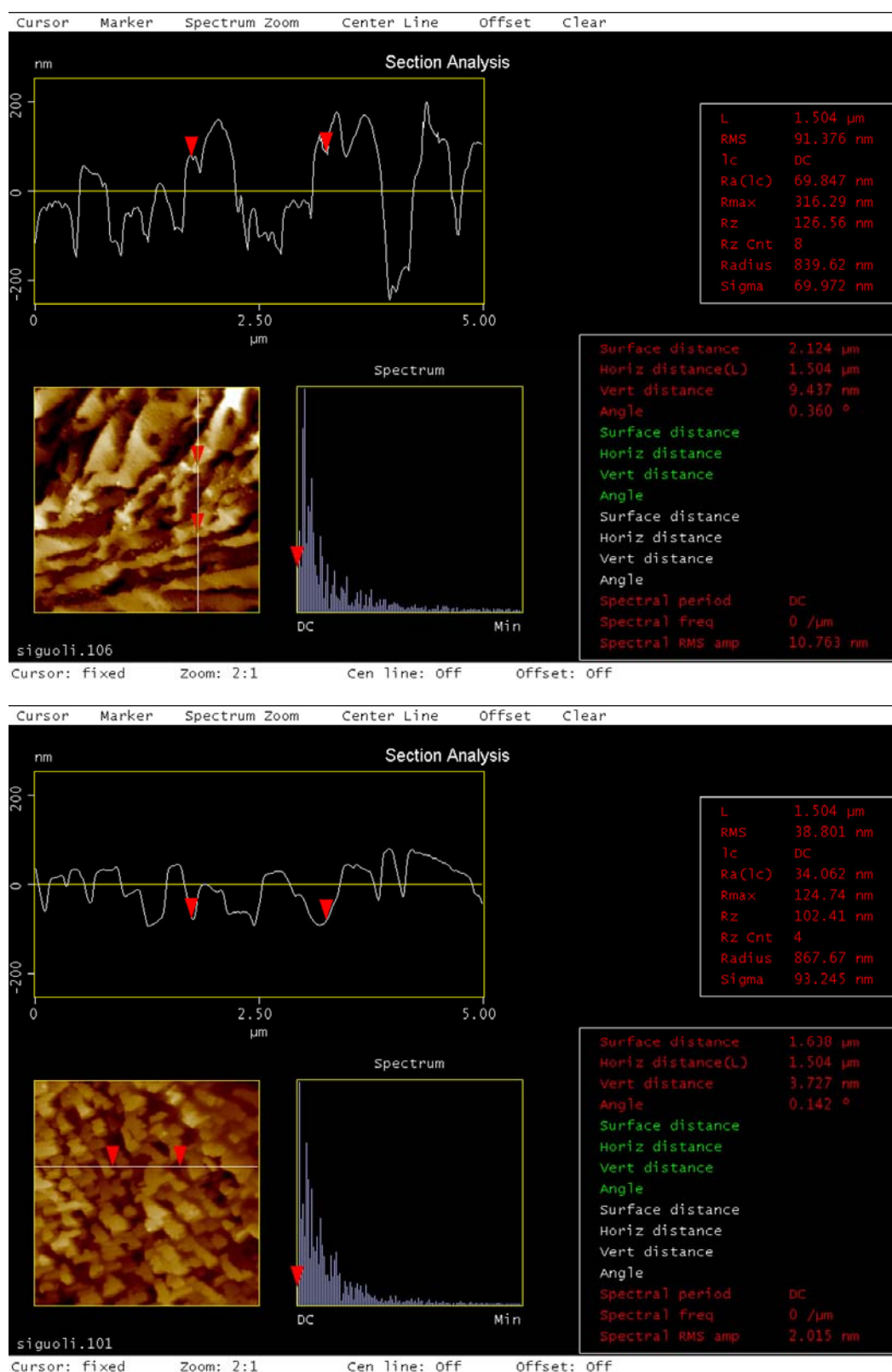


**Fig. S5.** IR (KBr pellet) change procedure during the counteranion exchange of **1a** (1) with  $\text{NH}_4\text{PF}_6$  after 24 h (2) at 60 °C.



**Fig. S6.** X-ray powder diffraction patterns of the solid after anion-exchange: a) **1** simulated, b) **1** with  $\text{NH}_4\text{PF}_6$ , c) **1a** with  $\text{NH}_4\text{PF}_6$ , d) **1a** with  $\text{NaClO}_4$  and e) **1a** simulated.





**Fig. S7.** AFM images of the surface of a crystal of **1**: before anion exchange (top); 15 min after addition of  $\text{NaNO}_2$  solution (0.1 M) (middle); 5 h after addition of  $\text{NaNO}_2$  solution (0.1 M) (bottom).