Electronic Supplementary Material for CrystEngComm

Precursory Ag- bipyridine 2D coordination polymer: A new and efficient route for the synthesis of Ag nanoparticles

Avijit Pramanik, Gopal Das*

Department of Chemistry, Indian Institute of Technology Guwahati, Assam, 781 039, India

e-mail: gdas@iitg.ernet.in, Tel.: +91-361-258-2313; Fax: +91-361-258-2349

SUPPLEMENTARY INFORMATIONS

Table S1. Selected bond length and bond angles of complex **1**.

Ag1	N1	2.223(2)	Ag3	O5	2.522(3)	Ag3	O6	2.436(3)	Ag2	N2	2.230(3)
Ag1	O3	2.308(3)	Ag3	O7	2.582(3)	Ag3	O6	2.437(3)	Ag2	O2	2.300(2)
Ag1	Ag2	2.9929(5)	Ag3	O7	2.582(3)	Ag3	O5	2.522(3)	Ag2	O5	2.549(3)

O5	Ag3	O7	132.46(10)	O3	Ag1	Ag2	139.01(8)	O2	Ag2	Ag1	110.04(7)
O6	Ag3	O7	96.92(10)	O6	Ag3	O6	120.60(15)	O5	Ag2	Ag1	150.94(8)
O6	Ag3	O7	50.76(8)	O6	Ag3	O5	94.90(10)	O6	Ag3	O5	144.46(10)
O5	Ag3	O7	132.46(10)	O6	Ag3	O5	144.46(10)	O6	Ag3	O5	94.90(10)
O5	Ag3	O7	105.22(11)	N2	Ag2	O2	157.44(10)	O5	Ag3	O5	49.74(13)
O7	Ag3	O7	117.77(15)	N2	Ag2	O5	112.18(10)	O6	Ag3	O7	50.76(8)
N1	Ag1	O3	151.73(11)	O2	Ag2	O5	77.70(10)	O6	Ag3	O7	96.91(10)
N1	Ag1	Ag2	68.86(7)	N2	Ag2	Ag1	71.69(7)	O5	Ag3	O7	105.22(11)

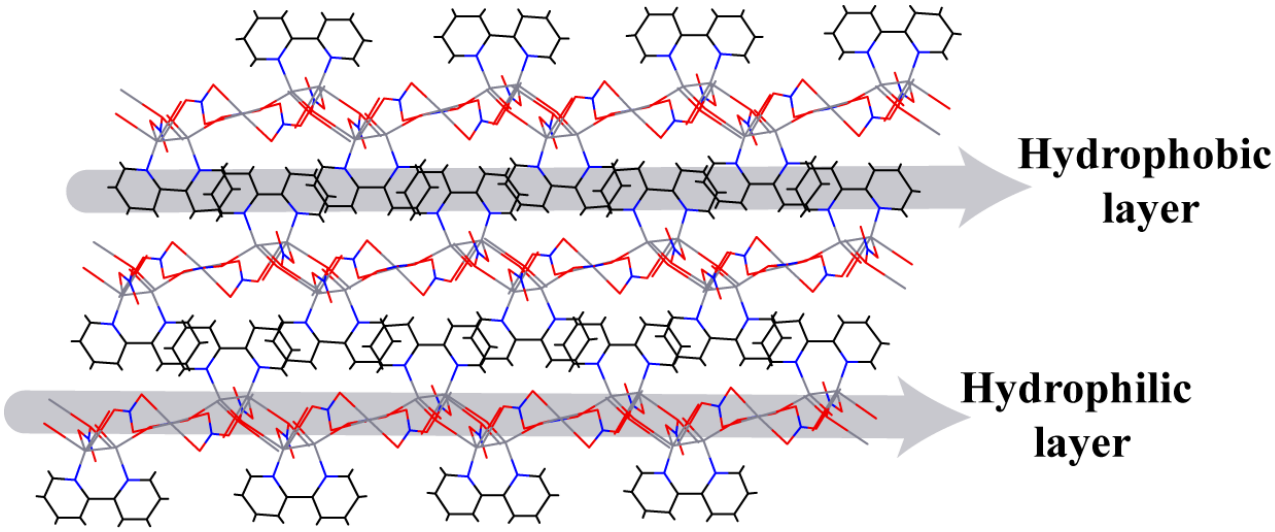

Figure S1 Packing diagram of complex **1** viewed along *b* axis.

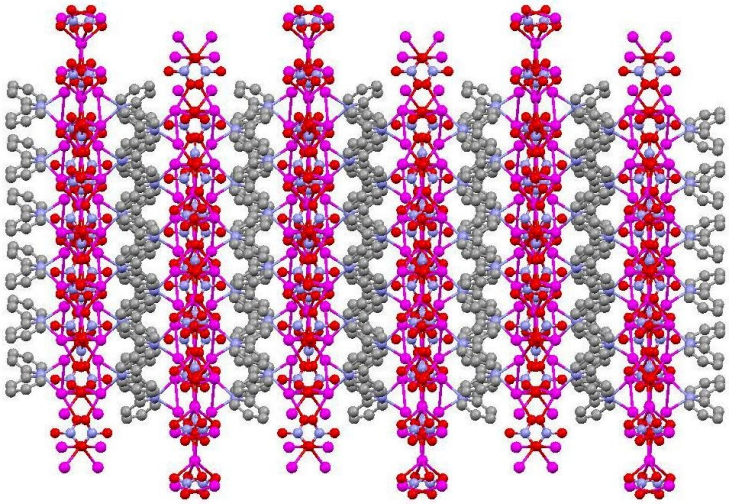

Figure S2 Helical hydrophobic network along axis.

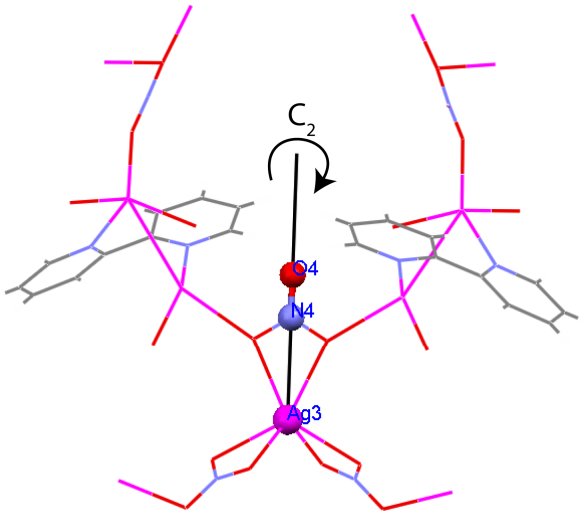

Figure S3 imposed twofold symmetry (C_2) axis passing through Ag_3, N_4 and O_4 atoms.

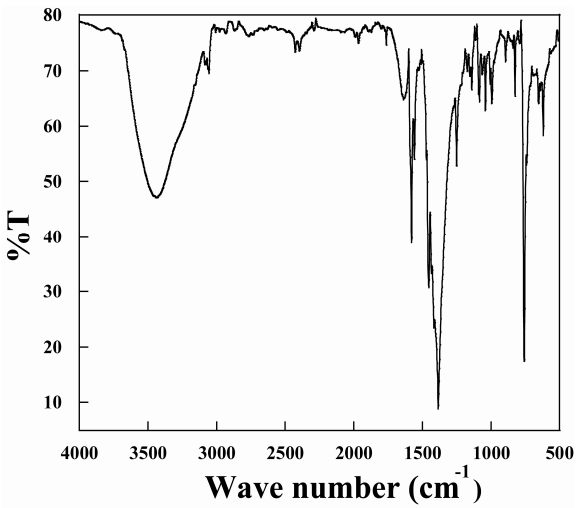

Figure S4 FT-IR spectra of complex **1**.

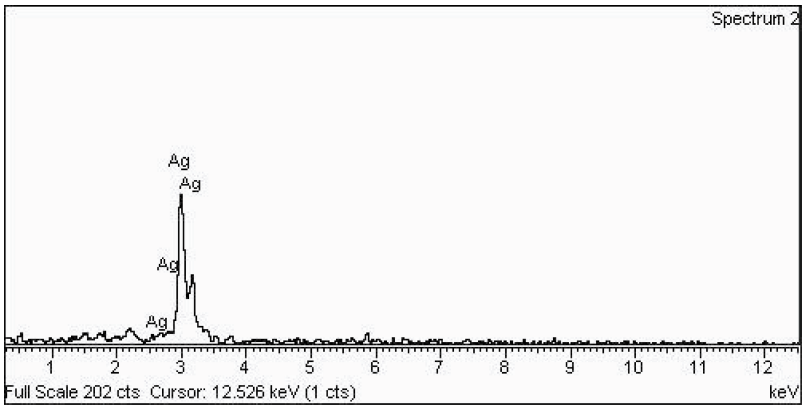

Figure S5 Energy dispersive X-ray analysis of as prepared Ag NPs from MOF.

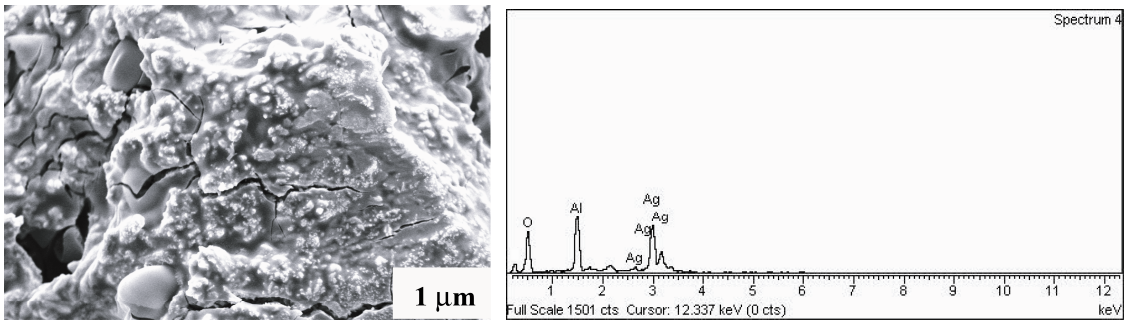

Figure S6 SEM and EDX analysis of thermal decomposition product of the $AgNO_3$ (control).

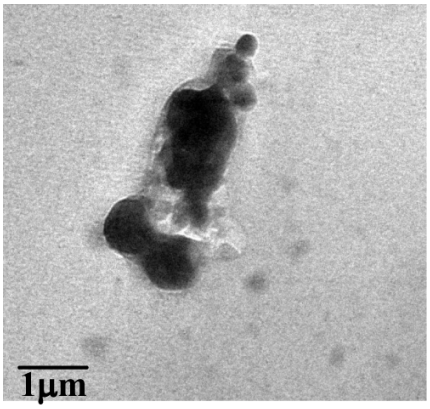

Figure S7 TEM image of $AgNO_3$ thermal deposition product (control experiment).

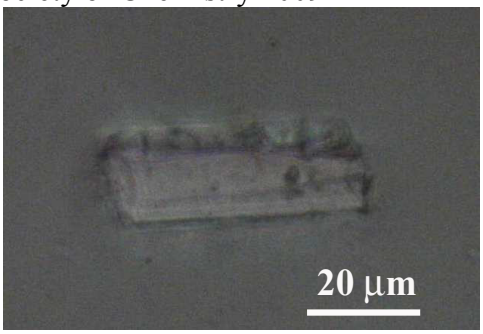

Figure S8 Optical image of the crystal of complex **1**.

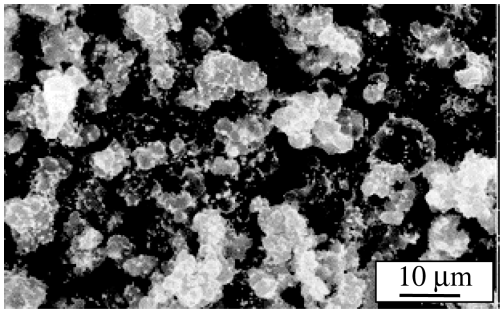

Figure S9 SEM image of as-prepared the complex **1** before heating.

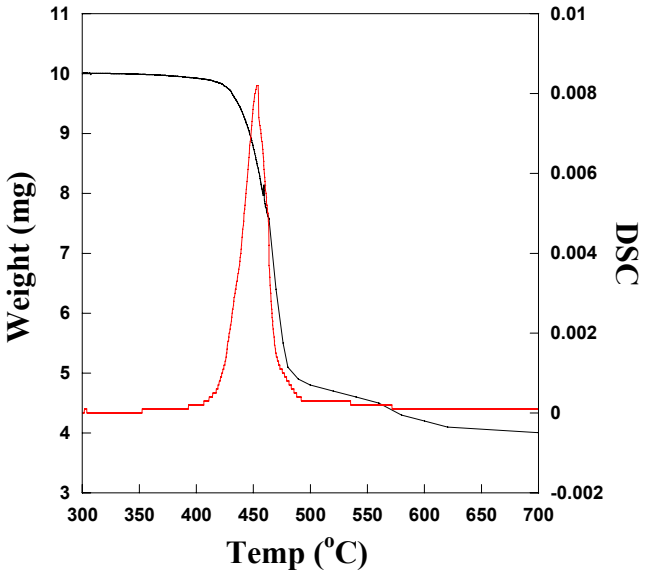

Figure S9 TG-DSC plot of $AgNO_3$.