

Electronic Supplementary Information File

Azido bridged binuclear copper (II) Schiff base compound: synthesis, structure and electrical properties

Mrinmoy Ghosh^a, Sandip Saha^{a*}, Abhijit Banerjee^{b*}, Dieter Schollmeyer^c, Ananda Sarkar^d, and Saikat Banerjee^e

^a*Department of Chemistry, Acharya Prafulla Chandra College, New Barrackpore, Kolkata-700131, India*

^b*Department of Electronic Science, Acharya Prafulla Chandra College, New Barrackpore, Kolkata-700131, India*

^c*Institut fur Organische Chemie, Universit at Mainz, Duesbergweg 10-14 55099 Mainz, Germany*

^d*Department of Physics, Acharya Prafulla Chandra College, New Barrackpore, Kolkata-700131, India,*

^e*Ashuti Netaji High School (H.S.), Village+P.O.- Ashuti, P.S.- Maheshtala, South 24 Parganas, PIN-700141, India*

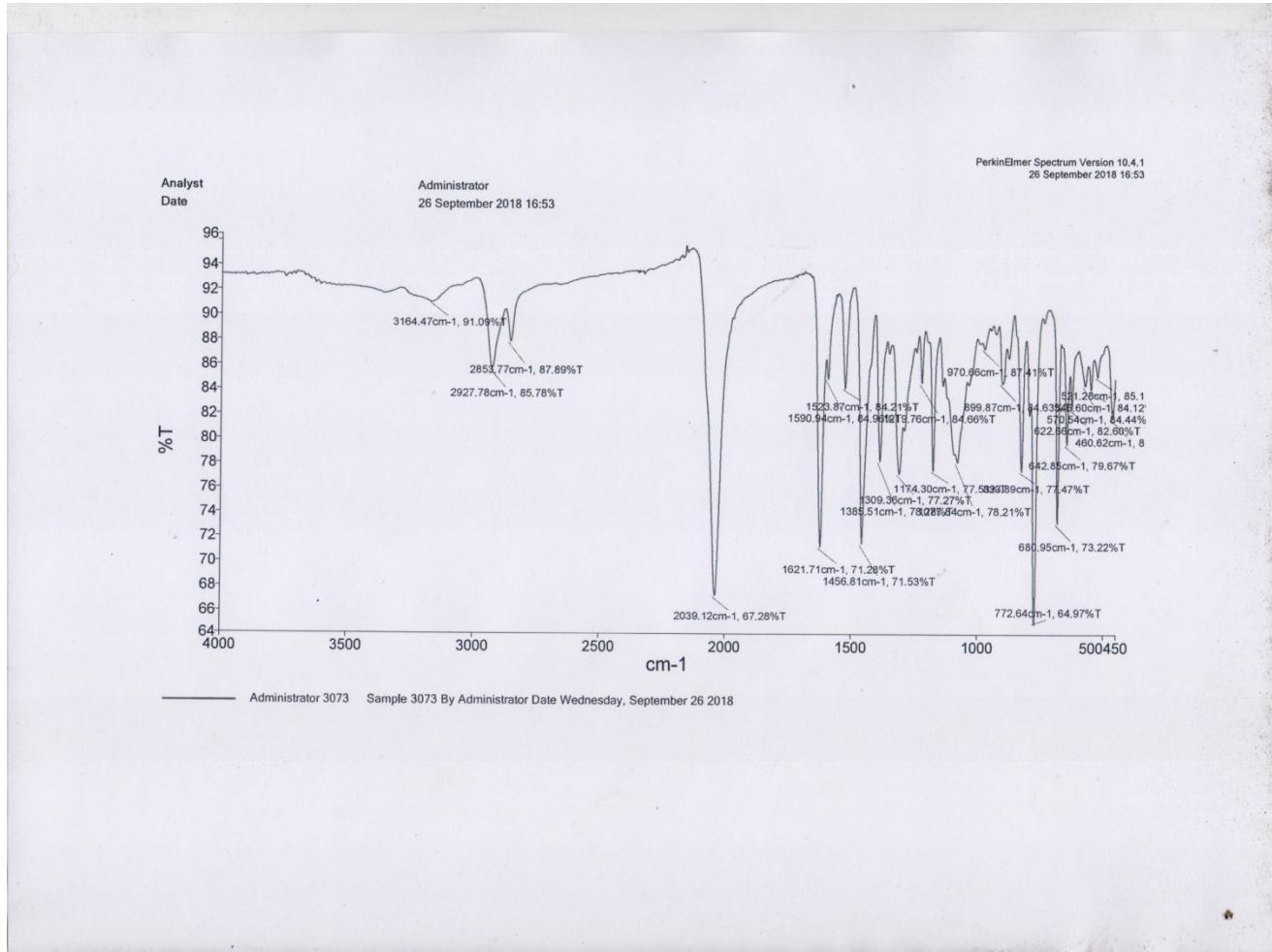


Fig. S1: IR Spectra of Complex1

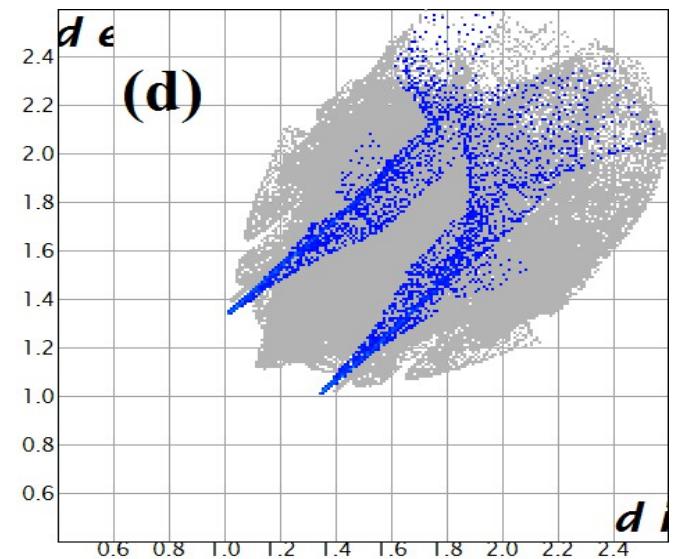
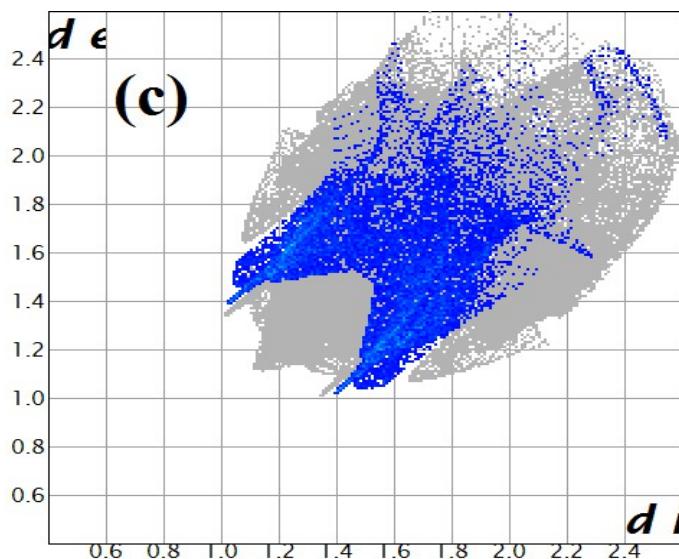
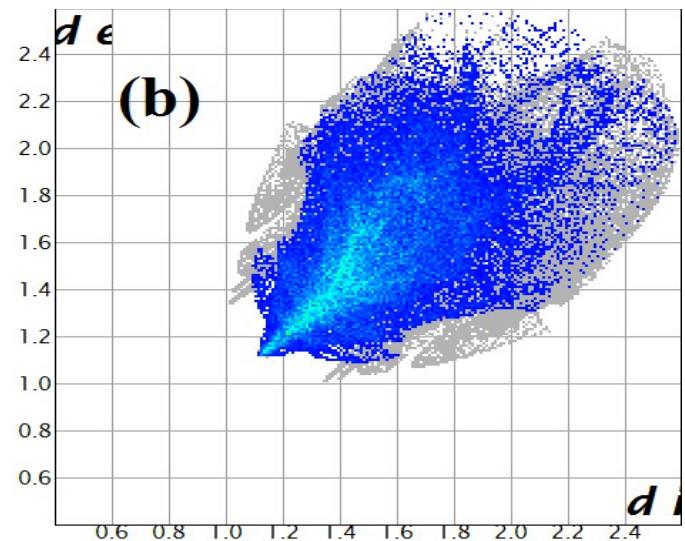
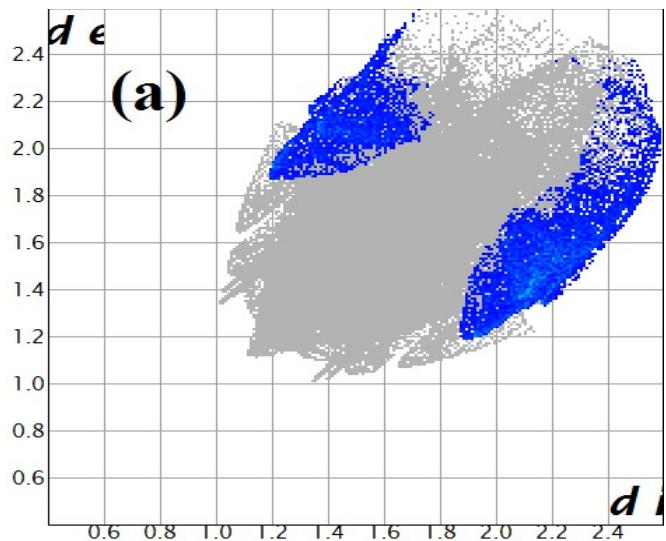
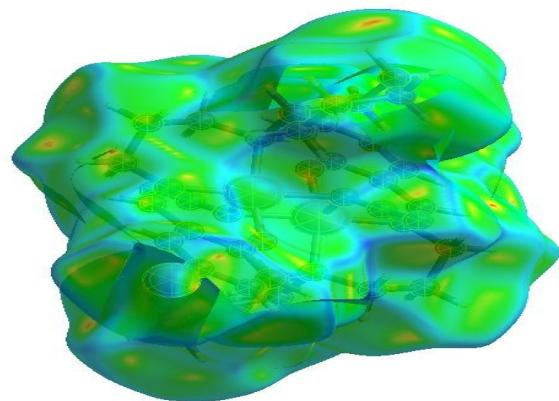
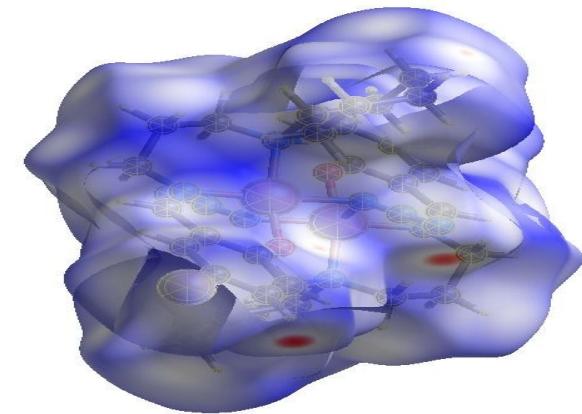


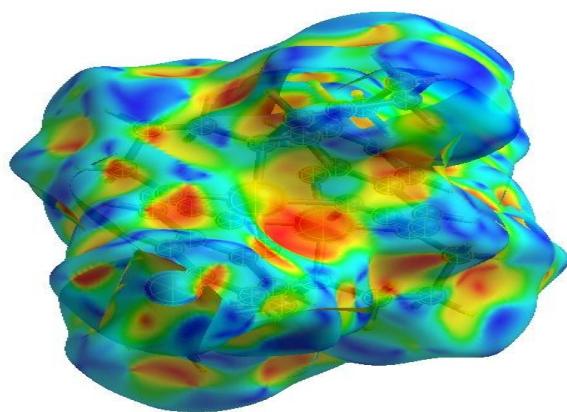
Fig. S2 (A): Decomposed fingerprint plot of complex 1: (a) $\text{Br}\cdots\text{H}/\text{H}\cdots\text{Br}$ contacts; (b) $\text{H}\cdots\text{H}$ contacts; (c) $\text{N}\cdots\text{H}/\text{H}\cdots\text{N}$ contacts; (d) $\text{O}\cdots\text{H}/\text{H}\cdots\text{O}$ contacts.



(a)



(b)



(c)

Fig. S2 (B): (a) Curvedness (b) Dnorm (c) Shape index

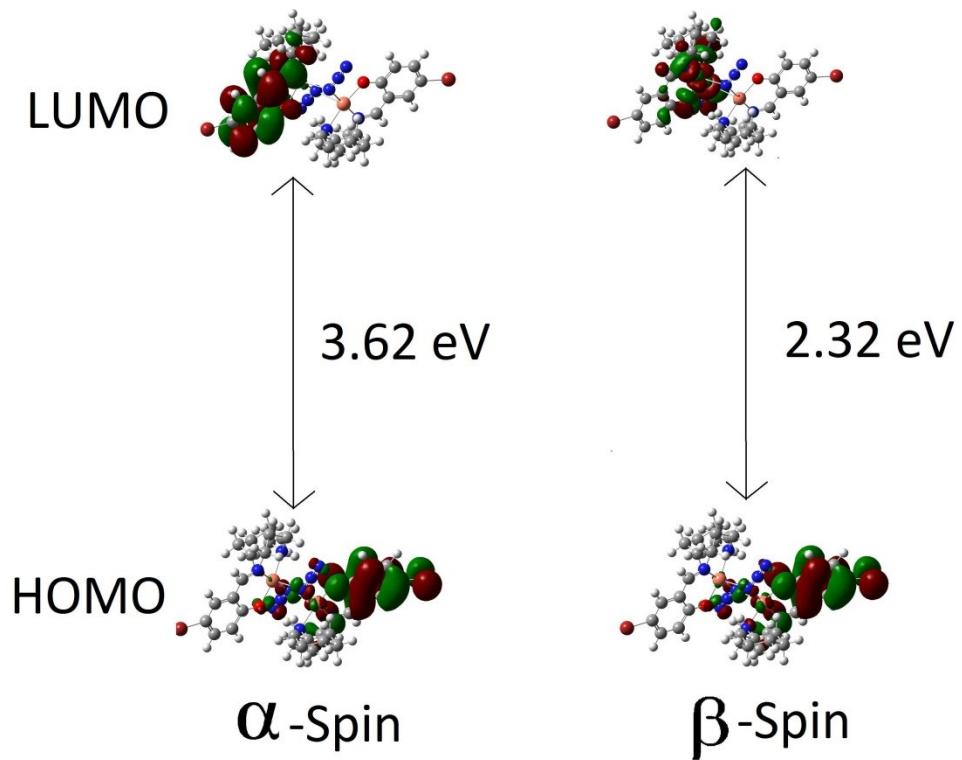


Fig. S3 DFT computed energy of MOs in the triplet state and the energy difference between HOMO and LUMO of the compound 1.

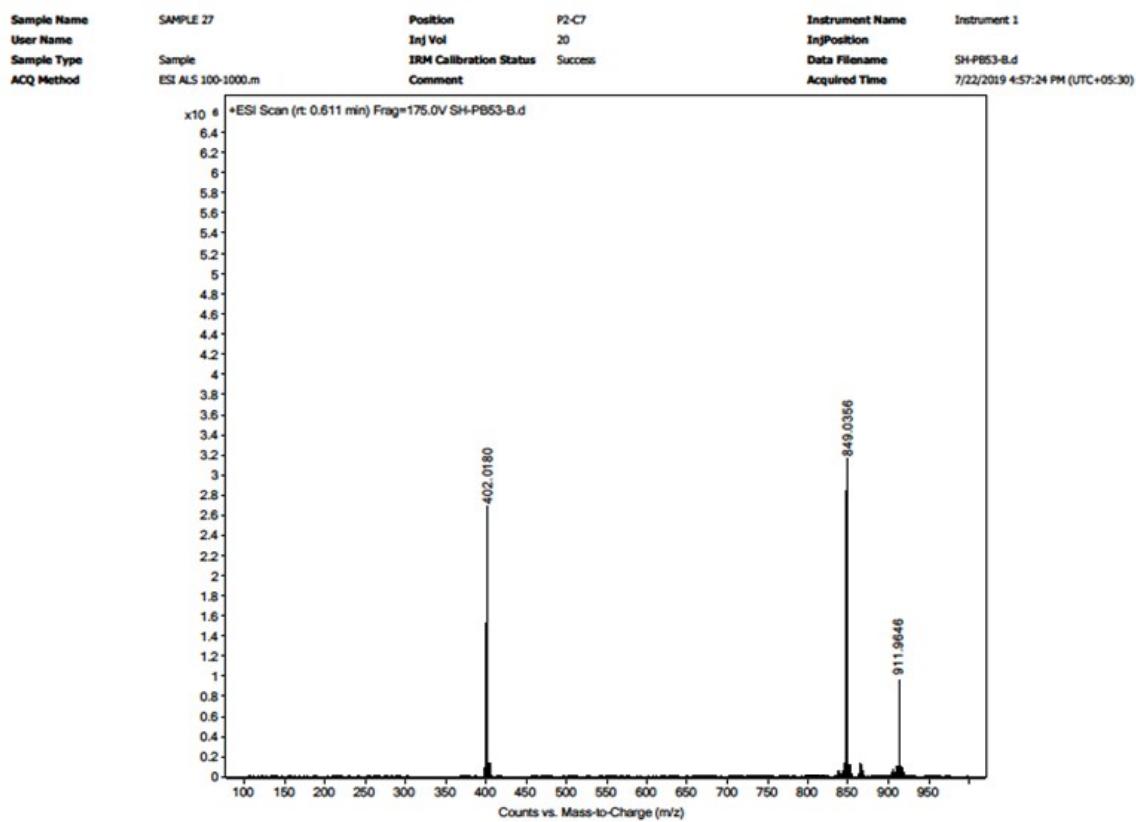


Fig.S4(a) ESI MS spectra of complex**1** in 1:1 methanol and acetonitrile mixture.

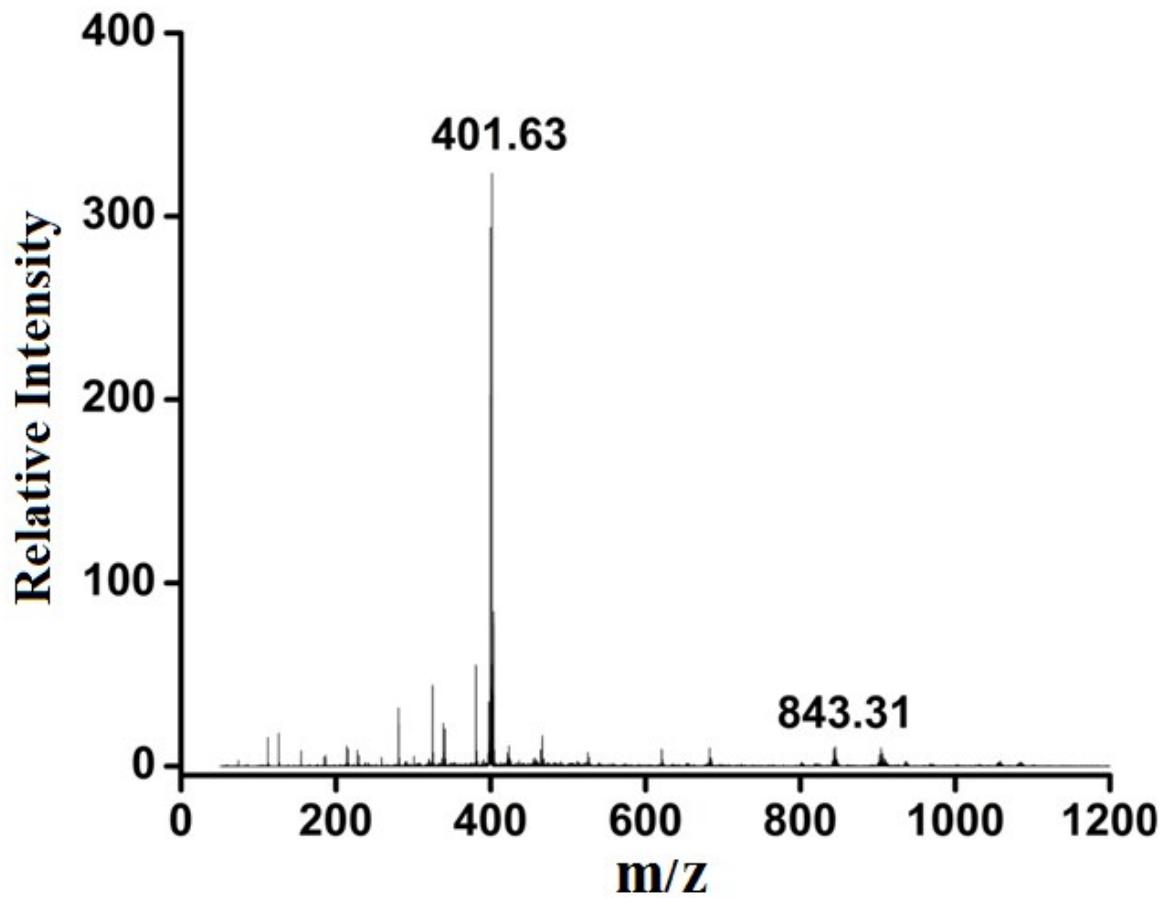


Fig.S4(b) ESI MS spectra of complex **1** before deposition.

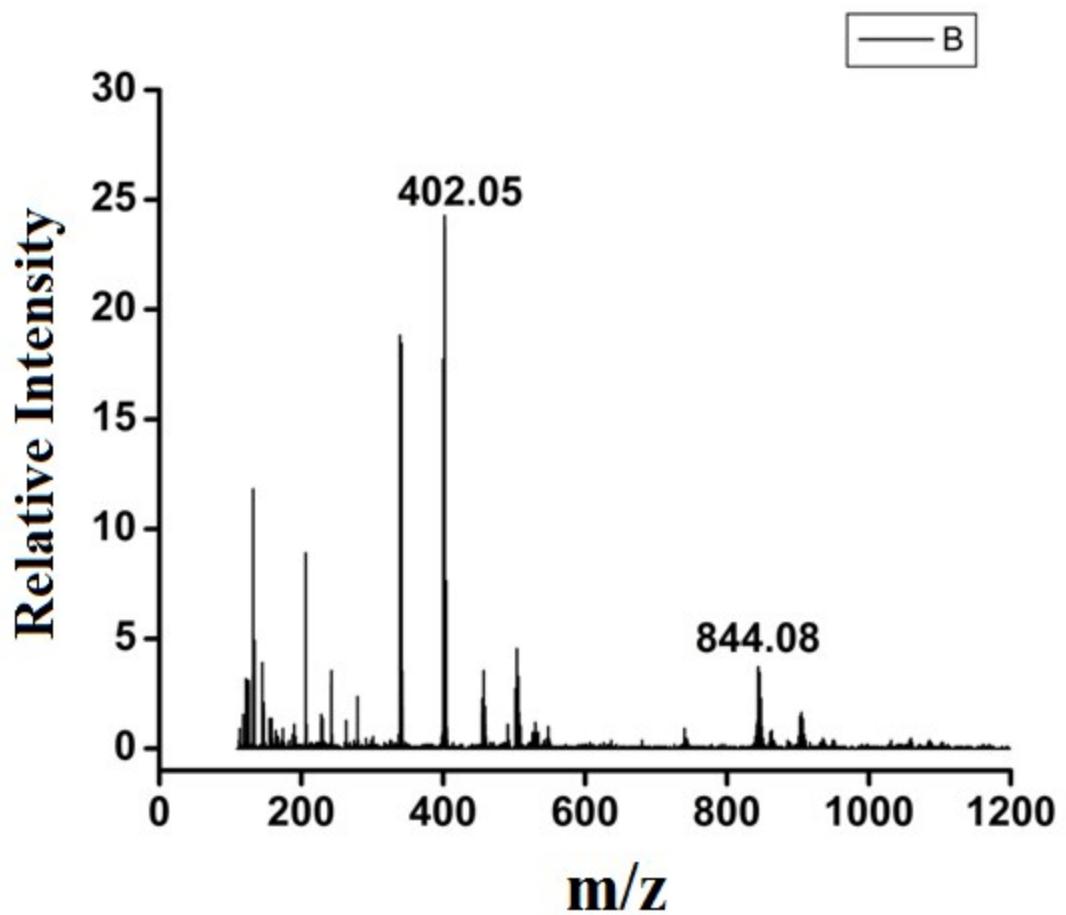


Fig.S4(c) ESI MS spectra of complex **1** after deposition.

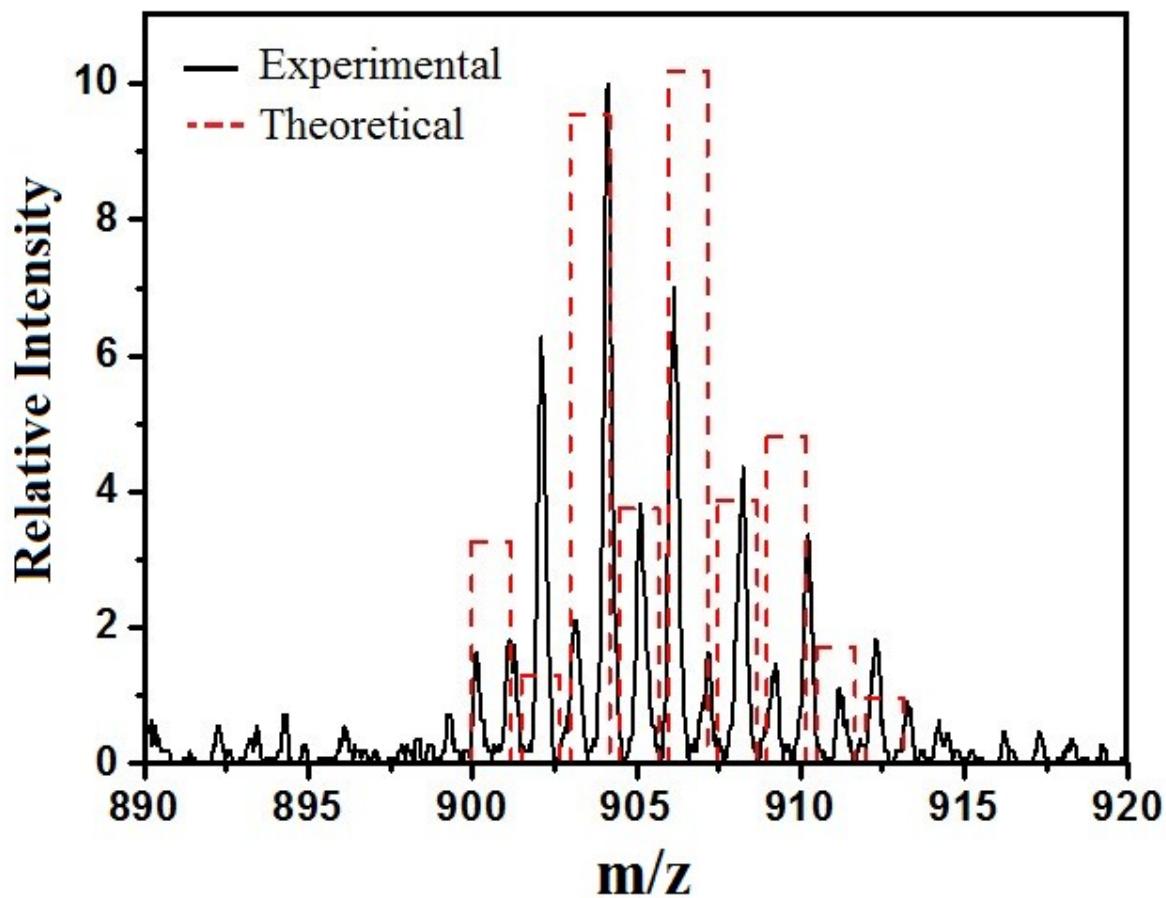


Fig.S4(d) Experimental isotopic pattern (black) of complex **1** with theoretical pattern (red) after deposition.

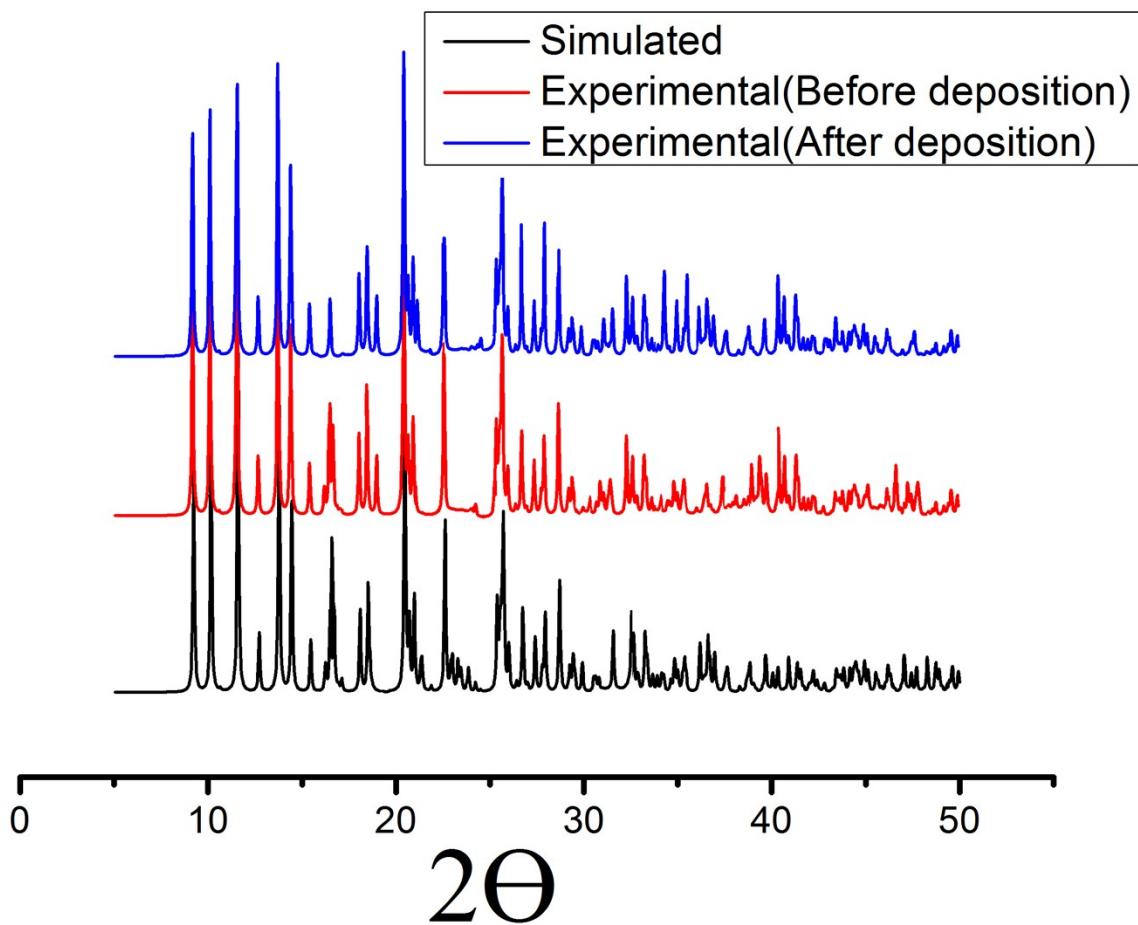


Fig.S5 Experimental (before and after deposition) and simulated PXRD patterns of the complex confirming purity of the bulk material.

Table S1: Bond distances (\AA) and bond angles ($^\circ$) for complex 1

Bond distances (\AA)			
Bond	X-ray	Bond	X-ray
Cu1A-O7A	1.926(6)	Cu1A-N20	2.275(8)
Cu1A-N9A	1.961(6)	Cu1A- N20A	2.037(7)

Cu1A-N13A	2.065(6)	N20-N21	1.22(1)
Bond angles (°)			
Angle	X-Ray (°)	Angle	X-Ray (°)
Cu1-N20A-Cu1A	93.9(3)	N13-Cu1-N20	84.9(3)
O7A-Cu1A-N9A	91.7(3)	N13-Cu1-N20A	92.9(3)
O7A-Cu1A-N13A	167.0(3)	N20-Cu1-N20A	86.1(3)
O7A-Cu1A-N20	97.1(3)	Cu1A-N20-N21	129.6(6)
O7A-Cu1A-N20A	87.5(3)	N20-N21-N22	178.5(9)
N9-Cu1-N20A	100.8(3)	Cu1A-N20A-N21A	117.8(6)
Cu1-N20-N21	129.6(6)	N20A-N21A-N22A	178.5(9)