

Electronic supporting information

One-dimensional chains based on linear tetranuclear copper(I) units: reversible structural transformation and luminescence change

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Fig. S1. The solid-state UV-visible spectra for **1** and **2** at room temperature.

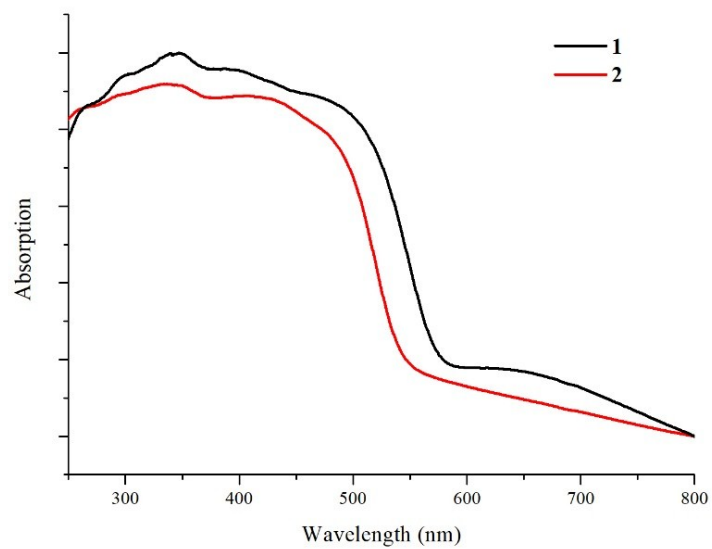


Fig. S2. The PXRD patterns of **1**. (a) Simulation and (b) synthesis.

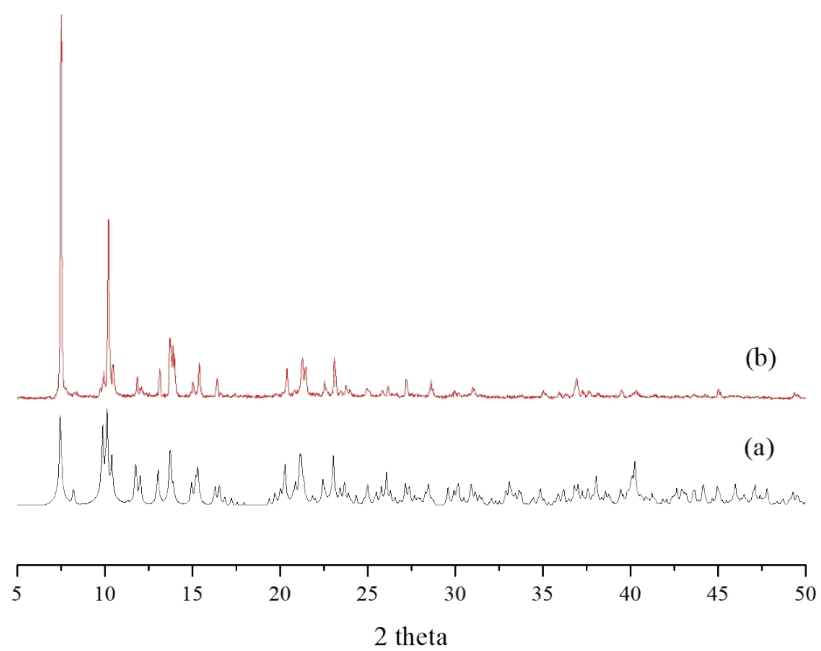


Fig. S3. The PXRD patterns of **2**. (a) Simulation and (b) synthesis.

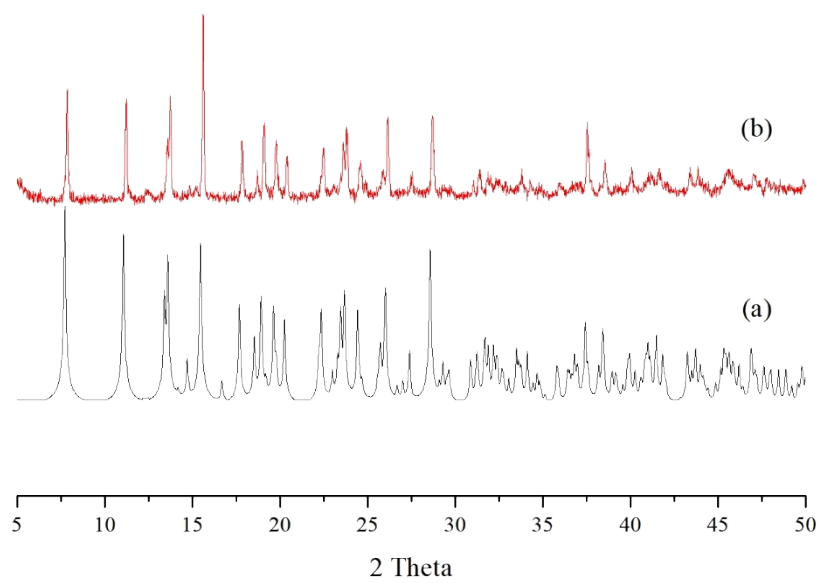


Fig. S4. PXRD patterns for complex **1** immersed in various solvents.

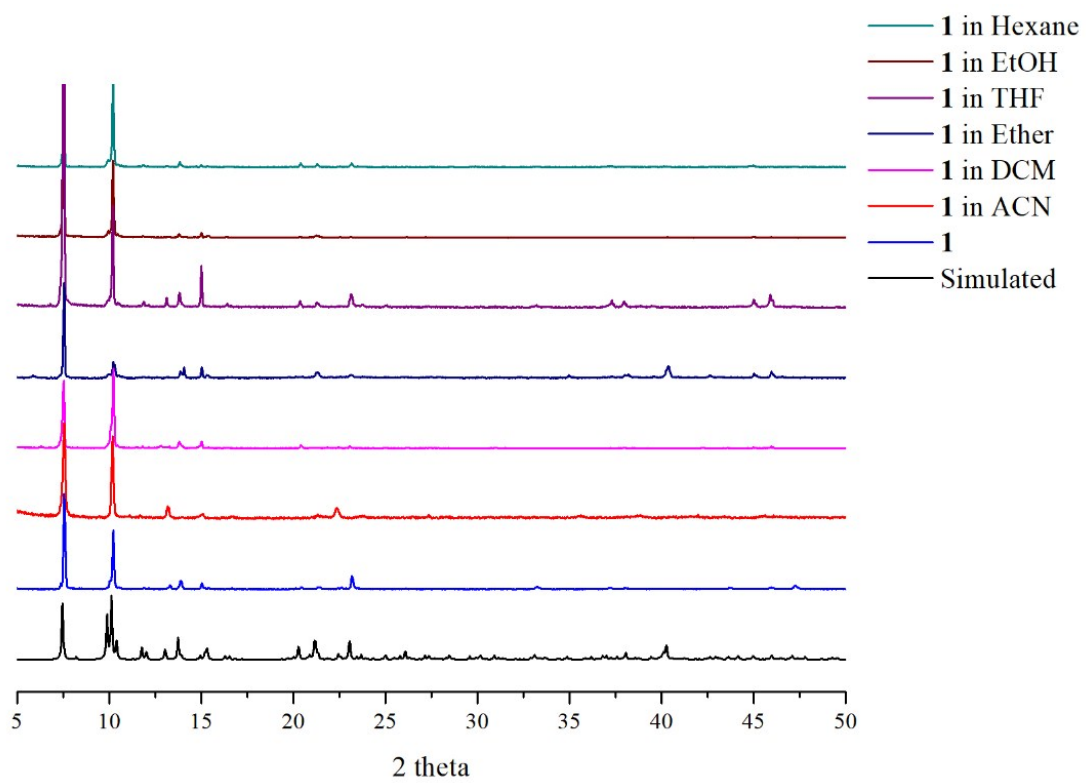


Fig. S5. (a) Complex **1** (b) **1** immersed in methanol (c) **1** immersed in methanol then back in DMF (d) **1** immersed in water (e) **1** immersed in water then back in DMF under 365 nm UV light.

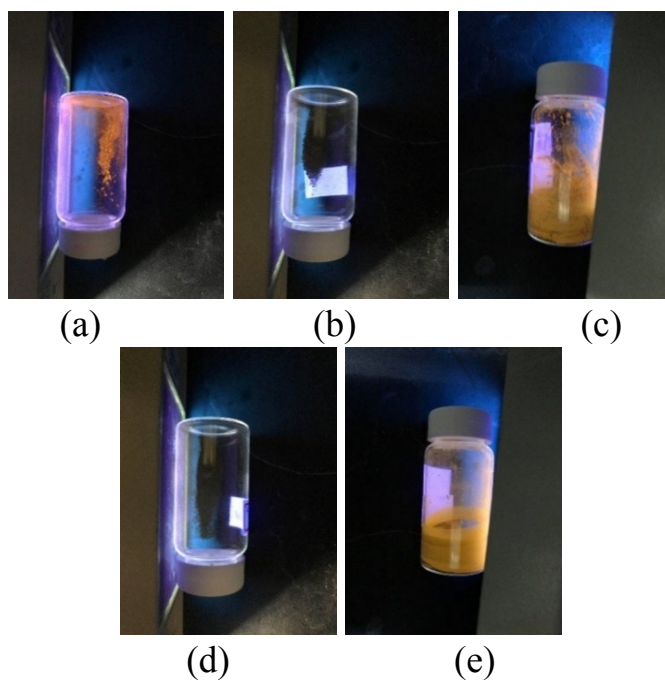


Fig. S6. PXRD patterns for **2** after immersed in various solvents.

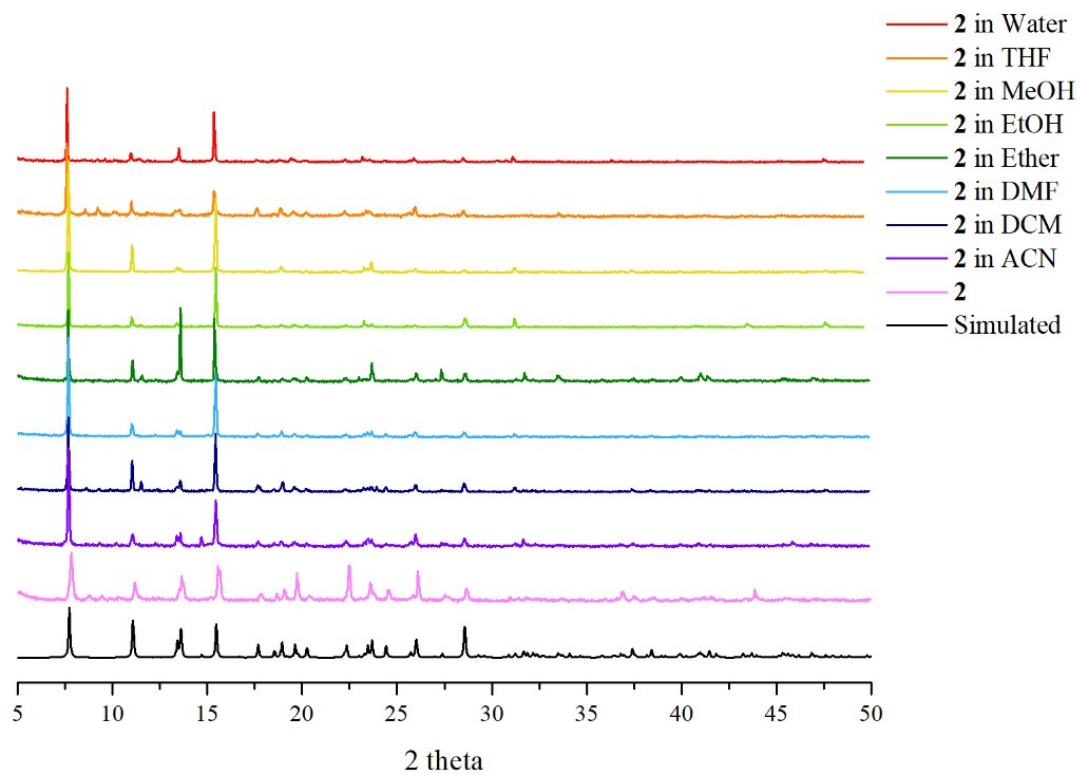
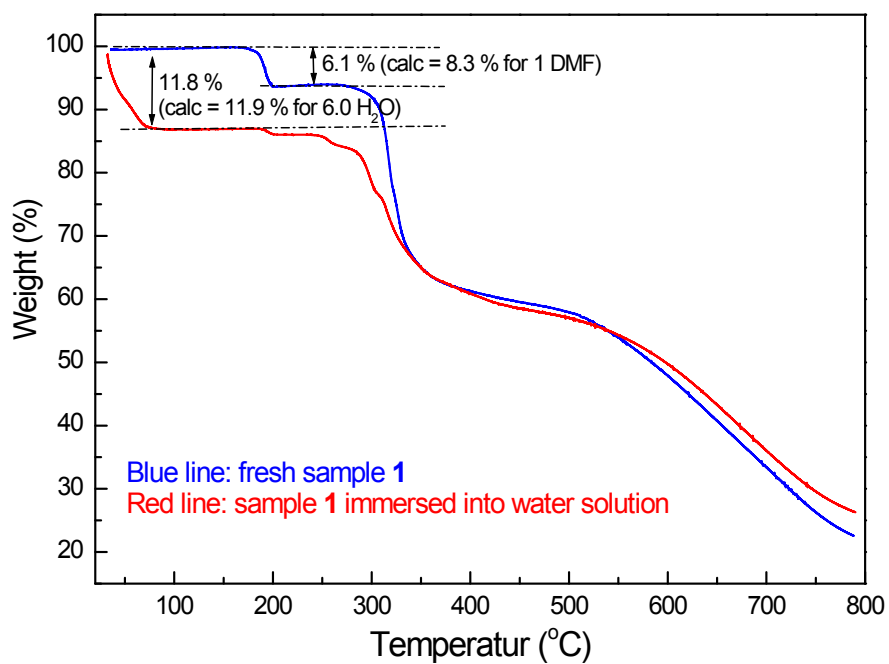
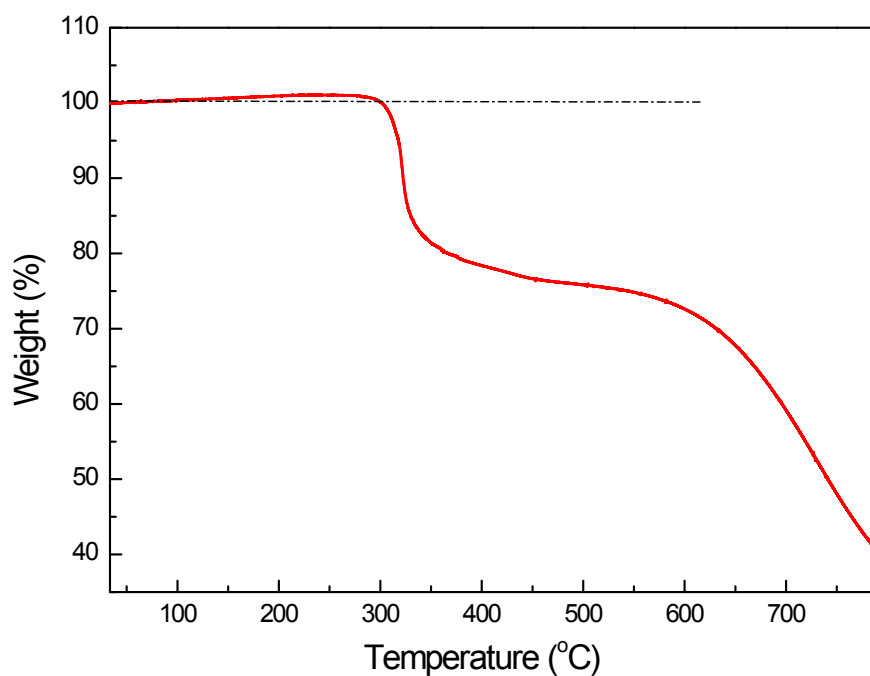


Fig. S7. TG analysis for (a) complex **1** and its hydrated product and (b) **2**.



(a)



(b)

Fig. S8. TG measurements of cyclic de-/re-hydration process for **1**.

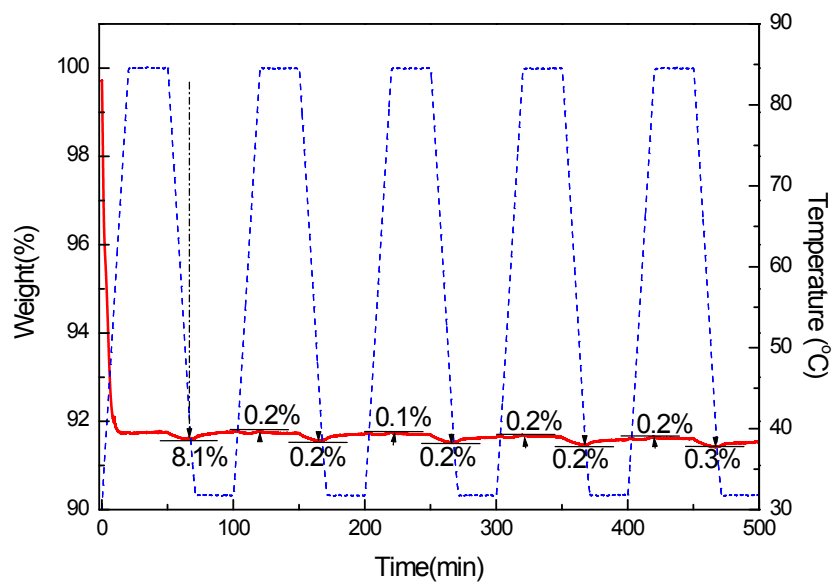


Fig. S9. Water-vapor adsorption isotherm for **1**.

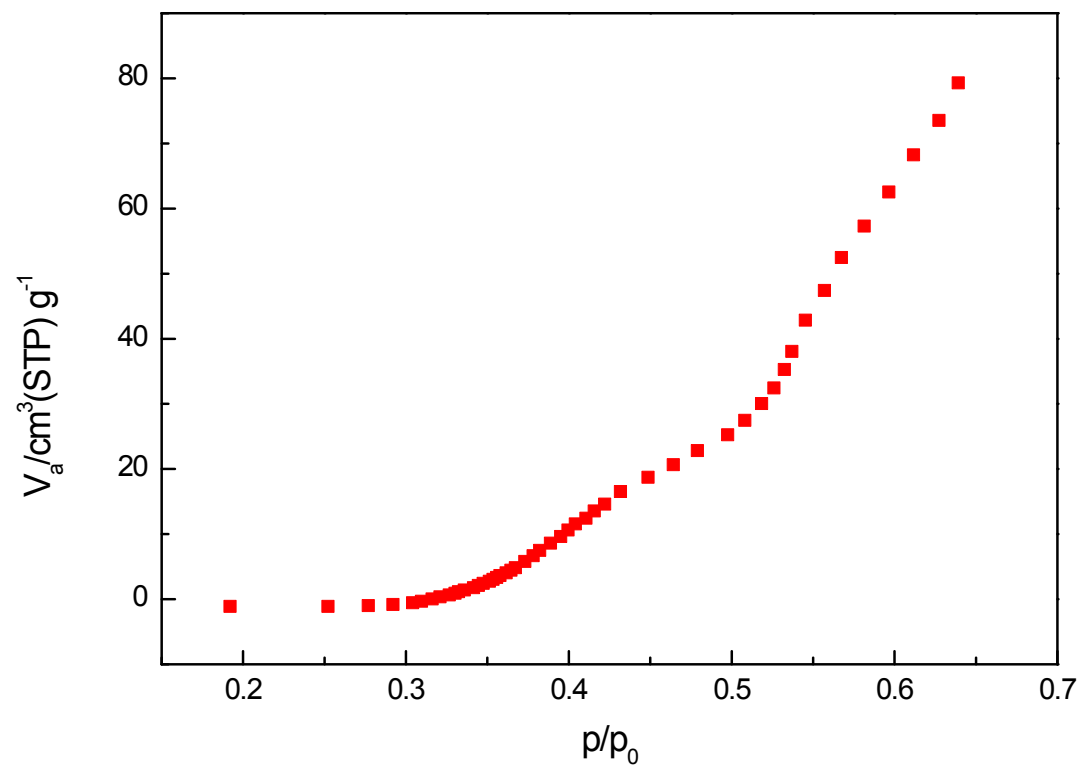
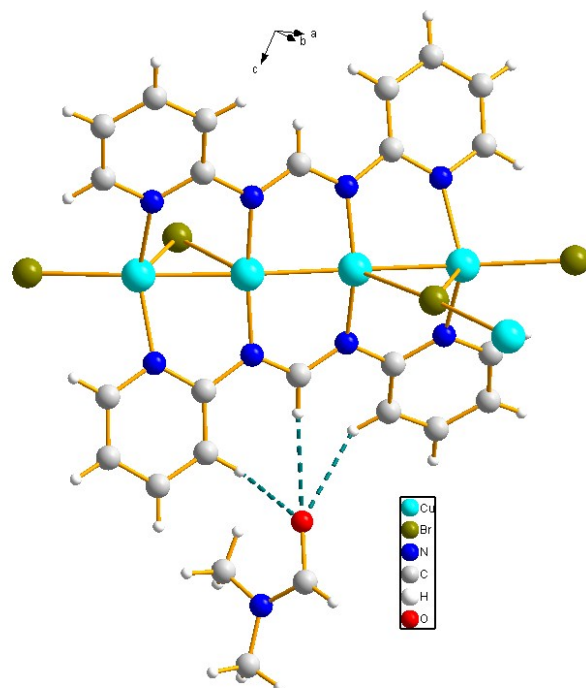
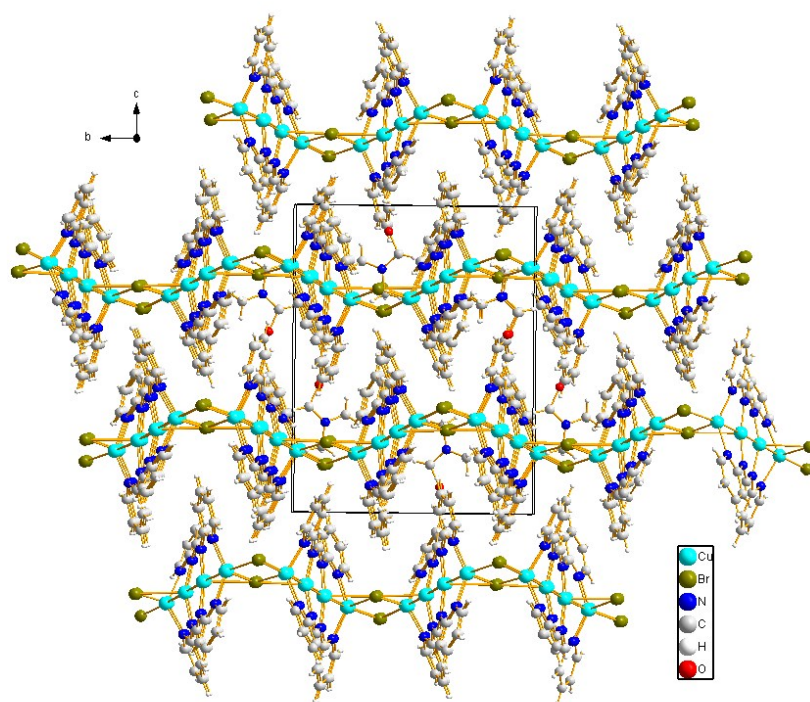


Fig. S10. Packing diagram for **1**.



EDS data for complex 1

Spectrum processing : No peaks omitted

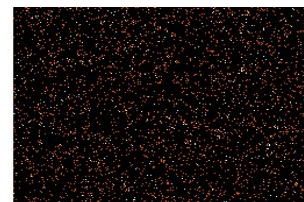
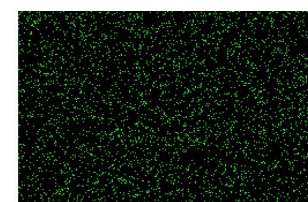
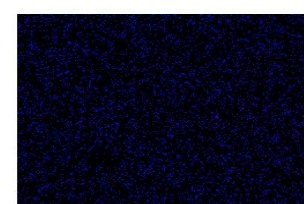
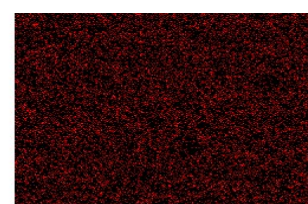
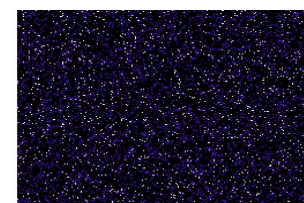
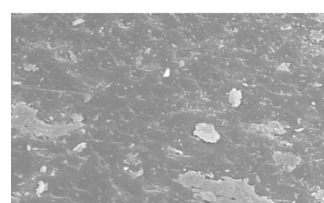
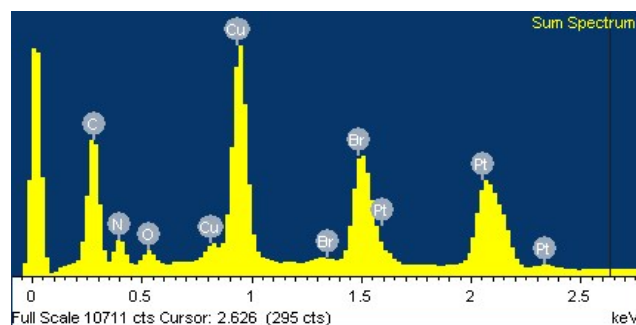
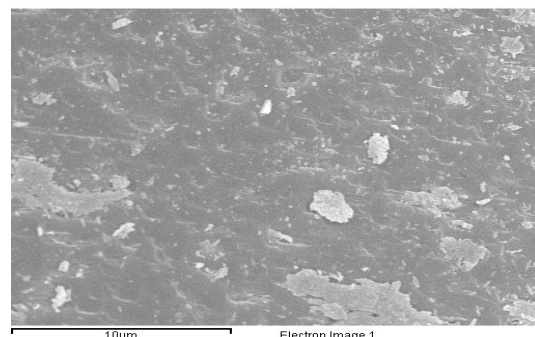
Processing option : All elements analyzed (Normalised)

Number of iterations = 3

Standard :

C CaCO3 1-Jun-1999 12:00 AM
 N Not defined 1-Jun-1999 12:00 AM
 O SiO2 1-Jun-1999 12:00 AM
 Cu Cu 1-Jun-1999 12:00 AM
 Br KBr 1-Jun-1999 12:00 AM
 Pt Pt 1-Jun-1999 12:00 AM

Element	Weight%	Atomic%
C K	26.08	58.75
N K	9.68	18.70
O K	2.28	3.85
Cu L	26.06	11.10
Br L	13.10	4.44
Pt M	22.80	3.16
Totals	100.00	



O Ka1

Br La1_2

EDS data for complex 2.

Spectrum processing : No peaks omitted

Processing option : All elements analyzed (Normalised)

Number of iterations = 3

Standard :

C CaCO₃ 1-Jun-1999 12:00 AM

N Not defined 1-Jun-1999 12:00 AM

O SiO₂ 1-Jun-1999 12:00 AM

Cu Cu 1-Jun-1999 12:00 AM

I Not defined 1-Jun-1999 12:00 AM

Pt Pt 1-Jun-1999 12:00 AM

Element	Weight%	Atomic%
C K	22.90	60.54
N K	6.94	15.74
O K	1.40	2.77
Cu L	24.18	12.09
I L	18.30	4.58
Pt M	26.28	4.28
Totals	100.00	

