SUPPLEMENTARY MATERIALS

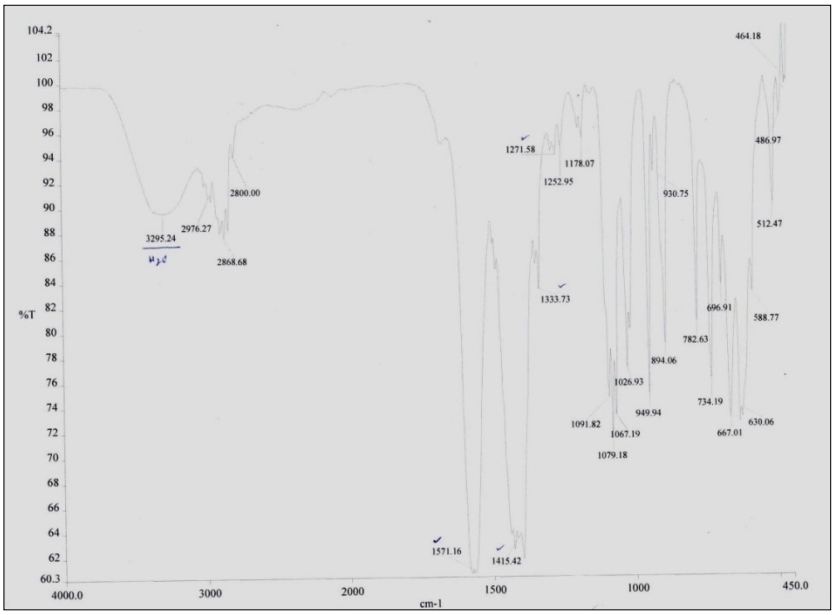

Fig. S1. FT-IR of precursor **1**

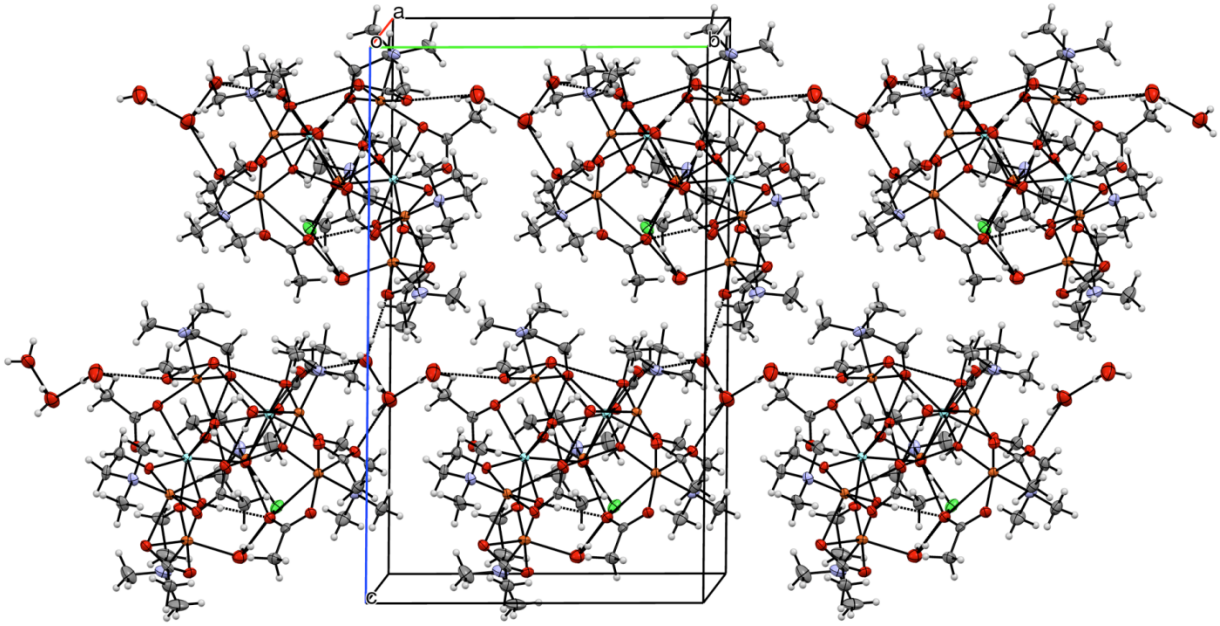

Fig S2a. Molecules of the Y-Cu complex, connected via hydrogen bonding to water solvent clusters $(H_2O)_3$ into a two-dimensional network parallel to the (*bc)* plane

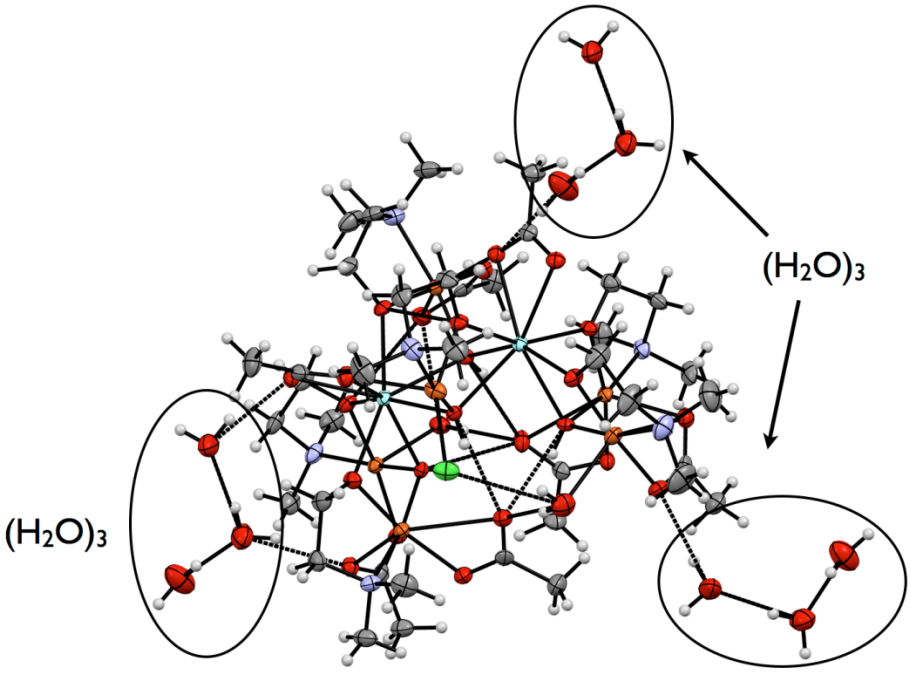

Fig. S2b. Representation of $(H_2O)_3$ water clusters attached to one molecule of the Y-Cu complex.

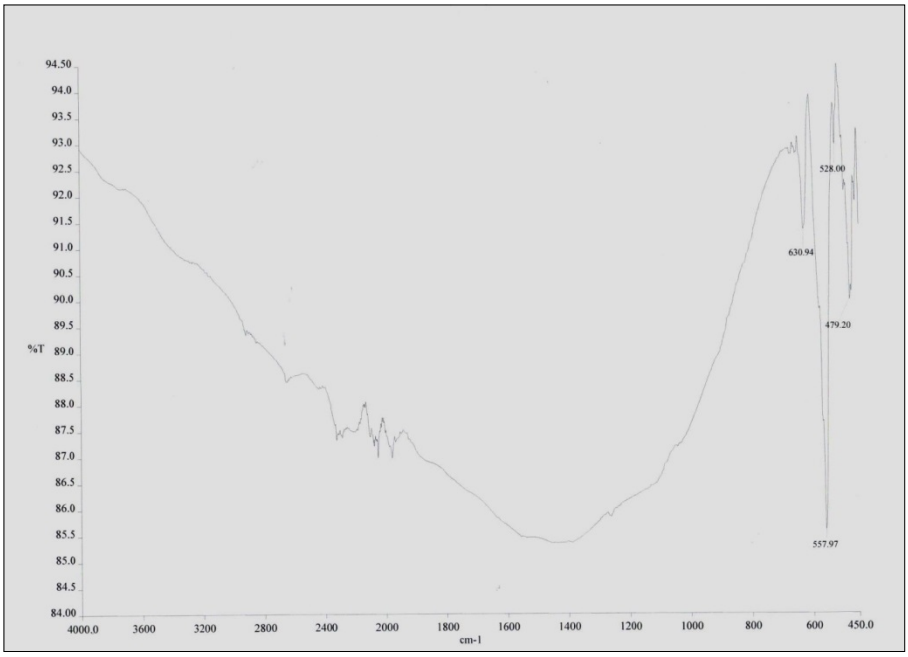

Fig. S3a. FT-IR of residue of decomposed precursor **1** under oxygen ambient.

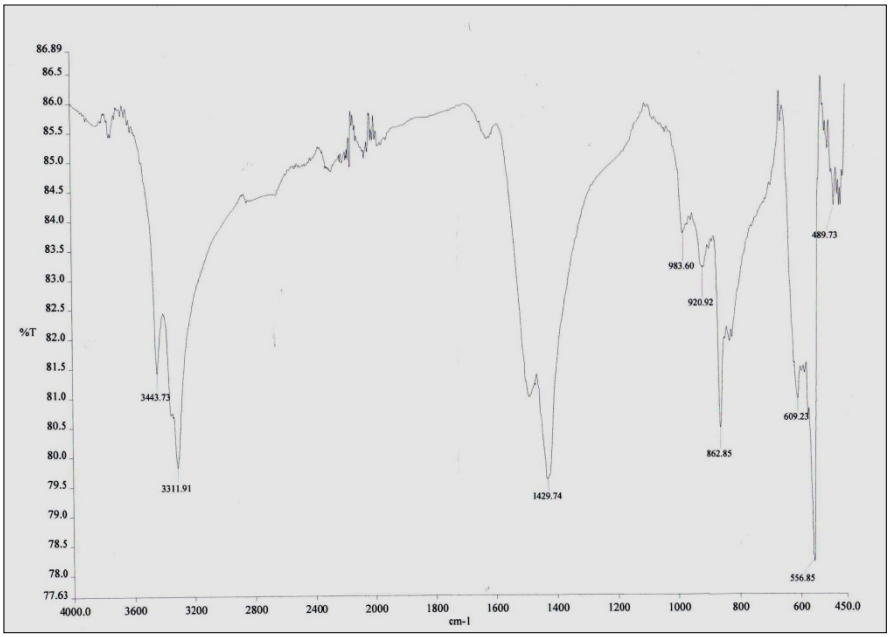

Fig. S3b. FT-IR of residue of decomposed precursor **1** under nitrogen ambient.

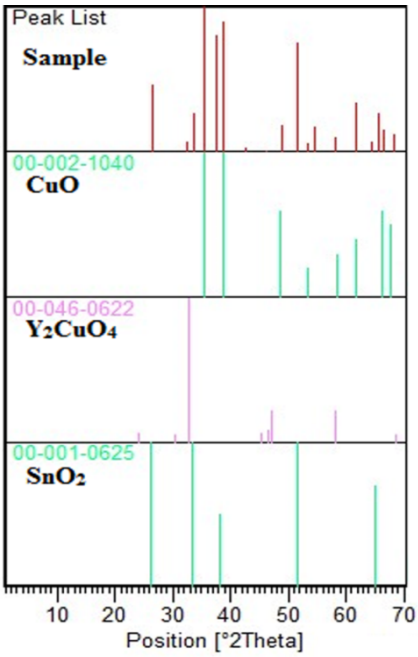

Fig. S4. Stick pattern matching of XRD of Y_2CuO_4-5CuO thin film with the standard ICDD pattern of CuO, Y_2CuO_4 and SnO_2 respectivly.

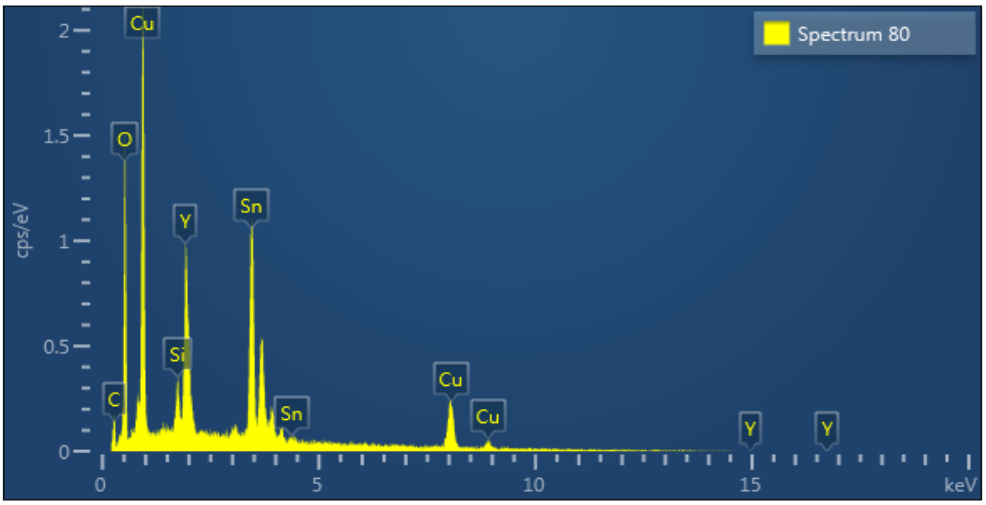

Fig. S5a. Large area scaned EDX of thin films formed from toluene.

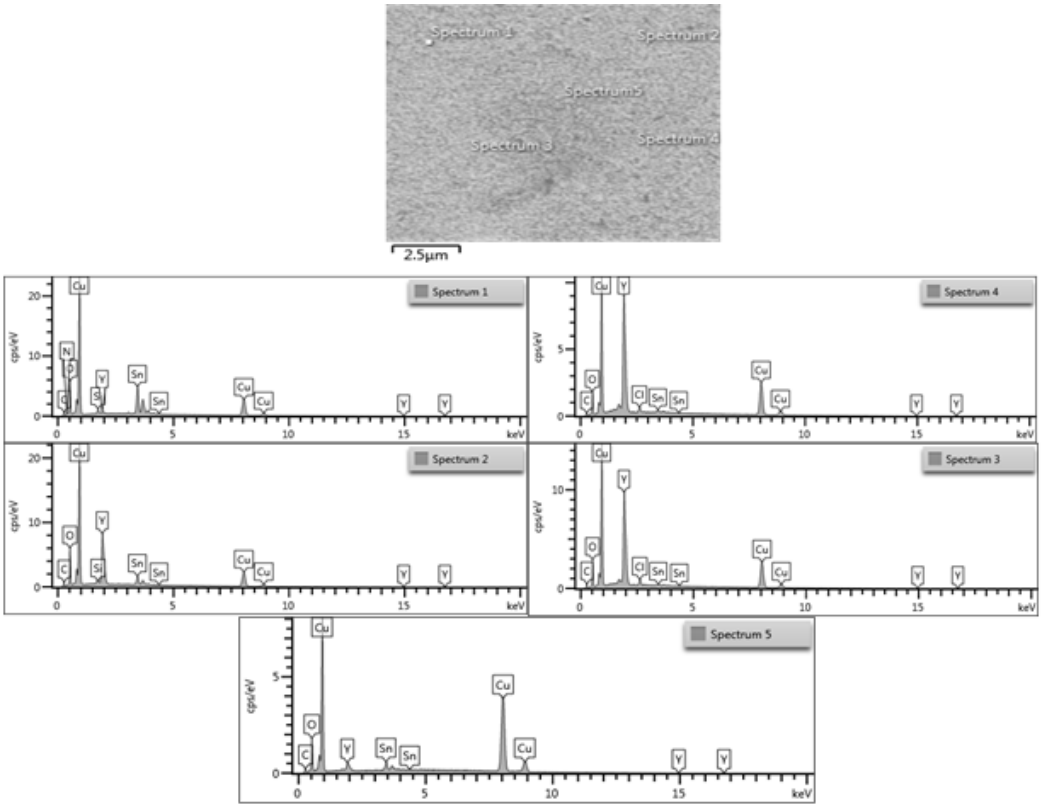

Fig. S5b. Spot EDX analysis of Y_2CuO_4-5CuO composite thin films at five different places.

Table S1. Metal-Metal distances (Å) for **1**

Y(1)-Y(2)	3.8342(7)
Y(1)-Cu(1)	3.3925(8)
Y(1)-Cu(2)	3.3497(7)
Y(1)-Cu(3)	3.5611(7)
Y(1)-Cu(6)	3.3093(7)
Y(2)-Cu(3)	3.3616(7)
Y(2)-Cu(4)	3.4143(7)
Y(2)-Cu(5)	3.3479(7)
Y(2)-Cu(6)	3.6182(7)