

##Supplementary Information##

**Synthesis and Characterization of  
Hexanuclear Copper-Yttrium Complex for  
Disposal to Semiconducting  $\text{CuYO}_2\text{-}0.5\text{Cu}_2\text{O}$   
Composite Thin Films<sup>†</sup>**

Cite this: DOI: 10.1039/x0xx00000x

Received 00th January 2012,  
Accepted 00th January 2012

DOI: 10.1039/x0xx00000x

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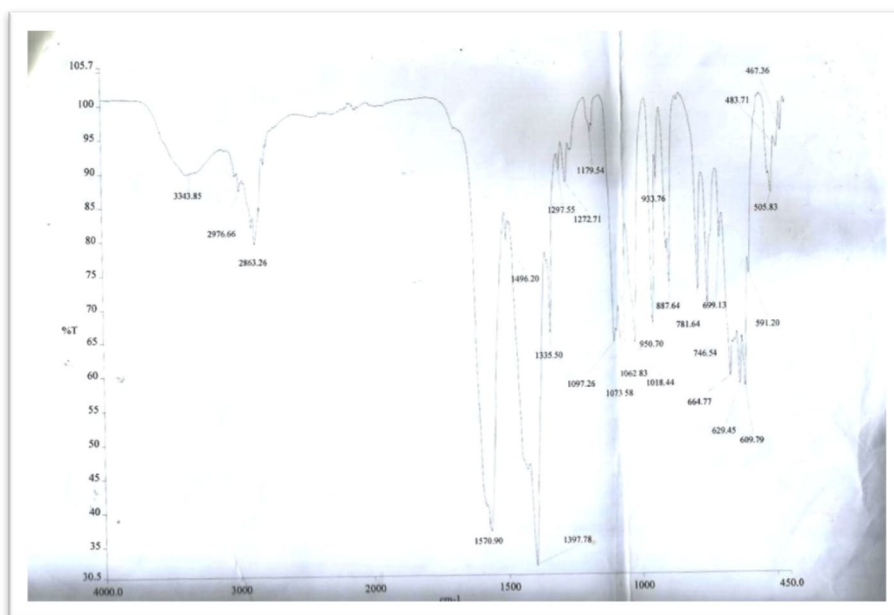
Sohail <sup>\*</sup>Ahmed,<sup>a</sup> Muhammad Adil Mansoor,<sup>a</sup> Wan Jeffrey Basirun,<sup>a,b</sup> Mehran Sookhakian,<sup>c</sup> Huang Nay Ming,<sup>c</sup> LO Kong Mun,<sup>a</sup> Tilo Söhnel,<sup>d,e</sup> Zainudin Arifin,<sup>a</sup> Muhammad Mazhar,

**Table S1.** Detail of crystal data of **1**.

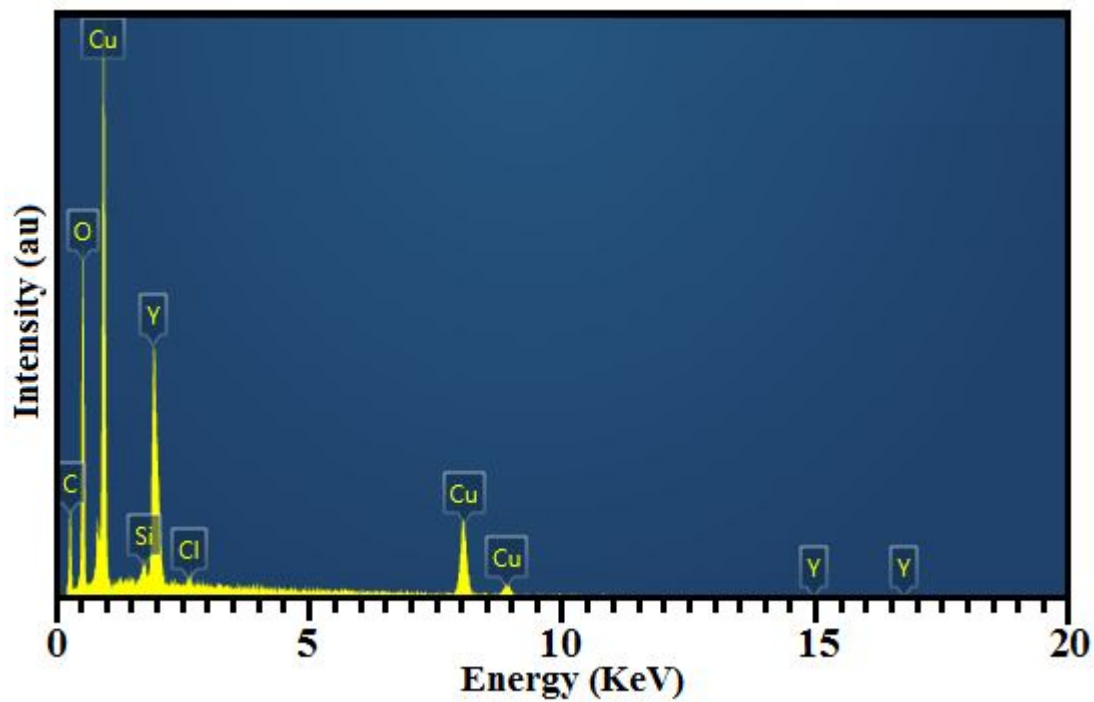
Chemical formula	$\text{Y}_2 \text{Cu}_4 \text{C}_{53.70} \text{H}_{103.55} \text{N}_6 \text{O}_{23.85}$
$M$ (g mol <sup>-1</sup> )	1646.95
Temperature (K)	100(2)
Crystal size (mm)	0.32×0.34×0.35
Crystal color, habit	blue blocks
Crystal system	Triclinic
Space group	<i>P</i> -1
$a$ (Å)	9.4934(3)
$b$ (Å)	13.2045(4)
$c$ (Å)	14.6990(5)
$\alpha$ (°)	76.486(2)
$\beta$ (°)	85.811(2)
$\gamma$ (°)	83.394(2)
$V$ (Å <sup>3</sup> )	1777.66(10)
$Z$	1
$D_c$ (mg m <sup>-3</sup> )	1.538
$\mu$ (mm <sup>-1</sup> )	2.863
$F(000)$	853

$\Theta$ range (deg)	1.43 to 27.99
$h$ range	-12/12
$k$ range	-17/17
$l$ range	-19/19
no. refls. (independent)	42393 (8530)
no. parameters	437
$R_{\text{int}}$	0.0461
$R_1$ (obs.)	0.0277
$wR_2$ (all data)	0.0720
$S$	1.029

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**Figure S1:** FT-IR spectrum of complex [Cu<sub>4</sub>Y<sub>2</sub>(dmae)<sub>6</sub>(OAc)<sub>7.85</sub>(OH)<sub>0.15</sub>(H<sub>2</sub>O)<sub>2</sub>].2CH<sub>3</sub>C<sub>6</sub>H<sub>5</sub> (**1**)



**Figure S2:** EDX of  $\text{CuYO}_2\text{-}0.5\text{Cu}_2\text{O}$  thin film fabricate from (1) at  $400^\circ\text{C}$ .