

## Electronic Supplementary Material

### Synthesis, Characterization, Thermal Properties and Antiproliferative Potential of Copper(II) 4'-phenyl-terpyridine Compounds

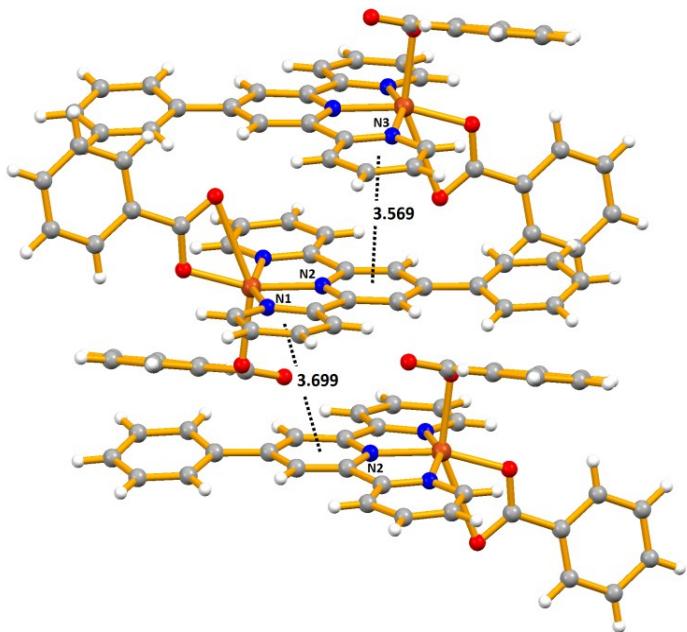
Zhen Ma,<sup>a,b</sup> \* Bian Zhang,<sup>a</sup> M. Fátima C. Guedes da Silva,<sup>b</sup> \* Joana Silva,<sup>c</sup> Ana Soraia Mendo,<sup>c</sup>

Pedro Viana Baptista,<sup>c</sup> Alexandra R. Fernandes,<sup>b,c</sup> \* Armando J.L. Pombeiro<sup>b</sup>

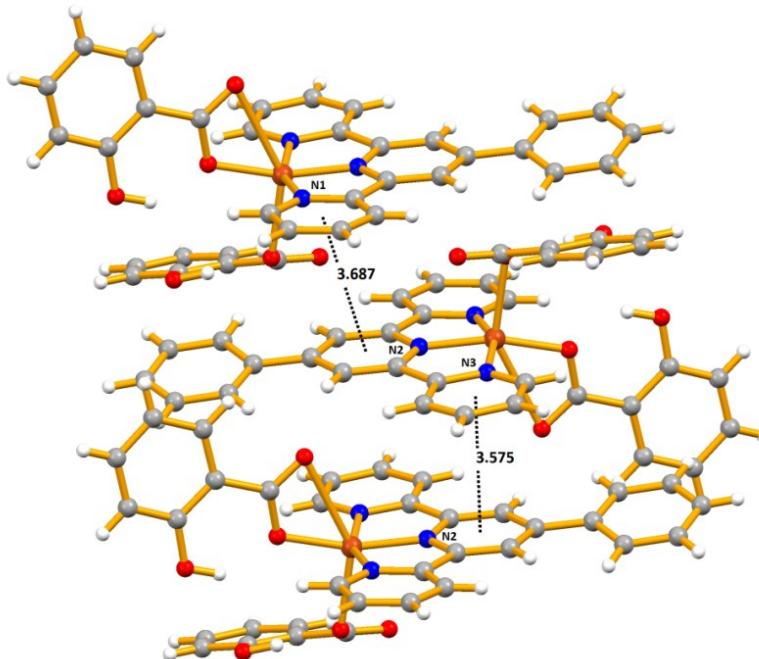
<sup>a</sup> Guangxi Key Laboratory of Petrochemical Resource Processing and Process Intensification Technology, School of Chemistry and Chemical Engineering, Guangxi University, Nanning 530004, P. R. China, mzmzfl0090@sina.com

<sup>b</sup> Centro de Química Estrutural, Complexo I, Instituto Superior Técnico, Universidade de Lisboa, Av. Rovisco Pais, 1049-001, Lisboa, Portugal, E-mail: fatima.guedes@tecnico.ulisboa.pt

<sup>c</sup> UCIBIO, Departamento de Ciências da Vida, Faculdade de Ciências e Tecnologia, Universidade Nova de Lisboa, Caparica, Portugal, E-mail: ma.fernandes@fct.unl.pt



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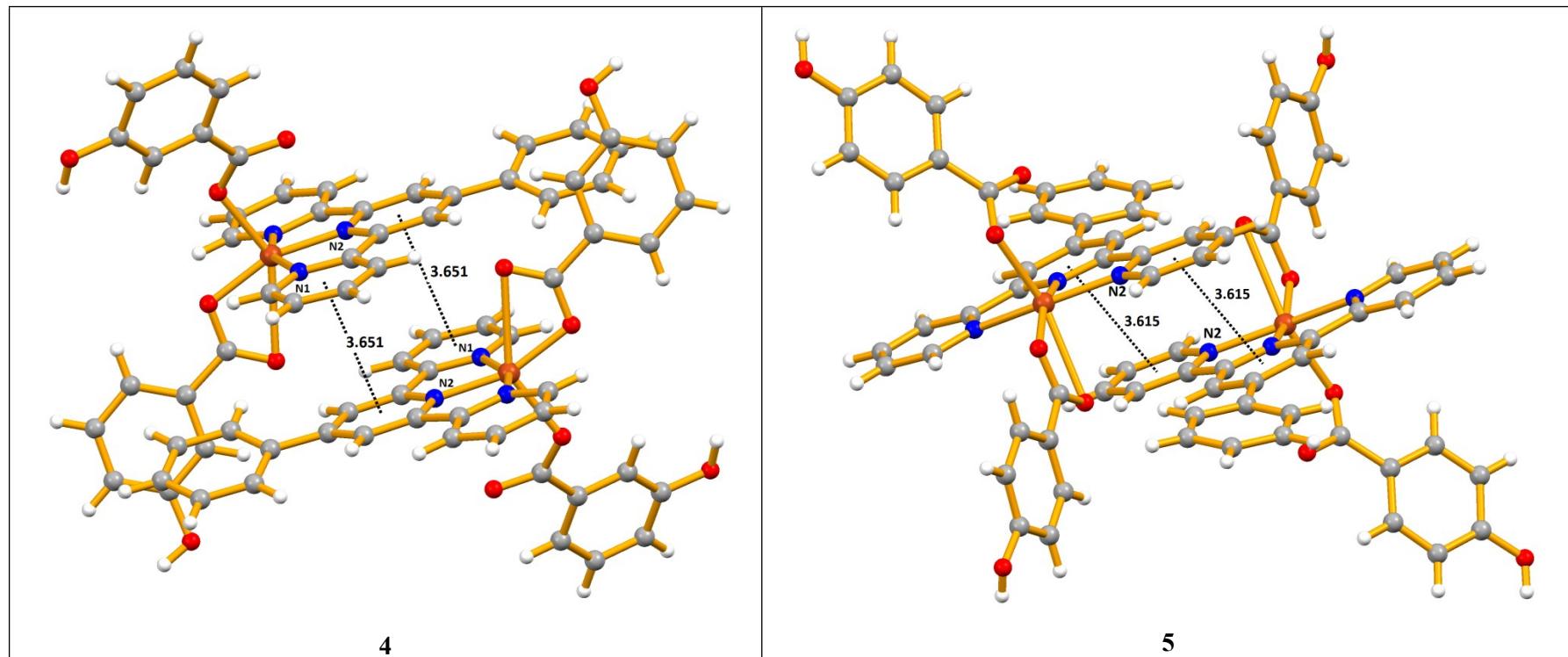


Figure S1 - Fragment of the crystal packing diagrams of **2 – 5** showing the  $\pi \cdots \pi$  interactions between the pyridyl rings.

Table S1. Hydrogen bond geometry [ $\text{\AA}$ ,  $^\circ$ ] in **1** and **3 – 5**.

D–H $\cdots$ A	$d(\text{H}\cdots\text{A})$	$d(\text{D}\cdots\text{A})$	$\angle(\text{D–H}\cdots\text{A})$	Symmetry codes
<b>1</b>				
O1–H1A $\cdots$ O6	1.90	2.741(2)	172	-1+x,y,-1+z
O1–H1B $\cdots$ O5	2.02	2.852(2)	165	x,1/2-y,-1/2+z
O2–H2A $\cdots$ O8	1.93	2.680(2)	146	-1+x,y,-1+z
O2–H4B $\cdots$ O4	1.78	2.616(2)	166	<i>intra</i>
<b>3</b>				
O5–H5O $\cdots$ O3	1.82(4)	2.584(3)	139(4)	<i>intra</i>
O6–H6O $\cdots$ O1	1.68(3)	2.549(3)	160(5)	<i>intra</i>
<b>4</b>				
O5–H5O $\cdots$ O7	1.82(3)	2.723(2)	174(3)	1-x,-y,-z
O6–H6O $\cdots$ O2	1.73(2)	2.601(2)	166(2)	-1+x,-1+y,z
O7–H7O $\cdots$ O1	1.87(3)	2.747(2)	166(2)	
<b>5</b>				
O5–H5E $\cdots$ O3	1.87	2.671(2)	165	1-x,1/2+y,1/2-z
O6–H16E $\cdots$ O4	1.77	2.618(3)	176	-x,-1/2+y,1/2-z

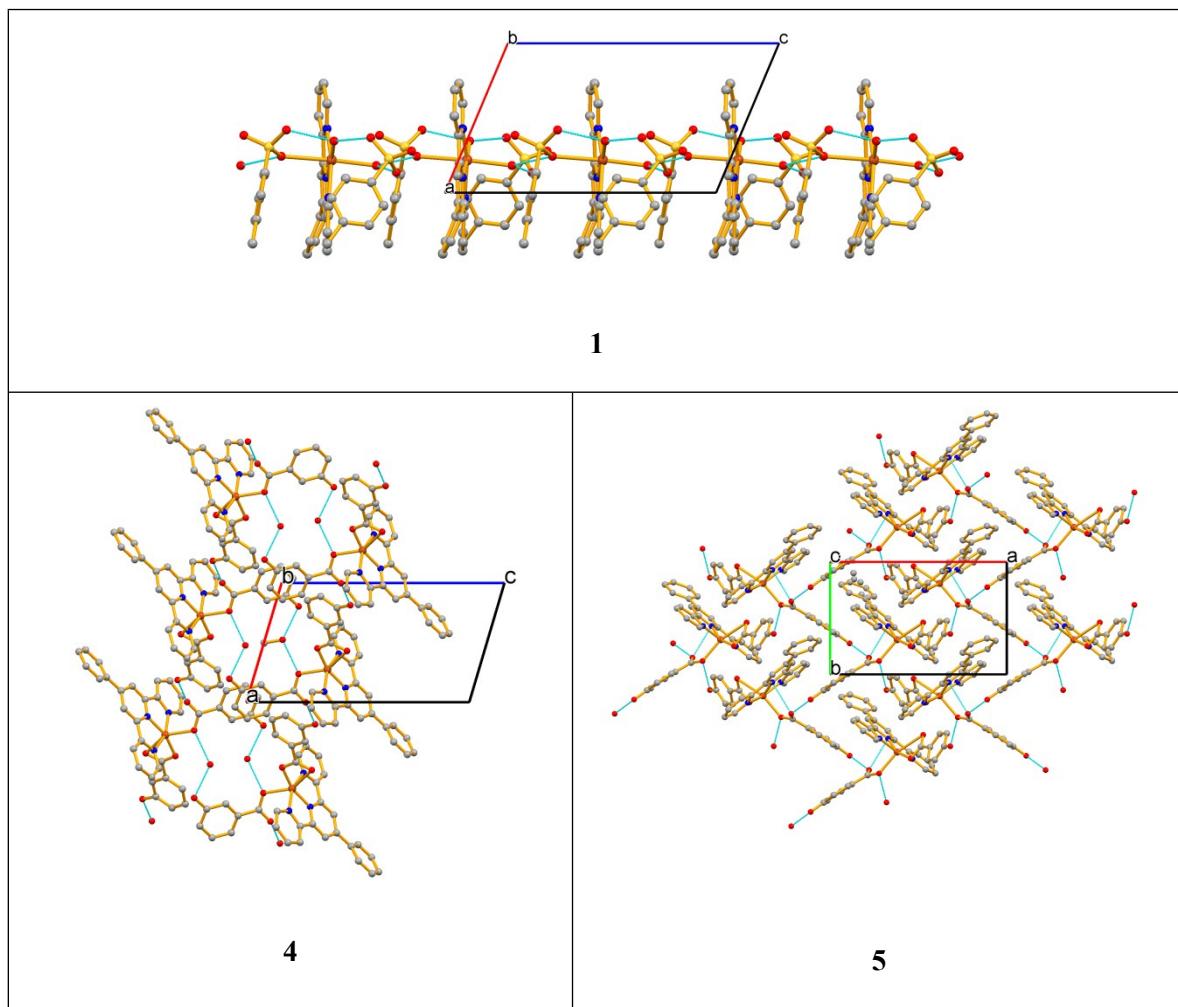


Figure S2 – Hydrogen bond interactions (in dashed light blue lines) leading to infinite one-dimensional chains (in compounds **1** and **4**) and to an infinite two-dimensional network (in compound **5**).

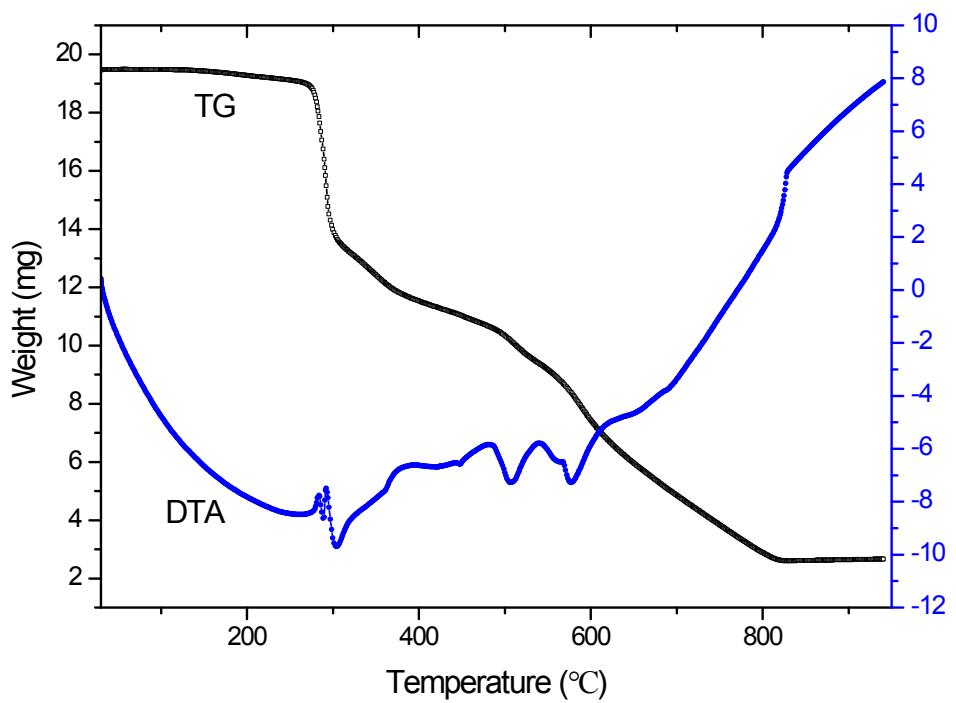


Figure S3 – Thermal analyses (TG and DTA plots) for complex 3.

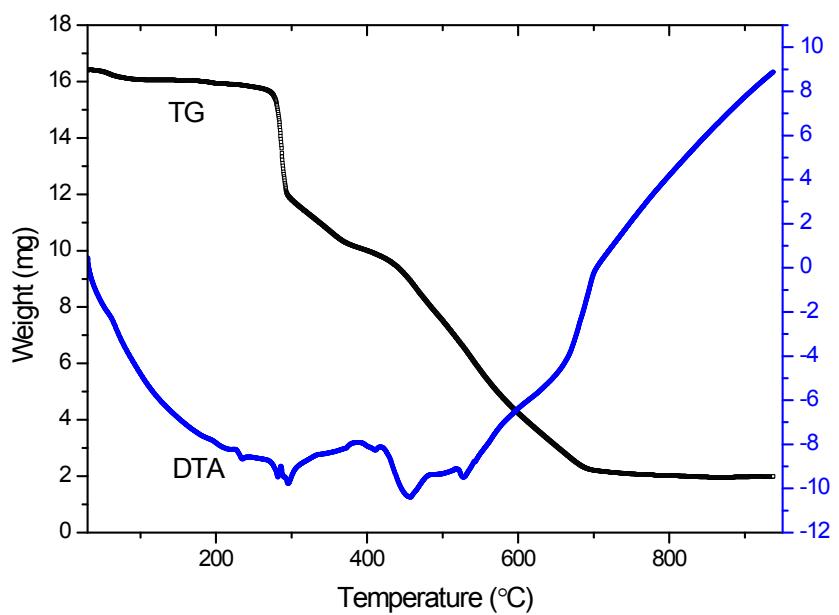


Figure S4 – Thermal analyses (TG and DTA plots) of complex 4.

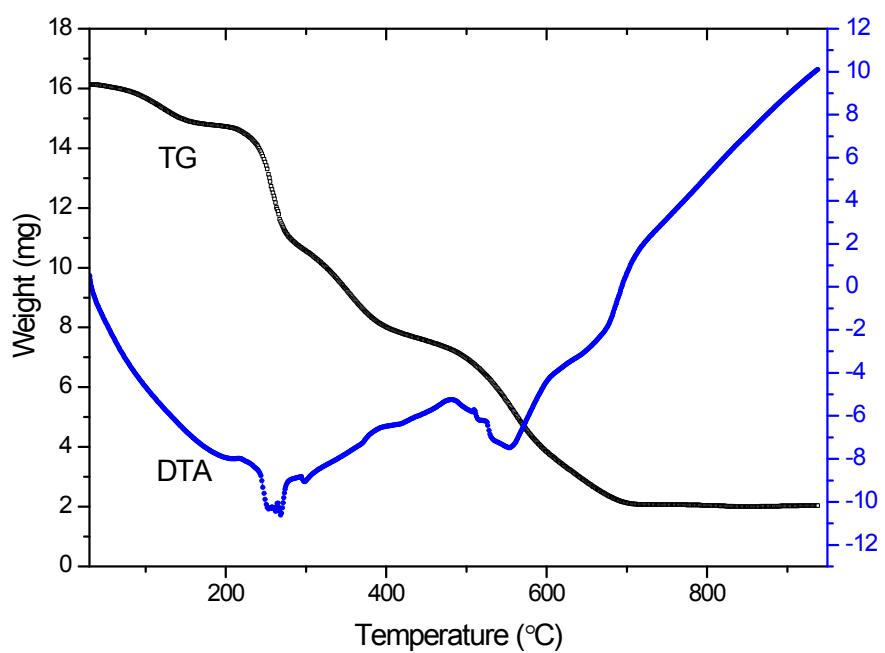


Figure S5 – Thermal analyses (TG and DTA plots) of complex **5**.

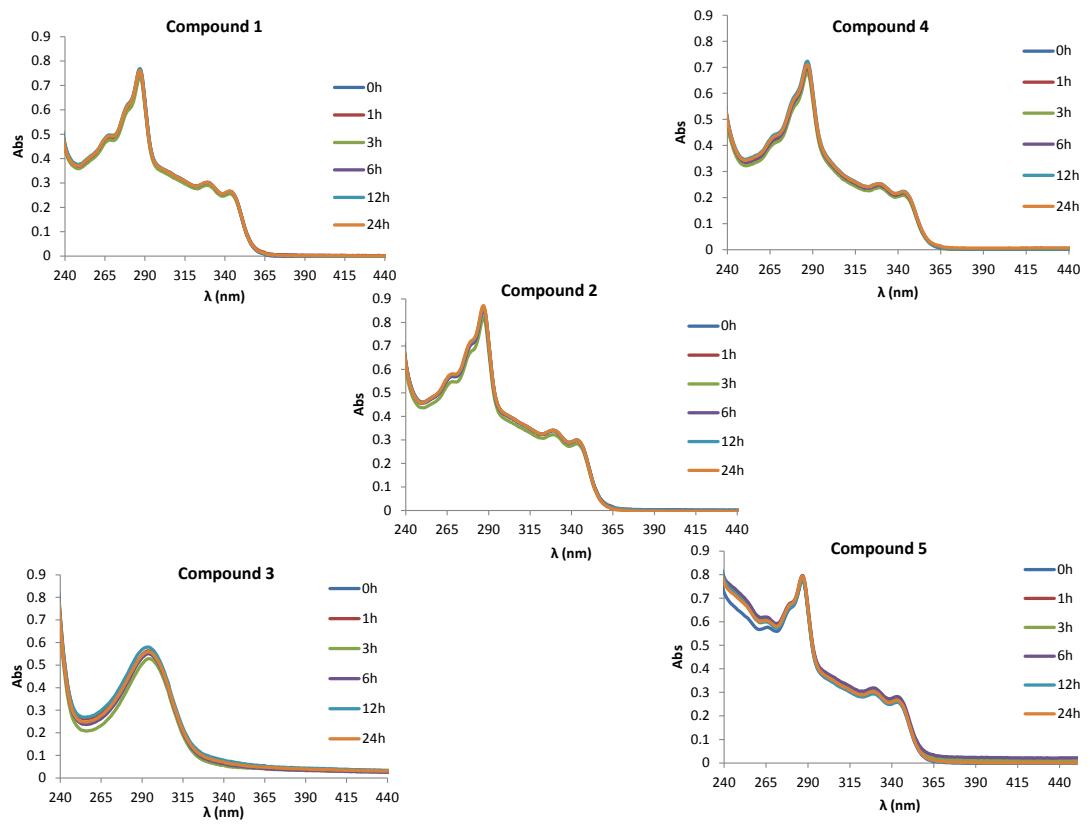
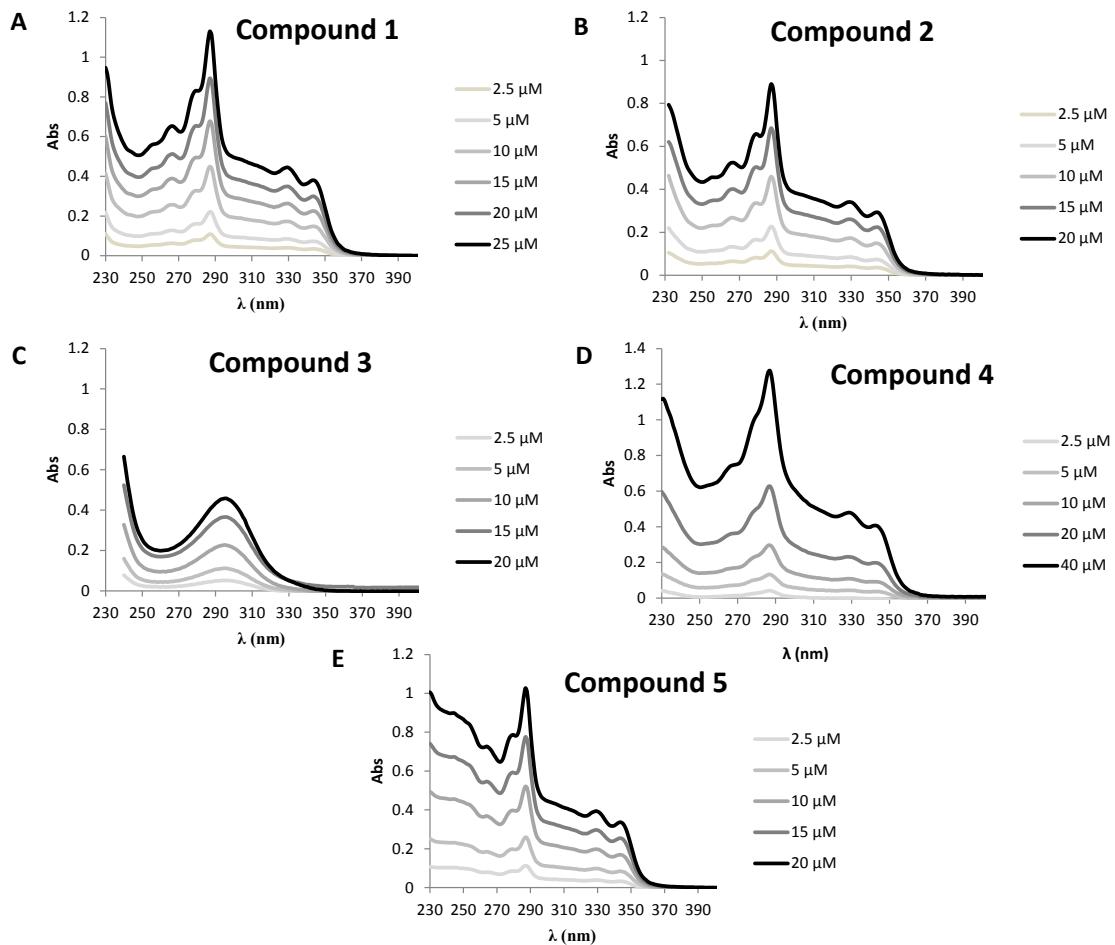


Figure S6- UV spectra of compounds **1-5** incubated ( $20 \mu\text{M}$ ) for 1, 3, 6, 12 and 24 h in PBS at  $37^\circ\text{C}$ .



**Figure S7-** UV spectra of increasing concentrations of compounds **1-5** (2.5 - 40  $\mu$ M) incubated for 24 h in buffer 5 mM Tris-HCl, 50 mM NaCl (pH 7.2) at 37 °C. Spectra were used for calculating  $\epsilon_f$ , the extinction coefficient for the free compound.