



## Two Novel Complexes: Crystal Structures and Inhibiting Human Osteogenic Sarcoma Cells

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**SUMMARY.** Two new metal-organic coordination polymers, namely  $[\text{Cu}_2(\text{o-cpia})(\text{OH})(\text{bpy})_{0.5}]_n$  (**1**) and  $[\text{Cd}_{1.5}(\text{o-cpia})(\text{bmib})(\text{H}_2\text{O})_2]_n$  (**2**) have been synthesized using an ether bridged tricarboxylic acid ligand, o-cpiaH<sub>3</sub> (5-(2-carboxy-phenoxy)-isophthalic acid). In complex **1**, the pentameric building unit is connected by the o-cpia<sup>3-</sup> ligand to afford a 2D layer, which is further connected by the bpy ligand to afford a (4,10)-connected net. For complex **2**, the o-cpia<sup>3-</sup> ligand connects with linear trimeric unit in the *ab* plane to form the layer, which is pillared by the flexible N-donor ligand along the *c* axis to give rise to a **tfz-d** type (3,8)-connected net. Furthermore, the *in vivo* anticancer activity of complexes **1** and **2** was evaluated via the MTT assay against human osteogenic sarcoma cells (MG63, U2OS and 143B).

**RESUMEN.** Dos nuevos polímeros de coordinación metalorgánicos, a saber  $[\text{Cu}_2(\text{o-cpia})(\text{OH})(\text{bpy})_{0.5}]_n$  (**1**) y  $[\text{Cd}_{1.5}(\text{o-cpia})(\text{bmib})(\text{H}_2\text{O})_2]_n$  (**2**) se han sintetizado usando un ligando de ácido tricarbóxico puenteado con éter, o-cpiaH<sub>3</sub> (ácido 5-(2-carboxi-fenoxi)-isofáltico). En el complejo **1**, la unidad de construcción pentamérica está conectada por el ligando o-cpia<sup>3-</sup> para proporcionar una capa 2D, que además está conectada por el ligando bpy para proporcionar una red (4,10) conectada. Para el complejo **2**, el ligando o-cpia<sup>3-</sup> se conecta con la unidad trimérica lineal en el plano *ab* para formar la capa, que es apoyada por el ligando donante de N flexible a lo largo del eje *c* para dar lugar a un tipo **tfz-d** (3,8)-conectado neto. Además, la actividad anticancerígena *in vivo* de los complejos **1** y **2** se evaluó mediante el ensayo de MTT frente a células de sarcoma osteogénico humano (MG63, U2OS y 143B).

**KEY WORDS:** coordination compounds, osteogenic sarcoma, X-ray.

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