

Two Novel Co(II) and Eu(III) Coordination Polymers: Crystal Structure and Anti-Cancer Activity in Cervical Cancer

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SUMMARY. Two new coordination polymers, namely $[\text{Co}(\text{cbda})(\text{bpy})(\text{H}_2\text{O})]_n$ (**1**, H_2cbda = cyclobutane-1,1'-dicarboxylic acid) and $[\text{Eu}_2(\text{cbda})_3(\text{H}_2\text{O})_2]_n$ (**2**) have been successfully prepared by reaction of H_2cbda with different metal ions in the presence or absence 4,4'-bipyridine (bpy) ligands and their structures have been characterized by single crystal X-ray crystallography. In addition, *in vitro* anticancer activity of compounds **1** and **2** on three human cervical cancer cell lines (HeLa, SiHa and C33A) was further determined.

RESUMEN. Dos nuevos polímeros de coordinación, a saber $[\text{Co}(\text{cbda})(\text{bpy})(\text{H}_2\text{O})]_n$ (**1**, H_2cbda = ciclobutano-1,1'-ácido dicarboxílico) y $[\text{Eu}_2(\text{cbda})_3(\text{H}_2\text{O})_2]_n$ (**2**) se han preparado con éxito por reacción de H_2cbda con diferentes iones metálicos en presencia o ausencia de ligandos 4,4'-bipiridina (bpy) y sus estructuras se han caracterizado por cristalografía de rayos X de cristal único. Además, se determinó la actividad anticancerígena *in vitro* de los compuestos **1** y **2** en tres líneas celulares humanas de cáncer de cuello uterino (HeLa, SiHa y C33A).

KEY WORDS: anticancer activity, coordination polymers, X-ray diffraction.

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