

Two Novel Coordination Polymers $\{[\text{Cu}_2(\text{DCTP})_2](\text{H}_2\text{O})\}_n$ and $\{[\text{Zn}_3(\text{NTB})_2(\text{bipy})_2]_n(\text{DMF})_3\}_n$: Inhibiting Growth of Human Glioma Cells

Li CAO, Mei JIN & Yanping DAI *

Department of neurology, Nangang Branch of Heilongjiang Provincial Hospital,
Harbin, Heilongjiang, China

SUMMARY. Two new coordination polymer, namely $\{[\text{Cu}_2(\text{DCTP})_2](\text{H}_2\text{O})\}_n$ (**1**, H_2DCTP = 4'-(3,5-dicarboxyphenyl)-4,2':6',4''-terpyridine) and $\{[\text{Zn}_3(\text{NTB})_2(\text{bipy})_2]_n(\text{DMF})_3\}_n$ (**2**, H_3NTB = 4,4',4''-nitrotribenzoic acid, bipy = 2,2'-bipyridine) have been successfully constructed under solvothermal conditions. The structures of the two complexes have been successfully determined by single crystal X-ray diffraction. In addition, *in vitro* antitumor activity of compounds **1** and **2** on four human glioma cell lines (U521, U373, U172 and LN-18) was further determined and the results show that the two compounds showed promising activity.

RESUMEN. Dos nuevos polímeros de coordinación, a saber $\{[\text{Cu}_2(\text{DCTP})_2](\text{H}_2\text{O})\}_n$ (**1**, H_2DCTP = 4'-(3,5-dicarboxifenil)-4,2':6',4''-terpiridina) y $\{[\text{Zn}_3(\text{NTB})_2(\text{bipy})_2]_n(\text{DMF})_3\}_n$ (**2**, H_3NTB = 4,4',4''-ácido nitrilotribenzoico, bipi = 2,2'-bipiridina) se han construido con éxito en condiciones solvotermales. Las estructuras de los dos complejos se han determinado con éxito mediante difracción de rayos X de cristal único. Además, se determinó la actividad antitumoral *in vitro* de los compuestos **1** y **2** en cuatro líneas celulares de glioma humano (U521, U373, U172 y LN-18) y los resultados muestran que los dos compuestos mostraron actividad prometedora.

KEY WORDS: Coordination polymer, X-ray diffraction, glioma cells

* Author to whom correspondence should be addressed. *E-mail:* daiyanpingat@163.com