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Crystal Structure and Anesthesia Activity Evaluation of Two Novel Phosphotungstate Complexes

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SUMMARY. Two novel compounds based on phosphotungstate, $[Ag(OH)(L_1)]\{Ag(L_1)_6\{P_2W_{18}O_{62}\}\}\cdot H_2O$ (L_1 = pyrazine) (**1**) and $(Ag(L_2)_2)_4\{[Ag(L_2)_2]_2[P_2W_{18}O_{62}]\}$ ($L_2 = C_3H_4N$) (**2**), have been hydrothermally synthesized and characterized by single-crystal X-ray diffraction. In addition, *in vitro* anesthesia activity of compounds **1** and **2** was further determined by a pain model acetic acid-induced writhing. The results reveal that they exhibit potent inhibition ratio, which is even better that of the reference drugs.

RESUMEN. Dos nuevos compuestos basados en fosfotungstato, $[Ag(OH)(L_1)]\{Ag(L_1)_6\{P_2W_{18}O_{62}\}\}\cdot H_2O$ (L_1 = pirazina) (**1**) y $(Ag(L_2)_2)_4\{[Ag(L_2)_2]_2[P_2W_{18}O_{62}]\}$ ($L_2 = C_3H_4N$) (**2**), se han sintetizado hidrotérmicamente y caracterizado por difracción de rayos X de cristal único. Además, la actividad anestésica *in vitro* de los compuestos **1** y **2** se determinó adicionalmente mediante un modelo de dolor con retorcimiento inducido por ácido acético. Los resultados revelan que exhiben una potente relación de inhibición, que es incluso mejor que la de los medicamentos de referencia.

KEY WORDS: anesthesia activity, phosphotungstate, X-ray diffraction.

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