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# Therapeutic Effect of a New Cd(II)-based Coordination Polymer on Liver Cirrhosis by Inhibiting Hepatocyte Fibrosis

Junyin YANG, Tingting ZHU &, Yuliang JI *

*Department of Gastroenterology, China Coast Guard Hospital of the People's Amred Police Force, Jiaxing 314000, China*

***SUMMARY.*** **A novel coordination polymer, [CdL($H_2O$)$_2$$H_2O$] (1), in which $L^{2-}$ are the fully deprotonation ions of the $H_2L$ [$H_2L$ = (4-nitrobenzyl)phosphonic acid ligand)], was successfully prepared through solvothermal reaction and completely characterized by EA, SCXRD, PXRD, and Fourier transform infrared spectroscopy with TGA. Its therapeutic application against liver cirrhosis was discussed, and the associated mechanism was researched. The extracellular matrix deposition in the liver was examined by RT-PCR, and the inflammatory cytokines released into the liver was tested by ELISA.**

***RESUMEN.*** Un nuevo polímero de coordinación, [CdL($H_2O$)$_2$ $H_2O$] (**1**), en el que L2- son los iones completamente desprotonados del $H_2L$ [$H_2L$ = ligando de ácido (4-nitrobencil)fosfónico)], se preparó con éxito a través de una reacción solvotérmica y completamente caracterizado por EA, SCXRD, PXRD y espectroscopia infrarroja transformada de Fourier con TGA. Se discutió su aplicación terapéutica contra la cirrosis hepática y se investigó el mecanismo asociado. La deposición de matriz extracelular en el hígado se examinó mediante RT-PCR y las citocinas inflamatorias liberadas en el hígado se analizaron mediante ELISA.

*KEY WORDS:* coordination polymer, hepatocyte fibrosis, liver cirrhosis,

* Author to whom correspondence should be addressed. *E-mail:* a232887334@163.com

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