



## Synthesis and Anti-Inflammatory Activity Against Myocarditis of a New Ca(II)-Based Coordination Compound

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**SUMMARY.** A new Ca(II)-based three-dimensional coordination polymer  $\{[Ca_3(L)(DMF)](H_2O)_2\}_n$  (**1**,  $H_3L = 3,3',3''$ -[1,3,5-benzenetriyltris(carbonylimino)] trisbenzoic acid) has been successfully synthesized under solvothermal condition and characterized by elemental analysis, thermal analysis, powder X-ray diffraction and single-crystal X-ray diffraction. The structure of complex **1** consists of linear Ca<sub>3</sub> secondary building units that connected by a C<sub>3</sub>-symmetric ligand, resulting in a 2-nodal 4,8-connected **flu/fluorite** net with point symbol  $\{4^4 12.6^4 12.8^4\}\{4^6\}_2$ . The experimental results of anti-inflammatory activity showed that compared with organic ligand H<sub>3</sub>L, the title Ca(II) coordination compound **1** exerted rather potent activity.

**RESUMEN.** Un nuevo polímero de coordinación tridimensional basado en Ca(II)  $\{[Ca_3(L)(DMF)](H_2O)_2\}_n$  (**1**,  $H_3L = 3,3',3''$ -[1,3,5-benzenetriyltris(carbonilimino)] ácido trisbenzoico) se ha sintetizado con éxito bajo condiciones solvotérmicas y caracterizado por análisis elemental, análisis térmico, difracción de rayos X en polvo y difracción de rayos X monocristal. La estructura del complejo **1** se compone de unidades de construcción secundaria lineales de Ca<sub>3</sub> conectados por un ligando C<sub>3</sub>-simétrico, lo que resulta en una red 2-nodal de **flu/fluorita** 4,8-conectada con el símbolo  $\{4^4 12.6^4 12.8^4\}\{4^6\}_2$ . Los resultados experimentales de la actividad anti-inflamatoria mostraron que el compuesto de coordinación **1** de Ca(II) ejerce una actividad más potente, en comparación con el ligando orgánico H<sub>3</sub>L.

**KEY WORDS:** anti-inflammatory, coordination polymer, X-ray diffraction.

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