

Application Value of Two Coordination Polymers (Cps) on Pelvic Organ Prolapse by Regulating Estrogen and Genes Expression

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SUMMARY. Two new three-dimensional (3D) coordination polymers (CPs), named $[Zn_3(L1)_2(CH_3OH)_2 \cdot 2(NMF)]$ (1) and $[Mg_3(L2)_2(H_2O)_4 \cdot H_2O]$ (2) [H_3L1 : 4,4',4''-((1,3,5-triazine-2,4,6-triyl)tris(azanediyl))tribenzoic acid; H_3L2 : 4,4',4''-((benzene-1,3,5-tricarbonyl)tris(azanediyl))tribenzoic acid; NMF: N-methylformamide], have been synthesized via the solvothermal reactions. Two CPs have been well systemically characterized. In biological research, the content of estrogen in the plasma was determined with ELISA assay. In addition to this, the expression of elastic fiber-related genes Fibulin-5 and lysyl oxidase-like 1 (LOXL1) in pelvic floor connective tissue was further measured with real time RT-PCR assay.

RESUMEN. Dos nuevos polímeros de coordinación (CP) tridimensionales (3D), denominados $[Zn_3(L1)_2(CH_3OH)_2 \cdot 2(NMF)]$ (1) y $[Mg_3(L2)_2(H_2O)_4 \cdot H_2O]$ (2) [H_3L1 : ácido 4,4',4''-((1,3,5-triazina-2,4,6-triil)tris(azanodiil))tribenzoico; H_3L2 : ácido 4,4',4''-((benceno-1,3,5-tricarbonil)tris(azanodiil))tribenzoico; NMF: N-metilformamida], se han sintetizado mediante reacciones solvotérmicas. Dos CP han sido bien caracterizados sistémicamente. En la investigación biológica, el contenido de estrógeno en el plasma se determinó con el ensayo ELISA. Además de esto, la expresión de los genes relacionados con la fibra elástica Fibulin-5 y lysyl oxidase-like 1 (LOXL1) en el tejido conectivo del piso pélvico se midió además con el ensayo RT-PCR en tiempo real.

KEY WORDS: coordination polymers (CPs), ELISA assay, pelvic organ prolapse.

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