

1, 3, 5-三咪唑基苯-醋酸锌配合物的合成、结构和离子交换性质研究

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摘要 报道了一个由新型三角架配体1,3,5-三咪唑基苯(L)与Zn(CH₃COO)₂·2H₂O组装得到的配合物: [Zn(L)₂(H₂O)₂](CH₃COO)₂·2H₂O (1), 用X射线单晶衍射法测定了配合物的晶体结构, 该晶体属单斜晶系, 空间群P2₁/n, 晶胞参数a = 0.8339(1) nm, b = 1.2209(2) nm, c = 1.7565(3) nm, β = 94.880(3)°, D_c = 1.383 g/cm³, μ = 1.505 mm⁻¹, F(000) = 1560, R₁ = 0.0429, wR₂ = 0.0713。配合物1具有二维层状结构, 醋酸根阴离子位于层与层之间的孔道中, 并且可以被硝酸根离子交换。

关键词 [锌络合物](#) [离子交换](#) [晶体结构](#) [咪唑](#) [P](#) [X射线衍射分析](#)

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Synthesis, Structure and Ion-exchange Property of Zinc(II) Complex with a Novel Tripodal Ligand 1,3,5-Tris(1-imidazolyl) benzene

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Abstract A novel zinc(II) complex [Zn(L)₂(H₂O)₂](CH₃COO)₂·2H₂O (1) was obtained by self-assembly of tripodal ligand 1,3,5-tris(1-imidazolyl)benzene (L) with Zn(CH₃COO)₂·2H₂O. The structure of the complex was determined by X-ray diffraction analysis. Crystal data for 1 monoclinic, P2₁/n, a = 0.8339(1) nm, b = 1.2209(2) nm, c = 1.7565(3) nm, β = 94.880(3)°, Z = 2, V = 1.7819(5) nm³, D_c = 1.383 g/cm³, μ = 1.505 mm⁻¹, F(000) = 1560, R₁ = 0.0429, wR₂ = 0.0713. The complex has two-dimensional network structure. The acetate anions occupy the vacancy between the 2D layers and can be exchanged by other anions such as nitrate.

Key words [ZINC COMPLEX](#) [ION EXCHANGING](#) [CRYSTAL STRUCTURE](#) [GLYOXALINE P](#) [XRD](#)

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