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论文

新的吡啶基硫醚苯甲酸的原位合成及其铜配合物

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摘要:

在氧化铜和溴化铜存在的条件下, 4-[1,2-(2-吡啶基)亚甲硫基]-苯甲酸(L′)经原位消去反应, 形成了一个新的有机配体4-[1,2,2-(2-吡啶基)-(2-吡啶亚甲基)亚甲硫基]-苯甲酸(L), 并与铜形成配位聚合物$[Cu_2(L)Br_2]_n$(1){L=4-[1,2,2-(2-吡啶基)-(2-吡啶亚甲基)亚甲硫基]-苯甲酸}, 通过红外光谱、元素分析和X射线单晶衍射等手段对其结构进行了表征.

关键词: 吡啶基硫醚苯甲酸原位合成; 配位聚合物; 晶体结构

In Situ Synthesis of 4-[(2-Pyridin-2-yl)-1-(pyridin-2-yl)vinylthio]benzoic Acid and Its Copper Complex

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Abstract:

In situ metal/ligand reactions have been investigated for decades and turn out to be efficient for discovery of new organic reactions and coordination compounds with novel topology and functionalities. 4-[(2-Pyridin-2-yl)-1-(pyridin-2-yl)vinylthio]benzoic acid(L) was *in situ* generated in solvethermal condition with CuO and $CuBr_2$. A copper coordination polymer$[Cu_2(L)Br_2]_n$(1) was obtained synchronously and characterized by X-ray single crystal diffraction, elemental analysis and FTIR spectrum. The Cu^+ ions were bridged into a tetranuclear cluster by μ_3-Br and μ_2-Br ions, and the clusters were further linked into 1D ribbon-like chain. The intermolecular in situ elimination is rare but meaningful in the synthesis of organic compounds.

Keywords: *In situ* synthesis of 4-[(2-pyridin-2-yl)-1-(pyridin-2-yl)vinylthio]benzoic acid; Coordination polymer; Crystal structure

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