One-dimensional Coordination Polymers of Cadmium Thiolates with 4,4′-Trimethylenebipyridine Ligands

Chao Xu, Fang-Hui Wu, Taike Duan, and Qian-Feng Zhang

a Institute of Molecular Engineering and Applied Chemistry, Anhui University of Technology, Ma’anshan, Anhui 243002, P. R. China
b State Key Laboratory of Coordination Chemistry, Nanjing University, Nanjing 210009, P. R. China

Reprint requests to Dr. Qian-Feng Zhang. Fax: +86-555-2312041. E-mail: zhangqf@ahut.edu.cn

Z. Naturforsch. 2009, 64b, 805–808; received February 11, 2009

Hydrothermal reactions of Cd(SAr)2 with 4,4′-trimethylenebipyridine (tmdp) at 145 °C yielded new complexes, [Cd(SAr)2(tmdp)2]n (Ar = Ph, 1, C6H4Me-4, 2), which are one-dimensional wave-like coordination polymers with distorted tetrahedral CdN2S2 coordination environments. The thermal stability of the two complexes was studied by thermal gravimetric (TG) and differential thermal analyses (DTA).

Key words: Cadmium(II), 4,4′-Trimethylenebipyridine, Thiolate, Coordination Polymer, Crystal Structure