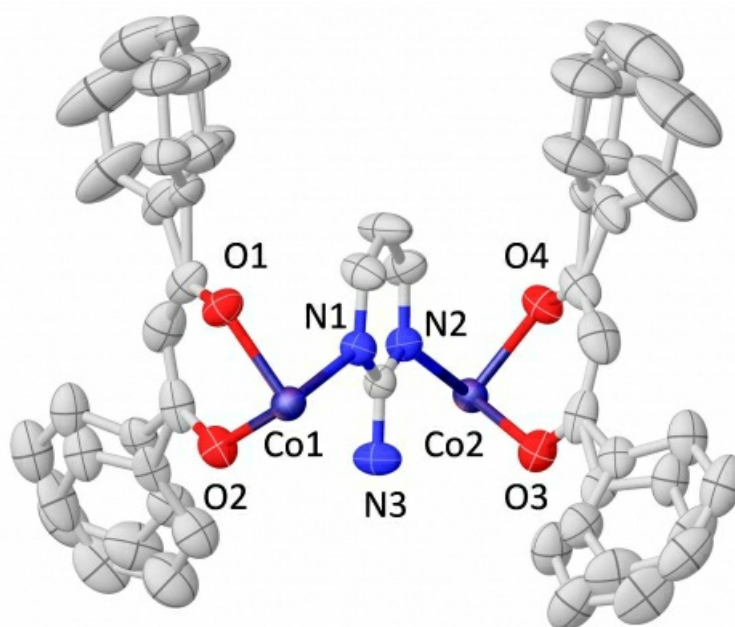


*Co(II)- dbm and apm complexes, chemical and biological activities*Supakorn Boonyuen¹, Sukanya Mingphimai¹, Natthakorn Phadungsak¹, Kittipong Chainok², Pariya Na Nakorn³¹Department Of Chemistry, Faculty Of Science And Technology, Thammasat University, Patumthani, Thailand, ²Materials Innovation and Technology, Department of Physics, Faculty of Science and Technology, Thammasat University, Pathum Thani 12120, Thailand, Pathum Thani, Thailand, ³Departments of Biotechnology, Faculty of Science and Technology Thammasat University, Pathumthani 12120, Thailand, Pathum Thani, Thailand
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A new Cobalt(II) coordination polymer of general formula $[\text{Co}(\text{dbm})_2(\text{apm})]_n$, where dbm = dibenzonylmethanate, apm = 2-aminopyrimidine, has been synthesized and characterized by elemental analyses, IR, NMR spectroscopy and single crystal X-ray diffraction. At 296(2) K, compound crystallizes in the orthorhombic centrosymmetric space group Ccce. The crystal structures of both compounds contain a one-dimensional (1D) zigzag chain in which the metal atom is coordinated by two dbm and two apm ligands. The apm ligands are connected adjacent metal ions to form an infinite 1D zigzag chain and may also help to stabilize the chain by forming classical N–H•••O hydrogen bonds with oxygen atoms from the dbm ligands. The intrachain M•••M distances is 6.429(3) Å. The antibacterial activity was screened by disc diffusion method with *S. aureus*, *B. subtilis*. The Cobalt(II) coordination polymer exhibits better antibacterial activity from starting material than pure ligand.

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