

**Synthesis and Crystal Structure Identification of  
[Cd(H<sub>2</sub>O)(CrO<sub>4</sub>)<sub>3</sub>(en)<sub>2</sub>]<sub>n</sub>**

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**Abstract :** A new complex of cadmium was synthesized by the reaction of cadmium nitrate, potassium dichromate, and ethylenediamine. Its crystal structure was determined by X-ray diffractometry. It is Crystallized in a monoclinic system, with P2<sub>1</sub>/n(14) point group and 4 molecules of the complex in the unit cell. The crystal parameters are:

$$a = 7.4615(7)\text{\AA} , b = 7.1480(2)\text{\AA} , c = 14.8485(10)\text{\AA} \\ \beta = 92.096, V = 791.41(10)\text{\AA}^3$$

Because of the unusual bridge ligands of ethylenediamine and chromate, the complex has an interesting structure, which is 3-dimensional and polymeric.