

**Polynuclear Coordination Polymer with Glutarate Ligand:
Sr(C₅H₇O₄)₂(H₂O)₂**

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In our course of obtaining new organic-inorganic complexes built up of flexible dicarboxylate ligands, we have noticed the peculiar behavior of the ligands derived from glutaric acid. Linked to rare-earth or alkaline-earth metals, they lead to a wide variety of structural types : catena polynuclear complex [1], uncommon cage feature [2], isolated polyhedra [3] involving completely or partially deprotonated unities. The new strontium biglutarate has been obtained on single crystal form via silica medium synthetic route. It is different from barium biglutarate in that it completes its coordination sphere by two coordinated water molecules, and crystalizes in space group $P\bar{1}$. The metal is nine coordinated forming infinite chains of one-antiprism $\text{SrO}_7(\text{H}_2\text{O})_2$ within which the distance between two neighbouring Sr^{2+} ions are 4.272(6)Å. These chains are cross-linked, leading to a layered structure.

[1] Benmerad B., Guehria-Laïdoudi A., Balegrone F., Birkedal H., Chapuis G., *Acta cryst.*, 2000, **C56**, 789. [2] Benmerad B., Guehria-Laïdoudi A., Dahaoui S., Lecomte C., *Acta cryst.*, 2004, **C60**, m119. [3] Aliouane K., Djeghri A., Guehria-Laidoudi A., Dahaoui S., Lecomte C., *ECM-22*, Budapest, 2004.

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