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ABSTRACT

The present invention provides a method of synthesizing hydroxy apatite comprising the steps of preparing a mixed material slurry by dispersing calcium hydroxide ($\text{Ca}(\text{OH})_2$) powder into a phosphoric acid (H_3PO_4) solution; conducting a mechanochemical milling treatment in which shearing force and compressive force based on a centrifugal force of a mechanical rotating body are imparted to the mixed material slurry, and reacting the calcium hydrate component with the phosphoric acid component under normal temperature and pressure thereby to prepare hydroxy apatite (HAp) powder having fine crystals. According to the structure described above, there can be provided a method of synthesizing hydroxy apatite having fine and uniform particle size which can be directly synthesized under normal temperature and pressure in a short time through simple and single process.