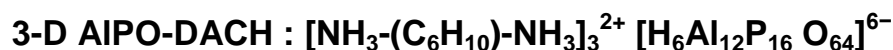


Hydrothermal synthesis and crystal structure of a new open-framework



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Abstract :

In this paper we describe the preparation of a new aluminophosphate (AIPO-DACH) $[\text{C}_6\text{H}_{18}\text{N}_2\text{Al}_4\text{P}_{5.32}\text{O}_{21.32}]$ by hydrothermal method. The structure was characterized by the single-crystal X ray diffraction. This material crystallizes in the trigonal system, space group P-3c1, $a = 12.948 \text{ \AA}$, $b = 12.948 \text{ \AA}$, $c = 18.466 \text{ \AA}$; $\alpha = 90^\circ$; $\beta = 90^\circ$; $\gamma = 120^\circ$. $V = 26811(16)\text{\AA}^3$, $Z = 12$, $R:0.086$ with 808 reflections.

Keywords : Aluminophosphate; Hydrothermal synthesis; Three dimensional structure; Diaminocyclohexane; DRX.

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