

## NaZr<sub>2</sub>(AsO<sub>4</sub>)<sub>3</sub>的水热合成研究

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**摘要** 用水热法合成了NaZr<sub>2</sub>(AsO<sub>4</sub>)<sub>3</sub>,研究了水热合成诸因素对产物物相的影响。将F<sup>-</sup>引入NaZr<sub>2</sub>(AsO<sub>4</sub>)<sub>3</sub>的水热合成中,降低了晶化温度,生长出纯的完美的较大单晶。初步探讨了NaZr<sub>2</sub>(AsO<sub>4</sub>)<sub>3</sub>的水热晶化过程。用XRD, IR和Raman光谱对各种条件下得到的产物进行了表征。

**关键词** [红外分光光度法](#) [X射线衍射分析](#) [拉曼光谱法](#) [水热合成](#)

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## Studies on the hydrothermal synthesis of NaZr<sub>2</sub>(AsO<sub>4</sub>)<sub>3</sub>

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**Abstract** NaZr<sub>2</sub>(AsO<sub>4</sub>)<sub>3</sub> was synthesized hydrothermally. The effects of the conditions of hydrothermal synthesis on the phases of products were discussed. The process of the hydrothermal crystallization of NaZr<sub>2</sub>(AsO<sub>4</sub>)<sub>3</sub> was studied. The F<sup>-</sup>, which was introduced into the hydrothermal synthesis of NaZr<sub>2</sub>(AsO<sub>4</sub>)<sub>3</sub>, lowered the temperature of the crystallization and benefitted the growth of the perfect larger single crystal of NaZr<sub>2</sub>(AsO<sub>4</sub>)<sub>3</sub>. The products obtained in various hydrothermal conditions were characterized by XRD, IR and Raman spectra.

**Key words** [INFRARED SPECTROPHOTOMETRY](#) [X-RAY DIFFRACTION ANALYSIS](#) [RAMAN SPECTROMETRY](#) [HYDROTHERMAL METHOD](#)

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