

Li-LSX沸石中阳离子分布与空分性能的研究

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摘要 利用静态交换与动态柱交换的方法对低硅KNaX沸石进行Li⁺交换. 用XRD, ICP测定样品的晶相及化学红外光谱对LSX在Li⁺交换中的骨架振动进行了研究. 结果表明: 在Li⁺交换过程中, 谱峰的位移与本身性质有关, 而且与LSX骨架中的离子位置有关. 还探讨了在高交换度的Li-LSX样品上的空分性能布的关系.

关键词 [沸石](#) [锂离子](#) [离子交换](#) [X射线衍射分析](#) [电感耦合等离子体](#)

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Distribution of Cations in the Zeolite Frameworks and the Air Separation Ability of Li-LSX

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Abstract Low-silica KNaX-zeolite (LSX) was exchanged with Li⁺ by static method and dynamic method. The zeolite crystal structure and the composition of samples were characterized by XRD and ICP, respectively. The framework vibrations of the LSX in the Li⁺ exchange process were investigated by infrared spectra. It was found that the ratio of sodium to potassium and the vibration peak location were changed during the Li⁺ exchange process. The phenomena were related to character and location of the metal ions in the frameworks of Li-LSX. The reason of increase of air separation ability for high exchange degree samples was discussed.

Key words [ZEOLITE](#) [LITHIUM ION](#) [ION EXCHANGING](#) [XRD](#) [ICP](#)

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