

化学

常温下氙在椰壳活性炭上的吸附性能

王红侠; 龚有进; 唐元明; 李伟; 王茜

中国工程物理研究院核物理与化学研究所, 四川绵阳 621900

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摘要 利用脉冲进样气相色谱法研究椰壳活性炭常温吸附Xe的性能, 获得了氙在椰壳活性炭上的吸附系数与温度、气体流速、Xe浓度的关系。研究表明: 在20~50 °C温度范围内, 温度每升高1 °C, Xe的吸附系数下降3%; 气体流速在5~10 cm/s范围内, Xe的吸附系数不受气体流速影响; 气流中Xe浓度小于10⁻³ mL/mL时, 其吸附系数亦不受影响。

关键词 [椰壳活性炭](#) [常温](#) [Xe](#) [吸附系数](#)

分类号

Adsorption Properties of Xenon by Coconut Base Activated Charcoal in Ambient Temperature

WANG Hong-xia; GONG You-jin; TANG Yuan-ming; LI Wei; WANG Qian

Institute of Nuclear Physics and Chemistry, China Academy of Engineering Physics, Mi anyang 621900, China

Abstract The adsorption properties of xenon in coconut base activated charcoal were researched by means of gas chromatography with plus injection. The relationships between the adsorption coefficient of Xe and adsorptive temperature, flow rate and concentration of xenon were obtained. Adsorption coefficient of Xe decreases by 3% due to the reduction of temperature by every 1 °C when temperature lies in the range of 20-50 °C, while the coefficient is remained independent of the various flow rates from 5 cm/s to 10 cm/s. When the concentration of Xe in the gas flow is under 10⁻³ mL/mL, the coefficient remains independent of the concentration of Xe.

Key words [coconut base activated charcoal](#) [ambient temperature](#) [xenon adsorption coefficient](#)
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