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吸附法测定U₃O₈粉末比表面积

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收稿日期 2003-7-28 修回日期 网络版发布日期:

摘要 基于金属氧化物粉末在低温及适宜压力下的单分子吸附平衡,本工作以BET理论为依据,以氮气为吸附质,研究液氮温度下U₃O₈粉末对N₂的吸附行为,测量因吸附引起的压力变化,采用定量气体体积标定单分子吸附表面积,确定工作曲线的斜率和截距,测定U₃O₈粉末样品的比表面积。方法的精密度优于11%。

关键词 [U₃O₈粉末](#) [比表面积](#) [吸附法](#) [标准体积球](#)

分类号 [0647.3](#)

Specific Surface Area Measurement of U₃O₈ Powder by Absorption

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Abstract Based on the BET theory and the absorption behavior with a single molecular-form between metal oxide and N₂ at a favorable temperature, the specific area of U₃O₈ powder is determined. The variation of pressure due to the absorption was measured, and the slopes and intercepts of the specification curve fitting are obtained by standardizing quantitative gas ball. Then the measured sample's area with the single molecular-form is calculated according to the pressure variation and fitting parameters. The precision of this method can be better than 11%.

Key words [U₃O₈ powder](#) [specific surface area](#) [absorption](#) [quantitative gas ball](#)

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