

制备致密UO₂核燃料芯核的外胶凝方法(II)

@鲍卫民\$清华大学核能技术研究所!北京 @王学军\$清华大学核能技术研究所!北京

收稿日期 1987-9-11 修回日期 网络版发布日期:

摘要 文章研究了用凝胶-支撑沉淀法制备密实UO₂包复颗粒芯核的干燥、煅烧和还原烧结三个阶段操作,分析了干燥方法、煅烧温度、中间产物的氧铀比、还原烧结温度以及升温速度对最终产品的影响,确定了UO₂致密化过程的最佳参数。小球密度达理论密度95%以上。

关键词 [溶胶-凝胶过程](#) [陶瓷](#) [燃料](#) [铀](#)

分类号

PREPARATION OF DENSE UO₂ FUEL KERNELS BY EXTERNAL GELATION PROCESS (II)

BAO WEIMIN;WAN XUEJUN Institute of Nuclear Technology, Tsinghua University, P. O. Box 1021. Beijing

Abstract Three steps, the drying, calcining and reducing-sintering of wet gel spheres in heat-treatment of gel-supported process for preparing dense UO₂ microspheres are studied. The influences of the ways of drying, temperature of calcination, O/U ratio of the intermediate products, temperature of reducing-sintering, and the rate of temperature elevation on the end-products are analyzed. The parameters for UO₂ microspheres densification are optimized. The density of UO₂ microspheres is up to 95% T. D.

Key words [Sol-gel](#) [Ceramic](#) [Fuel](#) [Uranium](#)

DOI

通讯作者

扩展功能

本文信息

- ▶ [Supporting info](#)
- ▶ [\[PDF全文\]\(375KB\)](#)
- ▶ [\[HTML全文\]\(0KB\)](#)
- ▶ [参考文献](#)

服务与反馈

- ▶ [把本文推荐给朋友](#)
- ▶ [文章反馈](#)
- ▶ [浏览反馈信息](#)

相关信息

- ▶ [本刊中包含“溶胶-凝胶过程”的相关文章](#)
- ▶ [本文作者相关文章](#)