عنوان مقاله:

Synthesis of U3O8 with secondary honeycomb morphology

محل انتشار:

اولین همایش ملی مهندسی قدرت و نیروگاه های هسته ای (سال: 1395)

تعداد صفحات اصل مقاله: 7

نویسندگان:

Hadi Malekmohammad - *Energy engineering and physics department, Amirkabir University of Technology, P.O. Box: ,15875-4413, Tehran, Iran*

.Taher Yousefi - *NFCRS, Nuclear Science and Technology Research Institute,Tehran, Iran*

Ahmad GharibGarakani - *Energy engineering and physics department, Amirkabir University of Technology, P.O. Box: .15875-4413, Tehran, Iran*

.Seyed Javad Ahmadi - *NFCRS, Nuclear Science and Technology Research Institute,Tehran, Iran*

خلاصه مقاله:

Uranium enrichment engages UF6 gas, which is prepared from U3O8 powder. U3O8 powder has been prepared by some methods like: chemical transport reactions, solid –state thermal decomposition of a new dioxidouranium (VI) complex, surfactant templating-crystal growth technique. In this research, by constant current density of 5 mA.cm-2, we used galvanostatic electro-deposition to synthesize a sample of UO3 by a simple, fast, and clean method in a closed system. After deposition of UO2(OH)2 at electrode surface, the sample was scratched and oxidized by the thermal annealing at 300-700 °C to form U3O8. powder. The as-prepared powder was analysed by XRD synthesis to .confirm that the product was U3O8. The SEM image showed the unique honeycomb structure

کلمات کلیدی:

Uranium oxide, U3O8, Electro-deposition, nanoparticles, SEM, XRD, Honeycomb

لینک ثابت مقاله در پایگاه سیویلیکا: