

## **OBTAINMENT OF ISOTOPICALLY-SUBSTITUTED MOLYBDENUM IN CASCADES OF CENTRIFUGES**

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The possibility of using of isotopically-substituted molybdenum with an average capture cross-section of thermal neutrons at the zirconium level is considered. Such a material can become an alternative to zirconium alloys used for making fuel rods of most commercial power reactors, since its application can increase the safety of these plants.

Two methods of obtaining this material have been analyzed: a single cascade for enrichment of  $^{92}\text{Mo}$  and a double cascade in which isotopes  $^{92}\text{Mo}$ ,  $^{98}\text{Mo}$ ,  $^{100}\text{Mo}$  are simultaneously concentrated. The indicated cascade schemes for obtaining a mixture of molybdenum isotopes with an average capture cross-section of thermal neutrons close to that of zirconium, greater and smaller, are compared. The efficiency of both cascade schemes was compared by the value of the total relative flow. It is shown that, depending on the value of the average capture cross-section of thermal neutrons, a double cascade and a single one can be preferable.

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