

研究报告

阈能反应分子法激光分离铀同位素

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摘要 论证了激光分离铀同位素阈能反应分子法在高浓铀小规模(10kg/a)生产中的可行性。提出了几种可能的阈能反应和对激光的要求, 并指出电子静电加速器驱动的自由电子激光技术目前已有能力满足要求。

关键词 [分离铀同位素](#) [阈能反应分子法](#) [自由电子激光](#)

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THRESHOLD CHEMICAL REACTION METHOD IN MOLECULAR FORMS FOR LASER-BASED SEPARATION OF URANIUM ISOTOPES

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Abstract It is shown that it is able to produce highly enriched uranium in a small scale of 10 kg/a using so called threshold chemical reaction method for laser-based separation of uranium isotopes in molecular forms. Some kinds of threshold reactions and the requirements for laser which are able to be adopted in the method mentioned above are given out. It is pointed out also that the technology of free electron laser driven by electrostatic accelerator is able to meet the requirements of this method.

Key words [Uranium isotope separation](#) [Threshold chemical reaction method](#) [Free electron laser](#)

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