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加速器驱动系统靶区流动可视化研究

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摘要 在加速器驱动次临界系统 (ADS)靶件模型上进行二维流动可视化研究。示踪粒子为直径 0.5mm的聚苯乙烯球状颗粒,采用片激光法对流场进行显示和KappaCCD数码摄像系统对流场进行实时拍摄,获得了ADS靶区的流型图

关键词 [加速器驱动系统](#) [嬗变靶](#) [流动可视化](#) [片激光](#) [流型](#)

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Flow Visualization of Spallation Target in Accelerator-driven Subcritical Reactor System

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Abstract Flow visualization is made in a 2 D full scale model test section of the ADS target wind tunnel design, using water as the working fluid. Flow patterns around the simulated target beam window are visualized by laser light sheet with polystyrene spherical pellets (0.5 mm in diameter) as the tracer particles, and recorded with high resolution CCD camera. In the paper the principle and technique of flow visualization with laser light sheet are presented, the obtained flow pattern images are given and discussed.

Key words [accelerator driven system](#) [spallation target](#) [flow visualization](#) [laser light sheet](#) [flow pattern](#)

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