



20~46.2MeV/u $^{12}\text{C}+^{64}\text{Cu}$ 反应中线性动量转移及重余核质量产额分布研究

<http://www.firstlight.cn> 1993-09-01

利用核化学方法测量了20~46.2MeV/u ^{12}C 与铜靶核碰撞中重余核产物的平均反冲射程及余核产额,从而得到了该系统的线性动量转移及重余核质量产额分布随入射能量的变化,讨论了线性动量转移与靶核几何尺寸及系统尺寸的关系,利用两体衰变理论对重余核质量产额分布进行了分析,并认为在这个能区,该碰撞系统所形成的激发核的主要衰变模式是相继两体衰变。

The linear momentum transfer (LMT) and mass distribution of the residues in the collisions of ^{12}C with ^{64}Cu in energy region of 20~46.2MeV/u were measured by using radiochemical method. Comparing the LMT in this system with that in other systems, linear dependence of the maximum LMT for central collision on geometry of target nucleus was obtained, and the average LMT then depended on the geometry of whole system.

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