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摘要：介绍北京师范大学分析测试中心GIC 4117型2×1.7MV串列加速器近年来的运行及应用情况。通过将实验过程中的数据采集和控制系统移到加速器大厅外新建的控制室，改善实验环境；建立外束引出装置，实现外束PIXE分析；利用多离子束分析方法对气溶胶样品中的轻元素含量进行分析。

关键词：串列加速器,PIXE,MeV离子注入,RBS,外束

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The status and applications of the GIC4117 tandem accelerator

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Abstract: The status and applications of the GIC4117 tandem accelerator in Beijing Normal University were introduced in this paper. A room beside the accelerator lab was built, and data acquired and control systems for ion beam analysis and MeV ion implantation have been shifted into this room from the lab. The facilities for external proton beam PIXE analysis have been set up, and employed for analysis of porcelain and calligraphy. The proton elastic scattering analysis (PESA) and proton non-Rutherford back scattering (PNBS) were used for measuring of the H, C, N and O contents in aerosol samples.

Key words: Tandem accelerator,PIXE,MeV ion implantation,RBS,External beam

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