

探测器与实验方法

An X-ray imaging device based on a GEM detector with delay-line readout

周意, 李澄, 孙勇杰, 邵明

Department of Modern Physics, University of Science and Technology of China, Hefei 230026, China

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摘要

An X-ray imaging device based on a triple-GEM (Gas Electron Multiplier) detector, a fast delay-line circuit with 700 MHz cut-off frequency and two dimensional readout strips with 150 μm width on the top and 250 μm width on the bottom, is designed and tested. The localization information is derived from the propagation time of the induced signals on the readout strips. This device has a good spatial resolution of 150 μm and works stably at an intensity of 10^5 Hz/mm² with 8~keV X-rays.

关键词 [delay-line readout, gas electron multiplier \(GEM\), X-ray imaging](#)

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DOI:

通讯作者:

李澄 licheng@ustc.edu.cn

作者个人主页:

周意; 李澄; 孙勇杰; 邵明

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