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## **The pulse height distribution of the chevron micro-channel plate**

*Saturday, August 6, 2016 6:00 PM (2 hours)*

In Jiangmen neutrino experiment (JUNO) we developed 20 inch electrostatic focusing micro-channel plate photomultiplier tube (MCP-PMT). In the MCP-PMT, we used the chevron micro-channel plate to collect and multiply photoelectrons from photocathode. In order to obtain a higher collection efficiency and the best single photoelectron peak valley ratio, in addition to making a good single micro-channel, it is a very significant research work. To optimize the structure and the working state of the micro-channel plate assembly. We used pulse height analyzer to test the optimum operating voltage of each MCP and changes of electric field in gap, and then obtain the gain and pulse resolution of this components which made of the chevron micro-channel plate. In order to get the best design and best working conditions, and improve the performance of MCP-PMT, We Designed and manufactured a set of simple equipment, which can test the performance of the MCP component before load PMT, ensure that the final products of MCP-PMT after a simple test and adjustment, and then get the best performance under the best working condition. For the batch production of MCP-PMT, We obtain simple and quick test method.

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