

Status of PMT Instrumentation for the JUNO experiment

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The Jiangmen Underground Neutrino Observatory (JUNO) is a multi-purpose neutrino experiment. The main physics goal of JUNO is determination of neutrino mass hierarchy by utilizing reactor neutrinos. There will be appropriate 20000 20" PMTs equipped for JUNO, including 15000 MCP-PMT from NNVT and 5000 dynode-PMT from Hamamatsu. To achieve the designed 3%@1MeV energy resolution, the PMTs need to have high detection efficiency, high optical coverage, and low failure rate during JUNO running. In addition, 25000 3" PMTs will be applied to JUNO to help reach the required energy resolution and enhance the physics program of JUNO. Instrumentation of these PMTs, including characterization, HV divider, waterproof potting, implosion protection and installation, has been extensively studied. By now, the final design of the instrumentation has been determined, and batch production has started. In this talk, the overall status of the JUNO PMT instrumentation will be given.

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