System test Facility for Photomultiplier Tubes

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Abstract

We describe in this work the instrumentation and test setup to characterize the 64 multi-anode H8804-200MOD Hamamatsu PMTs with ultra bi-alkali photocathode. The test setup is able to run different parameters testing for each individual pixel in a fully automated operation mode. The facility is also conceived to allow different PMT types testing by performing minor changes in its hardware and software. Object oriented programming was used to make a test system framework to control the instrumentation and to perform the data analysis, so we can easily add new parameters testing defined by different projects needs. We also present the testing results of a group of the mentioned MA-PMTs.