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**Optimizing UV-glass multi-anode PMTs with a p-Terphenyl wavelength shifter** MELANIE REHFUSS, SYLVESTER JOOSTEN, ZEIN-EDDINE MEZIANI, Temple University — Due to their small form-factor, lower sensitivity to magnetic fields and potential for advanced noise-rejection, multi-anode (MA) PMTs are supremely suited for application in future open-environment Cherenkov detectors at very high luminosities. This will become critical at Jefferson Lab after the 12 GeV upgrade, as well as for a future electron-ion collider. I will present the results from performance characterization and magnetic field sensitivity testing of the 64-channel Hamamatsu H8500C-03 series MA PMT conducted at Temple University. Moreover, I will explore their behavior after the application of a p-Terphenyl wavelength shifter. Such a wavelength shifter can dramatically boost the quantum efficiency below 300nm, strongly improving the overall Cherenkov detector efficiency.

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