

Abstract Submitted
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Characterizing Scintillation and Cherenkov Light in Water-Based Liquid Scintillators¹ BENJAMIN LAND, JAVIER CARAVACA, FREIJA DESCAMPS, GABRIEL OREBI GANN, Univ of California - Berkeley — The recent development of Water-based Liquid Scintillator (WbLS) has made it possible to produce scintillating materials with highly tunable light yields and excellent optical clarity. This allows for a straightforward combination of the directional properties of Cherenkov light with the greater energy resolution afforded by the typically brighter scintillation light which lends itself well to a broad program of neutrino physics. Here we explore the light yields and time profiles of WbLS materials in development for Theia (formerly ASDC) as measured in CheSS: our bench-top Cherenkov and scintillation separation R&D project at Berkeley Lab.

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