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## Optical calibration for the DEAP-3600 dark matter experiment

DEAP-3600 is a liquid Argon-based dark matter detection experiment which utilises the organic crystalline solid 1,1,4,4-tetraphenyl-1,3-butadiene (TPB) to absorb scintillated 128nm UV light and re-emit it as 440nm visible light. Here I present the results of TPB evaporations and techniques for analysing the topography of the TPB layer using an atomic force microscope, preliminary tests on UV-range LEDs that will be used to replicate the Argon-scintillated light in calibration and plots modelling the sensitivity of the DEAP experiment.

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