

Figure 1 – Change in optical transmission and absorbance in the UV waveband for PPO film after an underwater UVB exposure of 18.4 kJ m^{-2} .

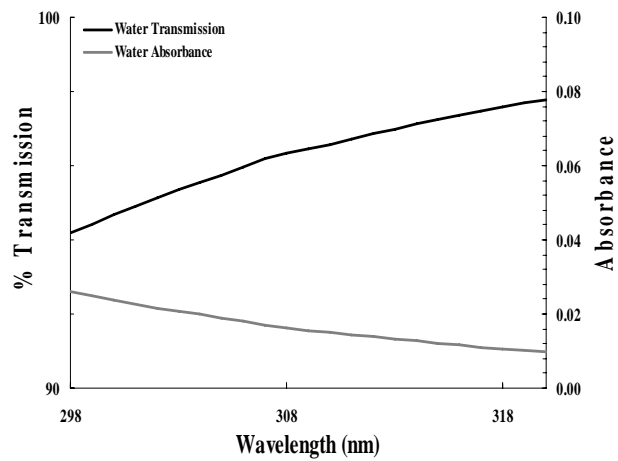


Figure 2 – Transmission and absorption spectra of a sample of the clear tap water from 298 nm through to 320 nm at 15 °C.

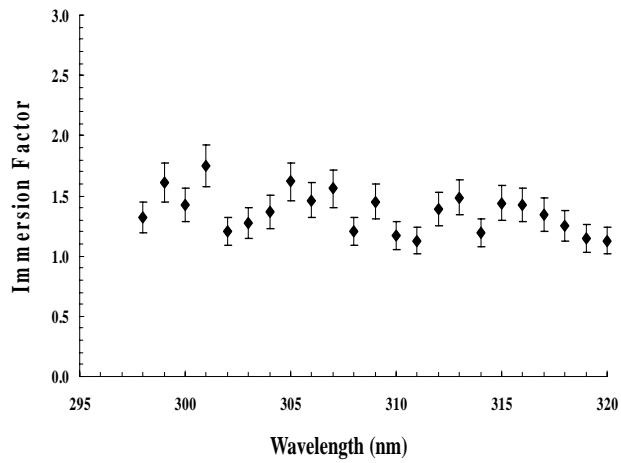


Figure 3 – Immersion effect factors from 298 nm through to 320 nm as calculated for the spectroradiometer. The y-error bars represent the cumulative $\pm 5\%$ variation estimated to exist within each scan.

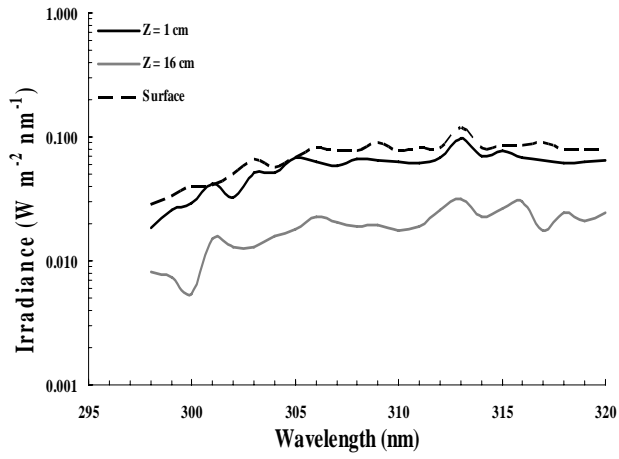


Figure 4 – Profile of immersion effect corrected spectral irradiances from 298 nm through to 320 nm in the water tank at the water surface, at $Z_{1\text{CM}}$ and $Z_{16\text{CM}}$.

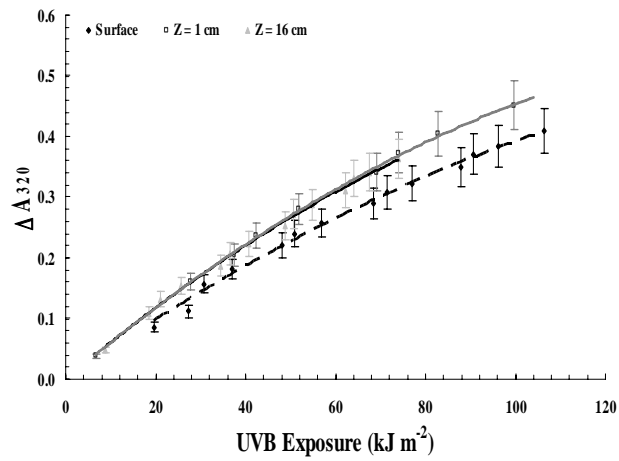


Figure 5 – Horizontal plane PPO film dose-response calibrations at the water surface and at $Z_{1\text{CM}}$ and $Z_{16\text{CM}}$. The error bars represent the $\pm 9\%$ for the in-water interdosimeter variation.

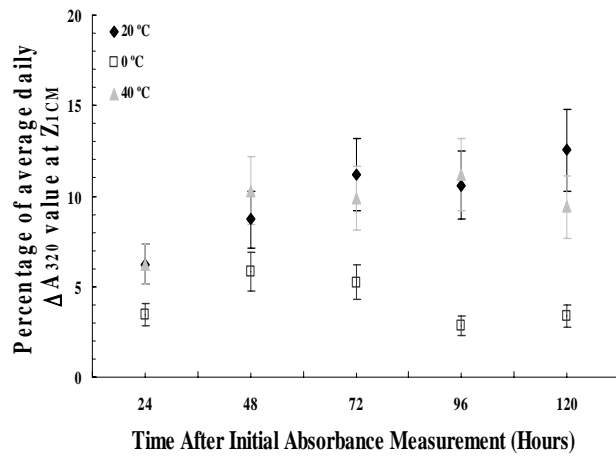


Figure 6 – Percentage ratio of the daily watermark effect measurement to the average daily ΔA_{320} value. The y-error bars represent the cumulative $\pm 9\%$ for the in-water interdosimeter variation.

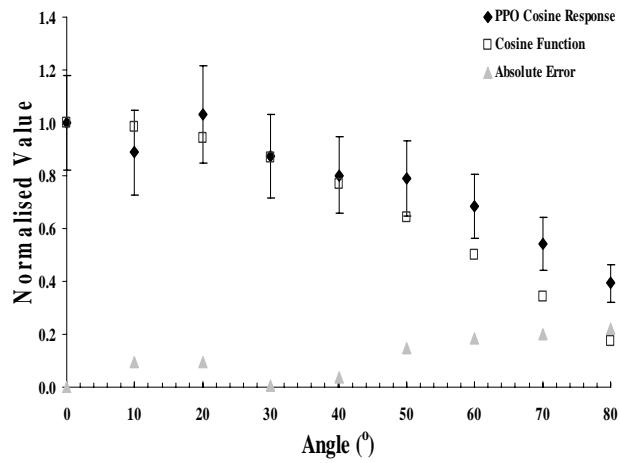


Figure 7 – PPO film cosine response underwater at an arbitrary depth. The y-error bars represent the cumulative $\pm 9\%$ in-water interdosimeter variation after normalisation.

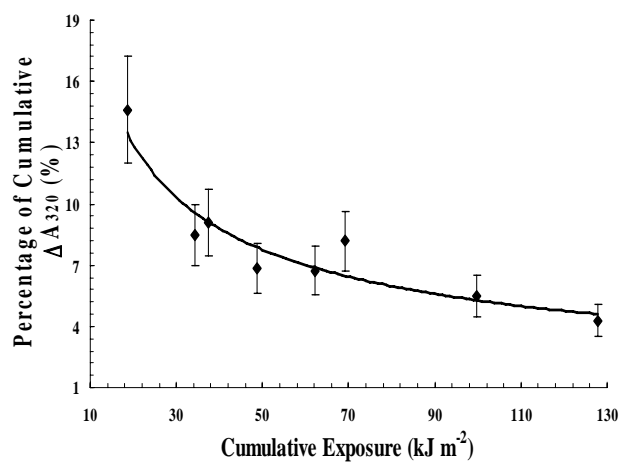


Figure 8 – Overnight dark reaction data shown as a percentage of the cumulative ΔA_{320} value measured as the accumulation of the increase in optical absorbency within the PPO film after each daily exposure. The y-error bars represent the cumulative $\pm 9\%$ for the in-water interdosimeter variation.

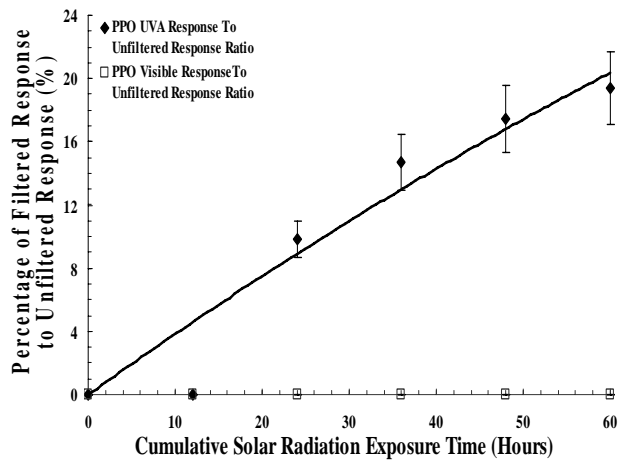


Figure 9 – PPO film reaction to UVA and visible wavelengths on a horizontal plane after 60 hours total exposure to sunlight given as a percentage ratio. The y-error bars represent the cumulative $\pm 6\%$ in-air interdosimeter variation.