Light Attenuation in Scintillators

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Light attenuation is the dimming or diminishing of light intensity as it passes through a medium. Through the utilization of analog and digital data acquisition systems, we began to set up an experiment to study light attenuation in scintillators with the purpose of studying the efficiency of light detection in a scintillator over a two-year period. By reviewing different software and comparing methods of processing and collecting the signal passed through the EJ 276 inorganic plastic scintillation bar, we began to develop a method and setup for data collection. Despite many difficulties with the hardware and software, we determined the relevant components to process the signal and analyze the output data and eventually came to a final version of an experimental set-up.