Development of pulsed stimulation and Photon Timer attachments to the Risø TL/OSL reader - DTU Orbit (14/12/2018)

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Pulsed stimulation has earlier been proven useful for several applications in dosimetry and luminescence research. Pulsed stimulation has been integrated in the Risø TL/OSL reader along with a software control built into the Sequence Editor. To facilitate research of the lifetime or delay involved in the OSL/IRSL process, a Photon Timer attachment to the Risø reader has been developed which measures data at 100 ps resolution. Furthermore a post-processing program has been developed to present the data in a compressed 3D form that gives a useful overview of the data before further analysis of relevant data. An example of how the Photon Timer has been used to characterise the performance of the pulsed stimulation unit is presented.

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