



Contribution ID: 33

Type: Poster Presentation

The design of a light-emitting-diode pulsing system for measurement of time-resolved luminescence

Tuesday, 8 July 2014 17:10 (1h 50m)

Abstract content (Max 300 words) Formatting & Special chars

A new light-emitting-diode (LED) pulsing system for measurement of time-resolved luminescence will be presented. The system has been designed for use with a set of blue light-emitting diodes as the stimulation light source. The LEDs are pulsed at various pulse width by signals from a 555-timer wired as a monostable multivibrator. The output pulse from the 555-timer is fed into an N7000 MOSFET to produce a pulse current of 500 mA to drive a set of 16 LEDs. This amount of current is sufficient to drive four sets of 4 LEDs with each LED driven at a maximum pulse current of 110 mA. A multichannel scaler (Ortec MCS-plusTM) is used to trigger the pulsing system and to record data at selectable dwell times. The system is designed for use on wide band gap insulators.

Apply to be considered for a student award (Yes / No)?

Yes

Level for award (Hons, MSc, PhD)?

MSc

Main supervisor (name and email) and his / her institution

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Would you like to submit a short paper for the Conference Proceedings (Yes / No)?

yes

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Session Classification: Poster1

Track Classification: Track F - Applied Physics