Contribution ID: 46

First Demonstration of the Three-Photon Absorption Transient Current Technique (3PA-TCT) in SiC p-in-n Diodes

Tuesday 3 December 2024 15:50 (10 minutes)

We demonstrate the application of the Three-Photon Absorption Transient Current Technique (3PA-TCT) for the characterization of silicon carbide (SiC) p-in-n diodes with an active thickness of 50 µm, manufactured at IMB-CNM. The characterization was performed at the laser facility of the University of the Basque Country (UPV-EHU), utilizing advanced nonlinear optical techniques to achieve localized charge generation with high spatial resolution. This advancement highlights the potential of 3PA-TCT as a powerful tool for the precise characterization of wide-band semiconductor radiation detectors and other semiconductor devices.

Type of presentation (in-person/online)

in-person presentation

Type of presentation (I. scientific results or II. project proposal)

I. Presentation on scientific results

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Session Classification: WG5 - Characterization