Contribution ID: **54** Type: **not specified**

Profiling of carrier lifetime and electrical characteristics in PIN and LGAD structures

Tuesday, 29 November 2022 09:30 (20 minutes)

Carrier lifetime profiles, measured by diode (PIN and LGAD) edge scanning of microwave probed photoconductivity transients, are considered. The obtained carrier lifetime profiles are compared with the electrical (C V, I V) characteristics obtained on the same structures. It is shown that carrier lifetime variations correspond to the dopant density variations extracted using C-V characteristics within base region of the diodes. Additionally, the profiles of carrier recombination lifetime in structures irradiated by stopped protons are discussed.

Primary authors: Prof. GAUBAS, Eugenijus (Vilnius University); Dr PELLEGRINI, Giulio (The Institute of Microelectronics of Barcelona); Dr PAVLOV, Jevgenij (Vilnius University); Dr DEVEIKIS, Laimonas (Vilnius University); Mr MARKEVICIUS, Rytis (Vilnius University); CEPONIS, Tomas (Vilnius University); Dr RUMBAUSKAS, Vytautas (Vilnius University)

Presenter: CEPONIS, Tomas (Vilnius University)

Session Classification: Defect and Material Characterization