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

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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.

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