41st RD50 Workshop on Radiation Hard Semiconductor Devices for Very High Luminosity Colliders (Sevilla, Spain)



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Interpad distance study on TI-LGAD Wafer 11, using Two-Photon Absorption-TCT technique

Thursday, 1 December 2022 16:20 (20 minutes)

In this presentation we will show the results from our IP study on trenched LGDAs, so called TI-LGAD using Two-Photon Absorption - TCT technique. The study has been performed at ELI Beamlines.

We recently received 2 housings with W11-A1 and W11-A2 sensors from JSI. and two sensors have been tested. Systematic and comprehensive study is accomplished with many control plots. Due to short time assigned to this talk (due to our late announcement), we will only show part of the results. Namely, only IP dependence on depth will be presented. An interesting behavior is observed.

We also want to make comment on our previously shown results on TI-LGAD (40th RD50 Coll Meeting). sensors. As we recently learnt, sensors tested and presented then were not trenched LGADs as was said in presentation (as we were told when data taking and analysis took place), but UFSD Type 4 sensors. This recently found fact explains the wider IP we previously reported that it should be if tested sensors would be really trenched LGADs.

Primary authors: Prof. LASTOVICKA-MEDIN, Gordana (University of Montenegro); Dr REBARZ, Mateusz (ELI Beamlines); Dr KRAMBERGER, Gregor (IJS); Dr ANDREASSON, Jakob (ELI Beamlines)

Presenter: Prof. LASTOVICKA-MEDIN, Gordana (University of Montenegro)

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