

42nd RD50 Workshop on Radiation Hard Semiconductor Devices for Very High Luminosity Colliders (Montenegro)

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SILICON CARBIDE DIODES FOR ULTRA-HIGH DOSE RATE DOSIMETRY

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The recent development of FLASH radiotherapy has led to the challenge of developing adequate sensors for active dosimetry in Ultra-High Dose Rate (UHDR) beam delivery. Especially in the case of FLASH electron beams the dose delivery can reach up to several Gy even in a single pulse with a few microsecond duration. The accurate dosimetry of this new UHDR radiotherapy modalities represents a key issue for its clinical translation. In this talk I will present the last results on Silicon carbide p-n diode dosimeters designed for the stringent requirements of FLASH radiotherapy that have been fabricated and characterized in an ultra-high dose rate electron beam.

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