

3rd Workshop on Advanced Silicon Radiation Detectors (3D and P-type Technologies)

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CNM double-sided 3D strip detectors before and after neutron irradiation

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Double sided 3D n-type bulk detectors processed at CNM, Barcelona, have been characterised electrical and as charge collection devices at Glasgow. The detectors are readout via the p-type columns from the front of the device, while the n-type columns, which exit via the back of the device, are all shorted together. The IV and CV characteristics of the device are presented before and after reactor neutron irradiation to a fluence of 5×10^{15} 1MeV equivalent neutrons cm^{-2} . The charge collection, from a Sr-90 MIP source, of a strip detector formed from 50 columns per strip at a pitch of 80um is presented both before and after the same neutron irradiation.

Primary author: Dr FLETA, Celeste (University of Glasgow)

Co-authors: Dr PARKES, Chris (University of Glasgow); Dr PELLEGRINI, Giulio (Centro Nacional de Microelectronica, Barcelona); Dr EKLUND, Lars (University of Glasgow); Mr DAVID, Pennicard (University of Glasgow); Dr BATES, Richard (University of Glasgow)

Presenter: Dr BATES, Richard (University of Glasgow)

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