

# Radiation hardness studies of neutron and proton irradiated CMOS sensors fabricated in the ams H18 high voltage process

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High voltage CMOS detectors (HVCMOSv3), fabricated in the ams H18 high voltage process, with a substrate resistivity of  $10\Omega \cdot \text{cm}$  were irradiated with 24 GeV/c protons up to a fluence of  $7 \times 10^{15} \text{ n}_{eq}/\text{cm}^2$  and thermal neutrons up to a fluence of  $2 \times 10^{16} \text{ n}_{eq}/\text{cm}^2$ . The detectors were characterized using edge-TCT. Both, the collected charge and the depletion depth increased after irradiation, showing a beneficial effect of irradiation on low resistivity silicon.

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