

Shallow levels analysis in n-type MCZ Si detectors after mixed irradiation

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n-type MCZ Si detectors have been irradiated with different particles and fluences: (a) fast neutron up to $1.5 \times 10^{14} \text{ n/cm}^2$; (b) fast neutrons ($1.5 \times 10^{14} \text{ n/cm}^2$) and ^{60}Co gammas (500MRad); (c) fast neutron ($3 \times 10^{14} \text{ n/cm}^2$) and ^{60}Co gammas (500MRad), in view to test a possible radiation hardening effect due to gamma irradiation occurring on neutron irradiated detectors.

In this work we examined the possible introduction of shallow donors in these detectors with the TSC technique performed in the low temperature range (5-80K). Preliminary results of this experimental study are shown and discussed.

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