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## Possibilities of large fluence irradiation dosimetry using multi-crystalline Si

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It had been shown that measurements of carrier recombination lifetime can be employed for contact-less and fast evaluation of large fluences of the hadron irradiations. The same calibration function for fluence evaluations derived using electron-grade crystalline silicon wafer fragments fits well the absolute values of carrier recombination lifetime related to the densities of radiation defects introduced by penetrative protons, neutrons and pions. For wide area dosimetry, the cheaper silicon material for fabrication of dosimetry sensors would be desirable. In this presentation, possibilities to exploit the multi-crystalline (mc) Si material for fabrication of such sensors will be discussed. The characteristics of the fluence dependent carrier lifetime measured on 8 MeV proton irradiated mc-Si sensors made of solar-cell standard p-Si substrates will be presented.

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