# For the LHCC proposal

## Institution:

University of Oslo, Physics Department/Physical Electronics

## **Contact:**

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## Personnel and fraction of their time devoted to this activity:

Edouard Monakhov (post-doc, 60 %), Giovanni Alfieri (PhD student, 80 %), Andrei Kuznetsov (assoc. professor, 40 %), Bengt G. Svensson (40 %).

## Field of interest in this collaboration:

Irradiation-induced defects in high-purity and processed silicon and their evolution with irradiation and annealing temperature, dose and dose rate. Modelling of the defect kinetics. Irradiation-induced defects in low-doped epitaxial layers of silicon carbide (polytype 4H).

## **Resources:**

Computerized setups for capacitance-voltage (measurement frequency  $20-10^6$  Hz), current-voltage, deep level transient spectroscopy (DLTS) including Laplace-DLTS, admittance spectroscopy, inverse photoemission and photoluminescence. Cryostats covering a temperature range of 10 to 700 K are available. There are also equipment for optical interferometry measurements (used for in-situ studies of etch rates and mechanical stress of semiconductors), systems for thin film (contact) deposition, annealing furnaces and heating cabinets for long-term stability tests of devices.

By the end of 2002, a 1 MV ion tandem accelerator will be installed in our new micro-technologylaboratory.