Institute of Materials Science and Applied Research, Vilnius University Sauletekio al.9, 3rd build. 2040 Vilnius, Lithuania

Contact: Prof.Dr.Sc. Juozas V. Vaitkus Head of Semiconductor Physics Department Phone: 370 2 366071 (o), 370 86 14893 (mob.) E-mail: juozas.vaitkus@ff.vu.lt; Fax: 370 2 366003 Group members: J.V.Vaitkus (20% research time), E.Gaubas (PhD 50%), K.Jarasiunas (prof.Dr.Sc. 30%), M.Sudzius (PhD 50%), R.Jasinskaite (PhD 50%), V.Kazukauskas (Habil.Dr., 80 %), J.Storasta (PhD 50%), S.Sakahuskas (prof., Dr.Sc. 30%), V.Kazlauskiene (PhD, 30 %). Also a few research and doctoral students.

Current Activities:

Characterisation of irradiated and non-irradiated silicon, GaAs, GaN, SiC materials and devices at different temperatures using: a) microwave and IR light transient absorption for non-equilibrium carrier lifetime measurement and mapping; b) deep level spectra analyse by DLTS, photoconductivity and quenching photo-ionization spectroscopy; thermally stimulated currents and depolarisation, c) microingomogebeities by dc and transient photoconductivity, photo-Hall and photo-magnetoresistivity effects, d) parameters and homogeneity of wafer or structure by transient gratings on free carriers and on a free carrier dependent electro-optical effect; f) investigation of material and structure by ESCA, AES, SIMS, Kelvin probe as well as by I-V, C-V and noise spectroscopy.

Field of interest:

Defects and microingomogeneities properties and engineering in silicon and semiconductor compounds.

Available resources:

All setups for given above characterization.

Laser ablation setup for contact modification and deposition (also thermal, magnetron, electrochemical deposition).