



Thematic Network on Silicon on Insulator Technology, Devices and Circuits.
[IST-1-506653-CA]

EUROSIO "Who is Who" Guide

Name of the organisation	
<i>Organization Legal name:</i>	Lashkaryov Institute of Semiconductor Physics, National Academy of Sciences of Ukraine
<i>Organization short name:</i>	ISP
<i>Internet homepage:</i>	www.isp.kiev.ua

Contact person			
<i>Name:</i>	<i>Nazarov</i>	<i>Title:</i>	<i>Prof.</i>
<i>First name:</i>	<i>Alexei</i>	<i>Sex:</i>	<i>M</i>
<i>Phone:</i>	<i>380-44-265-7022</i>	<i>E-mail:</i>	<i>nazarov@lab15.kiev.ua</i>
<i>Postal Address</i>	<i>Prospekt Nauki 41, 03028 Kyiv, Ukraine</i>		

Other Senior Researchers: (up to 10 names, please include e-mail address)

Prof. V.Lysenko – lysenko@lab15.kiev.ua

Dr.T.Rudenko – tamara@lab15.kiev.ua

Dr. I.Tyagulskii – cryo@lab15.kiev.ua

Experience and expertise fields: (50 words)

Main experience is in electrical characterization methods and theory of SOI structures and MOSFETs operation at extreme conditions, such as: cryogenic and high temperatures (from 4.2 to 700K); high-field electron injection in dielectric layers; ionizing radiation; thermal-bias effect. Main technical direction is the development of laser zone melting recrystallization technique for SOI wafers fabrication with special buried dielectrics.

Facilities and Equipment:

Current thermally activated spectroscopy and I-V in wide temperature range (from 4.2 to 673K); Capacitance and conductance DLTS (T_{op} – 80 to 573K); High-frequency capacitance relaxation technique (80-673K); Combined equipment for high-field FN and low-field UV electron injections operated in constant current and constant voltage regimes together with C-V or I-V measurements in temperature range from 300 to 600K; C-V at frequency from 20 Hz to 10^6 Hz and temperature from 80 to 373K; RTA and RF plasma treatment equipments.

Three last international research projects:

NATO Collaborative Linkage Project SST.CLG 975925 "Development of SOI technology for microelectronic devices working under harsh conditions (extension)" (1999-2001); STCU project 2332 "Technology of silicon-on-insulator and silicon-carbide-on-insulator structures for high-temperature microelectronic devices" (European Financial Supporting) (2001-2003); Network of Excellence of 6th Framework Programme "Silicon-based nanodevices" (2004-2006).