CENTRE OF PHOTON ELECTRON AND ION ADVANCED METHODS FOR NATURAL SCIENCE

CEPHEUS

Workshop on Advanced Methods for Interpretation of TEM, X-Ray and SIMS Measurements in Nano and Atomic Scale

1-3 June 2005, INSTITUTE OF PHYSICS, PAS
Warsaw, Poland

http://info.ifpan.edu.pl/cepheus/Workshop/WORKSHOP2005.htm

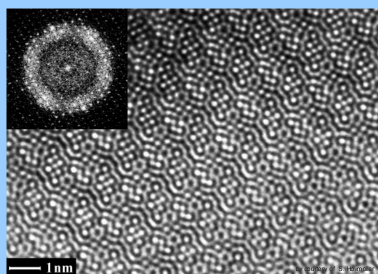
Chair Person : S.Kret E-mail: kret@ifpan.edu.pl

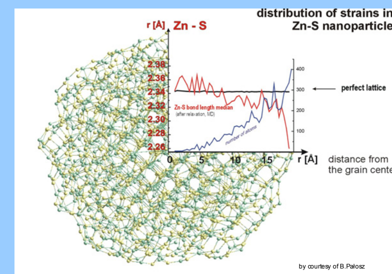
Methods:

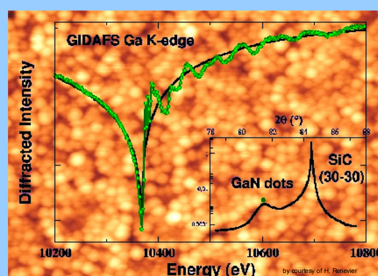
- Synchrotron Radiation (XRSR, EXAFS, GIDAFS)
- Transmission Electron Microscopy (EELS, TEM, HRTEM)
- Secondary Ion Mass Spectroscopy (SIMS)
- Advanced Processing of Raw Data
- Modeling :
  - Molecular Dynamics (MD)
  - Finite Element Methods (FEM).

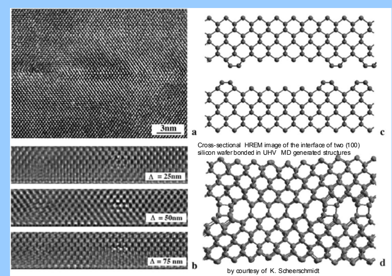
Object of Investigations:

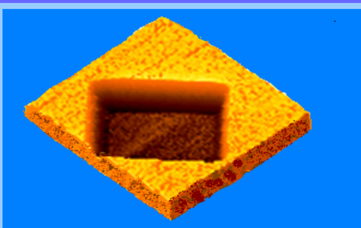
- Quantum Heterostructures
- Integrated Devices
- Nanocrystalline Materials

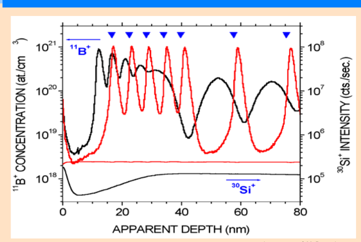


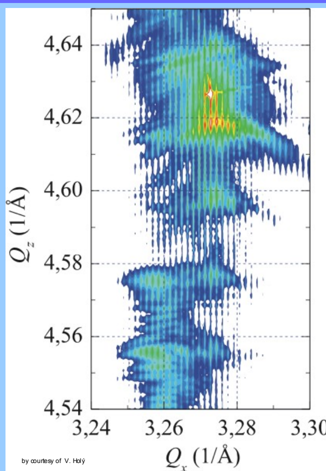


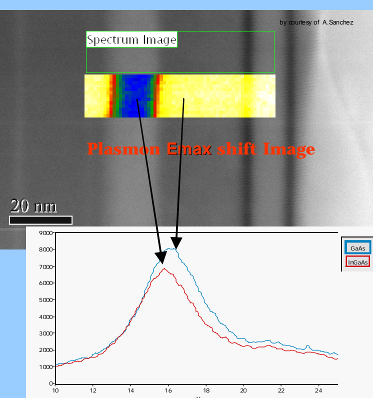


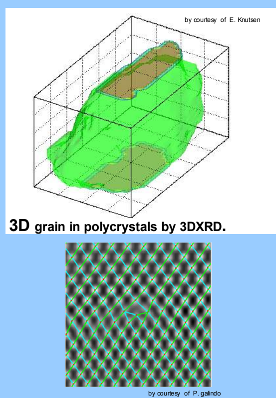












by courtesy of P. galindo

Invited Speakers:

M. Bersani (Povo-Trento, Italy)
Ultra shallow depth profiling by SIMS in microelectronic materials and processes

S. Hovmöller (Stockholm, Sweden)
Computer aided electron crystallography as powerful tool to structure determination

V. Holý (Masaryk, Czech Republic)
X-ray investigation of self-organized semiconductor nanostructures

M. Hÿtch (Vitry-sur-Seine, France)
Geometric phase analysis for measuring strain in nanostructures: challenges and recent advances.

I. Demchenko (Warsaw, Poland)
EXAFS as a tool for investigation the local environment of Ge atoms in buried low-dimensional structures

P. Galindo (Cádiz, Spain)
The Peak Pairs strain mapping algorithm and its application to HRTEM images

E. Knudsen (Roskilde, Denmark)
Algorithms and instrumentation for generating 3d grain maps in polycrystals by 3DXRD

B. Pałosz (Warsaw, Poland)
Diffraction study of nanocrystals under ambient and non-ambient conditions

H. Renevier (Grenoble, France)
Grazing Incidence Anomalous Diffraction and Diffraction Anomalous Fine Structure (GIDAFS) to study nanostructures

A. Rosenauer (Bremen, Germany)
Composition evaluation by lattice fringe analysis (CELFA) in semiconductors nanostructures investigation

A. Sanchez (Universidad de Cádiz, Spain)
Plasmon peak in EELS. The beginning of a new technique to determine the strain in semiconductor heterostructures

K. Scheerschmidt (Halle, Germany)
Molecular dynamics modeling for enhanced interpretation of TEM images