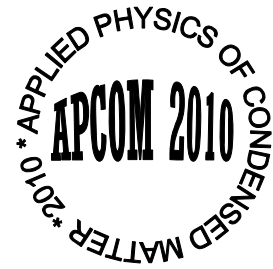


SCIENTIFIC PROGRAMME APCOM 2010



Wednesday, June 16st, 2010

LUNCH (12:30)

OPENNING (14:00)

SESSION 1 PLENARY SESSION (14:15-15:45)

D. Lukášik, F. Vranay, Ľ. Tkáčik, J. Ferenci

Renewable energy is a strategic nature capital of the society

P. Ballo, L. Harmatha, E. Vitkovská

Introduction to computational physics and supercomputing

A. Szyszka, B. Paszkiewicz, R. Paszkiewicz, M. Tlaczala

Observation of virtual gate effect in gallium nitrides structures

A. Vincze, R. Srnánek, A. Šatka, F. Uherek, J. Matuška

Spectroscopic investigation of pyrolytic boron nitride

F. Dubecký, J. Kováč, J. Mudroň, P. Hubík, M. Dubecký, E. Gombia

Photocurrent spectroscopy of semi-insulating GaAs with a new contact metallization:
indication of 2DEG formed at the m-s interface

V. Lisý, J. Tóthová

Anomalous Brownian motion

Parallel sessions – a short break only

SESSION 2(A) SIMULATIONS AND MODELLING I. (15:45-17:00)

M. Konôpka, P. Bokes

Simulation of time-dependent currents in resonant nanojunction

L. Glod, V. Lisý

Field-driven Brownian motion of magnetic domain walls

M. Mikolášek, J. Racko, P. Gašpírik, L. Harmatha, P. Ballo, P. Šutta

The influence of the $t_{co}/emitter$ Schottky barrier on the performance of a-Si:H(n)/c-Si(p)
hetero-structure solar cells

M. Krajmer, J. Racko, D. Ďuračková, M. Kadlečiková

Impact of a various parameters of floating gate transistor to its transfer characteristics

J. Racko, M. Mikolášek, J. Breza, A. Grmanová, L. Harmatha

The effect of space distribution of traps in the insulator upon the I-V curve of MIM structures

G. Vasziová, V. Lisý

Thermal fluctuations in electric circuits and the Brownian motion

J. Müllerová, M. Weis

Investigation of excitonic absorption in thermally annealed thin films of poly(3-hexylthiophene-2,5-diyl)

P. Tvarožek, M. Koyš, I. Martinček, H. Ludvigsen

Supercontinuum generation in photonic crystal fibers

E. Šušlik, J. Škriniarová, D. Pudiš, J. Kováč, jr. , I. Martinček, J. Kováč, I. Kubicová

Surface emission from GaAs/AlGaAs LED patterned by 2D photonic structure

O. Kádár, F. Uherek, J. Chlpík, J. Bruncko, S. Flickyngerová, R. Lupták, J. Chovan

Investigation of optical properties of ZnO prepared by pulse laser deposition and sputtering

COFFEE BREAK

(17:00)

J. Marek, D. Donoval, A. Chvála, P. Pribytný

Analysis of the properties of a low voltage vertical power MOS transistor under multipulse UIS test conditions

T. Váry, P. Markoš

Propagation of the surface plasmon polaritons through periodic structures

A. Chvála, D. Donoval, R. Šramatý, M. Florovič, J. Kováč, P. Kordoš

Characterisation of AlGaIn/GaN Schottky contact in wide temperature range

V. Áč, D. Korytár, Z. Zápražný, E. Dobročka

Thermally tuned X-ray V-shaped monochromator - simulations and experimental results

M. Diešková, P. Bokes

Conduction of tunnel junctions from simple models and first principles

P. Pribytný, D. Donoval, A. Chvála, J. Marek

Analysis and optimization of power diode supported by electro-thermal modeling and simulation

R. Záluský, E. Raschman, D. Ďuračková

The use of the Daktyl teacher software and sensory glove for dactyl alphabet recognition

J. Sitek, J. Degmová

Influence of external factors on nanostructures

M. Pavúk, T. Hatala, M. Miglierini

In situ crystallization of amorphous Fe-Mo-Cu-B alloy studied by diffraction of synchrotron radiation

T. Hatala, M. Pavúk, M. Miglierini

Kinetics of crystallization in Co-substituted nanoperm-type alloys studied by diffraction of synchrotron radiation

A. Bajusová, J. Grežd'o, M. Miglierini

Verification of 2-D dosimeter matrix as a tool for quality assurance in brachytherapy

J. Veterníková, J. Degmová, S. Kilpeläinen, V. Slugeň, F. Tuomisto

Radiation resistance of construction steels for high temperature reactors

J. Dekan, V. Slugeň, J. Lipka, J. Degmová

Mossbauer analysis of corrosion forms in secondary circuit of the NPP

WELCOME PARTY (19:30)

Thursday, June 17th, 2010

BREAKFAST (07:00)

H. Frank

Measurements of zirconium alloy oxide layers

V. Ďurman, V. Šály

Slow polarization processes in dielectric structures

D. Fidříková, L. Kubičár

Investigation of water diffusion in porous stones using transient hot-ball method

M. Nemeč, M. Jurkovič, L. Harmatha, P. Mokryš, B. Weber,

P. Písečný, K. Fröhlich

Characterization of MOS structures by conductance method

J. Šebok, M. Petrus, E. Stuchlíková, L. Harmatha, J. Kováč,

M. Nemeč, J. Benkovská, J. Škriniarová

Study of electrical properties of GaN by capacitance methods

E. Stuchlíková, J. Šebok, M. Petrus, L. Harmatha, J. Benkovská,

J. Kováč, J. Škriniarová, T. Lalinský, R. Paskiewicz, M. Tlaczala

Deep energy levels in $\text{Al}_{0.19}\text{Ga}_{0.81}\text{N}/\text{GaN}$ single-quantum-well structures

M. Žiška, L. Harmatha

Interface trap density of mos nez structure after irradiation with Xe heavy ions

P. Benko, L. Harmatha, I. Novotný, V. Řeháček, A. Vincze

Electrical characterization of MOS structures with nickel gate electrodes

SESSION 4(B) METHODS IN MATERIAL SCIENCE (8:30-10:30)

O. Fričová, M. Uhrínová, V. Hronský, D. Olčák

Spin-lattice relaxation study of isotactic polypropylene

M. Kovařáková, O. Fričová, V. Hronský, J. Mandula, B. Salaiová, M. Holubka

Waste tyre rubber studied by solid state NMR

M. Uhrínová, O. Fričová, D. Olčák, V. Hronský

1M MAS NMR study of molecular motion in isotactic polypropylene

V. Hronský, O. Fričová, M. Uhrínová, D. Olčák, I. Chodák

Solid state ^{13}C NMR study of isotactic polypropylene

S. Nagyová, V. Hronský, M. Kovařáková, D. Olčák, P. Finocchiaro, E. Fortunová

Location of pyridine in copper-exchanged synthetic ZSM5 studied by using mas ^1H NMR spectroscopy

S. Nagyová, V. Hronský, M. Kovařáková, D. Olčák, P. Finocchiaro, E. Fortunová

Location of pyridine in copper-exchanged synthetic ZSM5 studied by using CP MAS ^{13}C NMR spectroscopy

J. Bruncko, M. Michalka

Growth of ZnO nanowires by pulsed laser deposition

J. Círák, M. Sokolský

Visualization of domains in 2D molecular systems by Brewster angle microscope

COFFEE BREAK

(10:30)

M. Florovič, J. Kováč, J. Škriniarová, T. Lalinský, Š. Haščík, P. Kordoš,

D. Donoval, R. Kinder, M. Tomáška

Electrical properties of Al_{0.3}Ga_{0.7}N/GaN heterostructure field effect transistor

K. Rendek, A. Šatka, J. Kováč, D. Donoval

Investigation of low-frequency noise in HEMT transistors

W. Macherzyński, B. Paszkiewicz, R. Paszkiewicz, M. Tlaczala

Ohmic contacts to n-type AlGa_{0.3}N/GaN heterostructures

M. Varga, M. Vojs, M. Marton, L. Michalíková, M. Veselý, R. Redhammer,

M. Michalka

Substrate seeding by ultrasonication with diamond powder and diamond film growth

M. Vojs, E. Šipoš, V. Řeháček, M. Marton, M. Varga, M. Veselý

A study of bismuth-film electrodes for the determination of trace metals by anodic stripping voltammetry

V. Sopko, B. Sopko, D. Chren, J. Dammer, Z. Kohout

Technology of GaAs detectors production

S. Semenko, B. Sopko

Annealing of the radiation defects in neutron irradiated silicon

B. Zaťko, F. Dubecký, P. Boháček, V. Nečas, L. Ryč

Evaluation of semi-insulating GaAs detector in soft X-ray region

Z. Zápražný, D. Korytár, F. Dubecký, V. Áč, J. Lekki, Z. Stachura,

J. Bielecki, J. Mudroň

First experience with imaging using microfocus X-ray source

P. Boháček, F. Dubecký, B. Zaťko, M. Sekáčová, J. Huran, T. Šalát,

V. Nečas, J. Mudroň

Performance study of 2x64 pixel two-line monolithic x-ray detection chip on semi-insulating GaAs

LUNCH (12:15)

SOCIAL PROGRAMME (A TRIP TO JÁNOŠÍKOVE DIERY AND MALÝ ROZSUTEC) (13:30)

DINNER (18:45)

SOCIAL PROGRAMME (A GET-TOGETHER PARTY - FIREPLACE) (20:00)

Friday, June 18th, 2010

BREAKFAST

(7:00)

SESSION 6(A) THIN FILMS AND LITHOGRAPHY (08:30-10:00)

I. Kubicová, D. Pudiš, J. Škriniarová, E. Šušlik

Fabrication of submicrometer structures using NSOM lithography

L. Matay, R. Andok, A. Ritomský, V. Barák, I. Kostič, S. Partel, P. Hudek

Alignment marks for the EBDW lithography

D. Haško, A. Šatka, J. Kováč, F. Uherek

Charakterization of semiconductor structures using Kelvin probe force microscopy

M. Hartmanová, M. Jergel, J.P. Holgado, J.P. Espinos, M. Trgala

Effect of deposition temperature and vapour flux incidence angle on the microstructure of Y₂O₃ films

J. Bruncko, M. Netrvalová, P. Šutta, A. Vincze, D. Haško, F. Uherek

Annealing and recrystallization of ZnO thin films

S. Jurečka, A. Ohnaka, H. Kobayashi

Study of structural and optical properties of textured semiconductor surfaces

SESSION 6(B) MATERIAL SCIENCE (08:30-10:00)

E. Mustafin, I. Strašik, A. Fertman, M. Pavlovič, R. Hinca

Activation of construction materials by heavy ions

S. Berezina

Investigation of elastic properties of hard ceramics

L. Michalíková, J. Škriniarová, M. Marton, M. Veselý

Determination of skin cell adhesion to diamond-like carbon layers

M. Trgala, M. Leporis, T. Plecenik, P. Neilinger, M. Grajcar, P. Kus, A. Plecenik

MoC superconducting thin films for CPW resonator and phase slip qubits

I. Banik

Meyer-Neldel rule in disordered semiconductors

P. Švec, J. Hoško, P. Švec, Sr., I. Maťko, P. Šebo, D. Janičkovič

Microstructure of lead-free solder joints by X-ray, SEM and EDX analyses

COFFEE BREAK

(10:00)

P. Bury

Acoustic evaluation of interface state density in ultrathin MOS structures

R. Durný, V. Nádaždy, A. Plecenik, M. Zeman

Staebler–Wronski effect in thin silicon films deposited from hydrogen diluted silane

CONCLUDING REMARKS

(11:00)

LUNCH

(12:00)

DEPARTURE

(13:00)