

PROGRAM

Wednesday - September 10, 2008

07: 30 - 08: 30

Registration

08: 30 - 09: 00

Official Opening

- *Opening Speech by Prof. Acad. Nguyen Van Hieu
(Honour President of the Vietnamese Physical Society)*
- *Welcoming Speech by Prof. Vu Van Xung
(President , University of Nha Trang)*

Plenary Session

09: 00 - 09: 30

NANOPHOTONICS IN KOREA: PRESENT STATUS AND THE FUTURE

*F.Rotermund, K. Kim, S. Kim, J. Lee and Hanjo Lim
(Ajou University, Korea)*

09: 30 - 10: 00

RECENT RESULTS OF VIETNAMESE GROUPS IN THE RESEARCH OF OPTICAL PROPERTIES OF PHOTONIC AND NANO-MATERIALS

Nguyen Ngoc Long (College of Natural Sciences. VNU Hanoi)

10: 00 - 10: 30

MANIPULATION AND CONTROLLING ATOMS AND PHOTONS USING OPTICAL NANOFIBERS

Kohzo Hakuta (Uni. of Electro-Communications, Tokyo, Japan)

10: 30 - 10: 45

Coffee Break

10: 45 - 11: 15

ACTIVITIES OF VIETNAMESE GROUPS IN PHOTONIC & LASER RESEARCH AND DEVELOPMENT

Nguyen Dai Hung (IOP, VAST)

11: 15 - 11: 45

PHOTONIC & LASER RESEARCH AND APPLICATIONS IN THE B.I. STEPANOV INSTITUTE OF PHYSICS

V.A. Orlovich (B.I. Stepanov Institute of Physics. Belarus)

11: 45 - 12: 15

PHOTONIC APPLICATIONS AND EDUCATIONS

Nguyen The Khoi (Uni. of Education, Hanoi, Vietnam)

Buffet Lunch

SESSION A: SPECTROSCOPY OF CONDENSED MATTER AND NANO MATERIALS

September 10, 2008 (Wednesday)

Chairperson: Prof. Nguyen Ngoc Long (VNUH), Dr. Le Vu Tuan Hung (VNUHCM)

- (A-01)
13:30 - 13:45 **NANOCRYSTALLINE TiO₂ FILMS: PREPARATION AND CHARACTERISATION OF PHOTOCATALYTIC PROPERTIES**
N. Nang Dinh, Pham Hoang Ngan, Pham Van Nho (College of Technology, VNUH, Hanoi)
- (A-02)
13:45 - 14:00 **EFFECT OF ANNEALING ENVIRONMENT ON THE PROPERTIES OF Zn_{1-x}Co_xO FILMS**
L.H. Hoang, V.T. Thu, P.V. Hai, N.D. Lam, P.D. Chung and N.T. Khoi (Hanoi University of Education)
- (A-03)
14:00 - 14:15 **OPTICAL PROPERTIES OF Zn_{1-x-y}Co_xCu_yO**
Nguyen Thi Thuc Hien, N. Chi Thanh, Ngo Thanh Dung, Ngo Xuan Dai (Hanoi University of Science)
- (A-04)
14:15 - 14:30 **MICROWAVE – ASSISTED SYNTHESIS OF ZnO NANOPARTICLES**
P.D. Chung, T.D. Hai, P.V. Hai, N.H.Hai, N.T.Khoi and L.H.Hoang (Hanoi University of Education)
- (A-05)
14:30 - 14:45 **FABRICATING AND STUDYING STRUCTURE, OPTICAL PROPERTIES OF ZnO NANORODS**
N. Thuy Linh, Do Thi Sam, N. Huy Dan (Hanoi University of Education)
- (A-06)
14:45 – 15:00 **A SOLVENT INFLUENT ON THE PROPERTIES OF ZnS AND ZnS:Cu, Al MATERIALS PREPARED BY CO- PRECIPITATION METHOD**
N. Bich Phuong and N. Minh Thuy (Dong Thap University of Education)
- (A-07)
15:00 – 15:15 **EFFECTS OF THE ZnS SHELL THICKNESS AND THE TEMPERATURE ON THE PHOTOLUMINESCENCE DECAY IN CdSe/ZnS QUANTUM DOTS**
P. T. Nga, N. X. Nghia, V. Chinh, P. T. Linh et al. (IMS-VAST)
- 15:15 – 15:30** **Coffee break**

Chairperson: Dr. Luc Huy Hoang (EUHN), Prof. Tran Hong Nhung (IOP-VAST)

(A-08)
15:30 – 15:45

**TEMPERATURE DEPENDENCE OF THE
PHOTOLUMINESCENCE PROPERTIES OF CdSe/CdS
CORE/SHELL NANOSTRUCTURES PREPARED IN
OCTADECENE**

*Le Ba Hai, Nguyen Xuan Nghia, Pham Thu Nga, Nguyen Thi Thu Trang
(IMS-VAST)*

(A-09)
15:45 – 16:00

**FABRICATION OF LUMINESCENCE POWDER ZnS:Al BY THE
SOLID STATE REACTION METHOD AND STUDYING THEIR
PHOTOLUMINESCENCE SPECTRA**

*Nguyen Thi Thanh, Pham Van Ben, Phan Trong Tue (Hanoi University
of Science)*

(A-10)
16:00 – 16:15

**HIGH LUMINESCENCE EFFICIENCY CdTe QUANTUM DOTS
SYNTHESIZED IN AQUEOUS SOLUTIONS**

*Pham Song Toan, Trinh Duc Thien, Dang Diep Minh Tan, Do Xuan
Thanh, and Nguyen Quang Liem (IMS-VAST)*

(A-11)
16:15 – 16:30

**SYNTHESIS CdSe QUANTUM DOT AND DETERMINE ITS SIZE
FROM OPTICAL SPECTRA**

*Khong Cat Cuong, Trinh Duc Thien, Pham Van Hai, Nguyen Phi Hung,
Bui Phuong Thanh and Nguyen Van Hung, Pham Thu Nga, Vu Duc
Chinh, Vu Thi Hong Hanh (Hanoi University of Education)*

(A-12)
16:30 – 16:45

**OPTICAL CHARACTERIZATION OF ZnS NANOPARTICLES
BY HYDROTHERMAL METHOD**

*Nguyen Ngoc Long, Tran Thi Quynh Hoa, Ta Dinh Canh (Hanoi
University of Science)*

(A-13)
16:45 – 17:00

**THE CONFINEMENT EFFECT OF ZnO QUANTUM WELL ON
SAPPHIRE SUBSTRATE**

*Nguyen Thanh Binh, Vu Thi Bich, Ngac An Bang, B. P. Zhang, Y.
Segawa (IOP-VAST)*

September 11, 2008 (Thursday)

Chairperson: Prof. Nguyen Thi Thuc Hien (VNUH), Prof. Le Van Hieu (VNUHCM)

- (A-14)
08:30 – 08:45 **STUDYING STRUCTURAL AND MAGNETIC PROPERTIES OF SnO₂:Co**
Duong Manh Toan, Luc Huy Hoang, Nguyen Van Minh, Pham Anh Duc, Nguyen The Khoi and N. Van Hung (Hanoi University of Education)
- (A-15)
08:45 – 09:00 **OPTOELECTRONICAL AND SURFACE PROPERTIES OF INDIUM SULFIDE THIN FILMS PREPARED BY ULTRASONIC SPRAY PYROLYSIS**
Pham Phi Hung, Nguyen Tuyet Nga, Nguyen Hoang Thoan, Tran Thanh Thai and Vo Thach Son (Hanoi University of Technology)
- (A-16)
09:00 – 09:15 **EVALUATION OF THE KINETIC PARAMETERS AND THE TEMPERATURE LAG IN THE TL GLOW CURVE MEASUREMENTS BY THE VARIABLE – HEATING RATE METHOD**
Vu Thi Thai Ha, Nguyen Thi Quy Hai and N. Ngoc Long (IMS-VAST)
- (A-17)
09:15 – 09:30 **GROWTH SINGLE CRYSTAL Li₂B₄O₇ AND THE KINETIC PARAMETERS OF THERMAL STIMULATION LUMINESCENCE.**
Bui The Huy, Vinh Hao, Huynh Ky Hanh, Doan Phan Thao Tien, Dinh Van Kinh, Ngo Van Tam, Vo Thi Thu Ha (Nhatrang Inst.)
- (A-18)
09:30 – 09:45 **SPECTROSCOPIC EVALUATION OF Gd³⁺ IONS IN LITHIUM TETRABORATE GLASS BY JUDD-OFELT THEORY**
Bui The Huy, Vu Xuan Quang, Huynh Thi Ngoc Nga, Be Kim Giap (Nhatrang Inst.)
- (A-19)
09:45 – 10:00 **FLUORESCENCE AND JUDD-OFELT ANALYSIS OF Eu³⁺ IN MIXED ALKALI BORATE GLASSES Li_(x)Na_(2-x)B₄O₇:Eu³⁺**
Vu xuan Quang, Ngo Q. Thanh, Nguyen Trong Thanh, Vu phi Tuyen, Phan Tien Dung (Institute of Materials Science –VAST)
- (A-20)
10:00 – 10:15 **INVESTIGATION OF NANO SPHERE BASED RETRO EMISSIVE THIN FILM**
P.H. Duong, D.N. Chung, P. T. Nga, N.T.T.Ngan, P.T. Huy, N. N. Dinh (Hanoi University of Technology)
- 10: 15 – 10: 30** **Coffee break**

Chairperson: Dr. Vu T. Kim Lien (Thai Nguyen Uni.), Prof. N. Q. Liem (IMS-VAST)

(A-21)
10:30 – 10:45

**OPTICAL PROPERTIES OF POWDERS AND FILMS
NITROGEN DOPED NANO TiO₂**

*Ha Thanh Tung, Nguyen Bich Phuong, Nguyen Thanh Nguyen
(Dong Thap University of Education)*

(A-22)
10:45 – 11:00

**THIN POROUS SiC LAYER MADE ON p- AND n-DOPED
AMORPHOUS SiC FILM AND ITS PHOTOLUMINESCENCE**

*Cao Tuan Anh, Dao Tran Cao, Nguyen Thi Thu Ha, Huynh Thi Ha,
Pham Thi Mai Hoa and Ngo Xuan Dai (IOP-VAST)*

(A-23)
11:00 – 11:15

**OPTICAL PROPERTIES OF ZnAl₂O₄: Eu³⁺ PREPARED BY
THE HYDROTHERMAL METHOD**

*Le Hong Ha, Tran Thi Duyen, Phung Thi Lanh, Nguyen Ngoc Long,
Trinh Thi Loan (Hanoi University of Science)*

(A-24)
11:15 – 11:30

**STUDYING AND FABRICATING MULTILAYER FILMS
TiO₂/Ti/Ag/TiO₂ ON GLASS BY D.C REACTIVE MAGNETRON
SPUTTERING METHOD**

*Le Tran, Ha Tan Hoa, Nguyen Trung Thanh, Tran Tuan, Nguyen Huu
Chi (Ho Chi Minh University of Science)*

(A-25)
11:30 – 11:45

**PHOTOLUMINESCENT PROPERTIES OF THE RARE EARTH
IONS DOPED SrAl₂O₄ PREPARED BY SOL-GEL METHOD**

*Nguyen Manh Son, Le Thi Thao Vien, Le Van Khoa Bao, Nguyen Ngoc
Tra, Le Thi Lien Phuong (Danang University of Duy Tan)*

(A-26)
11:45 – 12:00

**SPECTRAL CHARACTERS OF THE RARE EARTH (RE)
DOPED HALOSULPHATE MATERIALS**

Bui Tien Dat, Thai Ngoc Anh, Le Thi My, Le Van Tuat (Hue University)

Buffet Lunch

Chairperson: Prof. Pham Thanh Huy (ITIMS), Prof. P. Thu Nga (IMS, VAST)

(A-27)
13:30 – 13:45

**EFFECT OF HEAT TREATMENT ON THE PROPERTIES OF
GREEN-EMISSION (La,Gd)PO₄:Tb³⁺ PHOSPHOR PREPARED
BY SOL-GEL METHOD**

*Duong Thanh Tung, Tran Trong An, Tran Ngoc Khiem, Le Anh Tuan,
Pham Thanh Huy, Pham Hong Duong (IMS-VAST)*

(A-28) 13:45 – 14:00	EFFECTS OF TiO₂-NANOPARTICLES ON OPTICAL AND ELECTRICAL PROPERTIES OF MEH - PPV / TiO₂ CONJUGATED POLYMER NANOCOMPOSITES <i>Tran Thi Chung Thuy, Le Ha Chi, Tran Hong Nhung, Nguyen Thang Long, Nguyen Kien Cuong, Nguyen Nang Dinh (Thai Nguyen University of Education)</i>
(A-29) 14:00 – 14:15	SOL-GEL SYNTHESIS OF BaMgAl₁₀O₁₇:Eu BLUE-EMITTING PHOSPHOR POWDER <i>Nguyen Manh Cuong, Tran Trong An, Le Anh Tuan, Pham Thanh Huy, Pham Hong Duong (ITIMS-Hanoi)</i>
(A-30) 14:15 – 14:30	TiO_xNy PHOTOCATALYTIC THIN FILMS FABRICATED BY EXTRA UNBALANCED MAGNETRON SYSTEM. <i>Vu Thi Hanh Thu , Nguyen Huu Chi, Le Van Hieu, Dinh Cong Truong, Pham Kim Ngoc, Le Dinh Minh Tri (Ho Chi Minh University of Science)</i>
(A-31) 14:30 – 14:45	OPTICAL CHARACTERIZATION OF DYE DOPED IN SILICA NANOSPHERES FOR BIOAPPLICATIONS <i>Vu Thi Thuy Duong, Do Quang Hoa, Nguyen Thi Van, Nghiem Thi Ha Lien, Bach Nhat Hong, J.C.Brocho, Tran Hong Nhung (IOP-VAST)</i>
(A-32) 14:45 – 15:00	SURFACE PLASMON RESONANCE OF GOLD NANORODS <i>Ngac An Bang, Phung Thi Thom, Nguyen Trong Thanh (Hanoi University of Science)</i>
(A-33) 15:00 – 15:15	INFLUENCE OF SYNTHESIS CONDITIONS ON OPTICAL PROPERTIES OF COLLOIDAL GOLD NANOPARTICLES FOR BIOMEDICAL APPLICATIONS <i>Nghiem Thi Ha Lien, Vu Xuan Hoa, Tong Kim Thuan, Nguyen Van Tinh, and Tran Hong Nhung (IOP-VAST).</i>
15:15 – 15:30	Coffee break
15:30 – 16:00	POSTER I

Chairperson: Prof. N. N. Dinh (COLTECH HN), Prof. Le Thi Thanh Binh (VNUHN)

- (A-34)
16:00 – 16:15 **EFFECT OF ANNEALING ON THE STRUCTURE AND LUMINESCENT PROPERTIES OF ZnS:Mn NANO - CRYSTALLITE**
N.T. Tuan, P.T. Huy, P.V. Tuan, T.X. Anh, T.T. An, T.N. Khiem, Nguyen Trong Tuan, L.H. Ha, N.H. Tung (College of Science, Cantho University)
- (A-35)
16:15 – 16:30 **INVESTIGATING THE STRUCTURAL AND OPTICAL PROPERTIES OF THE $\text{Zn}_{1-x}\text{Co}_x\text{O}$ FILMS PREPARED BY THE HIGH VOLTAGE SPRAY PYROLYSIS METHOD**
Nguyen Van Hung, Pham Van Ben, Pham Van Vinh, Nguyen Dinh Lam, N. The Khoi (Hanoi University of Education)
- (A-36)
16:30 – 16:45 **OPTICAL AND ELECTROCHEMICAL PROPERTIES OF $\text{La}_{0.67-x}\text{Li}_3\text{TiO}_3$ THIN FILMS GROWN BY ELECTRON BEAM EVAPORATION**
Le Dinh Trong, Do Xuan Mai, Le Ha Chi, Pham Duy Long (IMS-VAST)
- (A-37)
16:45 – 17:00 **Al_2O_3 THIN FILMS WITH NANOSCALE PATTERN PORES FORMED ON ELECTROCHEMICAL METHOD**
Giang van Phuc, Le Vu Tuan Hung, Ngo Thi Kim Hoa, T. Thi Khanh Chi, Lam Quang Vinh, Le Van Hieu, Huynh Thanh Dat (An Giang University)

September 12, 2008 (Friday)

Chairperson: Prof. Nguyen Xuan Nghia (IMS-VAST), Dr. Pham Van Ben (NHUSN)

- (A-38)
08:30 – 08:45 **PREPERATION AND STUDYING THE EFFECT OF ANNEALING ON SOME PROPERTIES OF ZnS:Cu²⁺ MATERIALS**
N.T. Van Anh, N.M. Thuy, N.T. Thanh Ngan, L.T. Hong Hai, D.T. Thuy Chi, N.M. Nghia (Hanoi University of Education)
- (A-39)
08:45 – 09:00 **PHOTOLUMINESCENT PROPERTIES OF Y₂O₃:Eu³⁺ MICROPHOSPHORS SYNTHESIZED BY SOL-GEL PROCESS**
Bui Van Hao, Do Quang Trung, Pham Thanh Huy, Nguyen Thi Thanh Ngan, Pham Hong Duong (Quynhon University)
- (A-40)
09:00 – 09:15 **LUMINESCENT MEASUREMENTS AND DECAY TIME OF SILICA TITANIA AND SILICA ZIRCONIA DOPED ERBIUM**
Le Quoc Minh, Tran Thu Huong and Tran Kim Anh (IMS-VAST)
- (A-41)
9:15 – 9:30 **OPTICAL PROPERTIES OF CuInS₂ THIN FILMS PREPARED BY SPRAY PYROLYSIS**
Tran Thanh Thai, Vo Thach Son, Vu Thi Bich, Pham Phi Hung (Hanoi University of Technology)
- (A-42)
09:30 – 09:45 **SPECTROSCOPIC AND LASER EFFECTS OF PHENYL TRIETHOXYSILANE (PhTEOS) FILMS DOPED WITH DYE MIXTURE SYSTEMS**
Vu Thi Thuy Duong, Do Quang Ho, Nghiem Thi Ha Lien, Nguyen Thi Van, Bach Nhat Hong and Tran Hong Nhung (IOP-VAST)
- (A-43)
09:45 – 10:00 **DETERMINE THE NATURE OF SOME RADIATIVE TRANSITIONS IN LUMINESCENCE POWDER ZnO PREPARED BY SOL-GEL AND SOLID STATE REACTION METHOD**
Bui Hong Van, Pham Van Ben, Phung Thi Hao (Hanoi University of Science)
- (A-44)
10:00 – 10:15 **THE EFFECT OF Co AND Cu DOPING ON THE OPTICAL AND MAGNETIC PROPERTIES OF ZnO FILMS**
Nguyen Dinh Lam, Pham Van Hai, Dang Thi Huyen Trang, Nguyen Van Hung, Pham Do Chung, Nguyen The Khoi and Luc Huy Hoang (Hanoi University of Education)
- 10:15-10:30** **Coffee break**

Chairperson: Prof. Vu Thi Bich (IOP-VAST), Prof. Huynh Thanh Dat (VNUHCM)

- (A-45)
10:30 – 10:45 **RAMAN SCATTERING STUDY OF $\text{Ga}_{1-x}\text{Mn}_x\text{As}$**
Nguyen Van Minh (Hanoi National University of Education)
- (A-46)
10:45 – 11:00 **STRUCTURAL ANALYSIS ALGINIC ACID FRACTION
EXTRACTED FROM BROWN SEAWEEDS BY USING FT-IR
SPECTROSCOPY**
*Tran Thi Thanh Van, N. Quoc Cuong, Vo Mai Nhu Hieu, Cao Thi Thuy
Hang, Bui Minh Ly (Nhatrang Institute of Technol. Research & App.)*
- (A-47)
11:00 – 11:15 **ELECTRICAL AND OPTICAL PROPERTIES OF THE HYBRID
 TiO_2 NANOCRYSTALS – MEH-PPV THIN FILMS**
*Le Ha Chi, Nguyen Nang Dinh, Pham Duy Long, Dang Tran Chien, Tran
Thi Chung Thuy (IMS-VAST)*
- (A-48)
11:15 – 11:30 **INVESTIGATING EFFECT OF POLYETHYLENGLYCOL (PEG)
ON TiO_2 TRUCTURE**
*Ha Thanh Tung, Nguyen Bich Phuong, Nguyen Thanh Nguyen
(Dong Thap University of Science)*
- (A-49)
11:30 – 11:45 **THE SYNTHESIS OF $\text{SiO}_2\text{-SnO}_2$ MATERIAL BY THE SOL -
GEL METHOD**
*Bui Thanh Si, Le Van Hieu, Lam Quang Vinh, Tran Thi Thanh Van,
Nguyen Duc Hao, Pham Thuy Bich Tuyen (VNU HCM)*
- (A-50)
11:45 – 12:00 **CONCENTRATION OF ANTIMONY DOPING EFFECTS ON
OPTICAL AND ELECTRICAL CHARACTERISTICS TCO THIN
FILM $\text{SnO}_2\text{: Sb}$**
*Le Van Ngoc, Nguyen Duc Thinh, Nguyen Thi Kim Than, Tran Tuan,
Huynh Thanh Dat (Ho Chi Minh University of Science)*

Buffer lunch

Chairperson: Prof. Duong Ai Phuong (VNUHCM), Prof. Nguyen Van Hung (HNUE)

- (A-51)
13:30 – 13:45 **A PROPERTIES COMPARIISON BETWEEN Al_2O_3 THIN FILMS
PREPARED BY RF MAGNETRON SPUTTERING AND SOL -
GEL PROCESSES**
*Giang van Phuc, Le Vu Tuan Hung, Ngo Thi Kim Hoa, Tran Thi Khanh
Chi, Lam Quang Vinh, Le Van Hieu, Huynh Thanh Dat
(An Giang University)*

(A-52) 13:45 – 14:00	INVESTIGATING STRUCTURE OF NANO TiO₂ AND COBALT DOPED TiO₂ VIA RAMAN SPECTROSCOPY <i>Ha Thanh Tung, Nguyen Bich Phuong, Nguyen Thanh Nguyen</i> (Dong Thap University of Science)
(A-53) 14:00 – 14:15	THERMOELECTRIC PROPERTIES OF Bi_{1.8}Sb_{0.2}Te_{3.0} SINGLE CRYSTALS UNDER HIGH PRESSURE <i>Ngo Thu Huong, Do Thi Kim Anh</i> (Hanoi University of Science)
(A-54) 14:15 – 14:30	SYNTHESIS OF LONG AFTERGLOW PHOSPHORS MAI₂O₄(M: Ca, Sr,Ba) CO-DOPED WITH RARE EARTH IONS BY COMBUSTION METHOD AND THEIR OPTICAL PROPERTIES <i>Nguyen Manh Son, Le Thi Thao Vien, Nguyen Ngoc Trac</i> (Quy Nhon University)
(A-55) 14:30 – 14:45	PHYSICAL PROPERTIES OF NANO-STRUCTURED CdS THIN FILMS PREPARED BY SPRAY PYROLYSIS TECHNIQUE <i>Do P. Hai, N. D. Quyet, Pham P. Hung, Nguyen T. Nga and Vo T. Son,</i> (Hanoi University of Technology)
(A-56) 14:45 – 15:00	INFLUENCE OF TEMPERATURE ON THE PHONON CHARACTERISTICS OF CdSe/CdS CORE/SHELL NANOSTRUCTURES <i>Le Ba Hai, Nguyen Xuan Nghia, Pham Thu Nga, Nguyen Thi Thu Trang</i> (IMS-VAST)
(A-57) 15:00 – 15:15	DIELECTRIC FUNTION MODELLING OF OPTICAL SPECTRA OF THIN ZnO:Ga FILMS <i>Tran Cao Vinh, Cao Thi My Dung, Ta Thi Kieu Hanh</i> (Ho Chi Minh University of Science)
15:15 – 15:30	Coffee break
15:30 – 16:00	POSTER II
16:00 – 17:00	CLOSING MEETING AT THE PLENARY SESSION

SESSION B: PHOTONICS & LASERS AND APPLICATIONS

September 10, 2008 (Wednesday)

Chairperson: Prof. P.Brechignac (LPPM, France), Prof. N. Dai Hung (IOP, VAST)

- (B-01)
13: 30 – 13: 55 **GENERATION AND APPLICATIONS OF COHERENT EXTREME ULTRAVIOLET RADIATION**
(Invited talk)
Dao Van Lap, S. Teichmann, C. Zang, P. Hannaford
(Swinburne Uni., Australia)
- (B-02)
13: 55 – 14: 20 **FEMTOSECOND FREQUENCY COMB SPECTROSCOPY**
(Invited talk)
Guy Guelachvili and Nathalie Picque (LPPM, Paris-11 Uni., France)
- (B-03)
14: 20 – 14: 45 **SYNCHRONIZATION, NOISE AND COHERENCY IN LASERS**
(Invited talk)
Pascal Besnard, J.F. Hayau, Q.T. Nguyen, V. Roncin, O. Vaudel
(ENSSAT, Lannion, France)
- (B-04)
14: 45 – 15: 00 **EFFICIENT FREE-SPACE OPTICAL PUMPING OF A DEFORMED MICRO-CAVITY LASER**
Juhee Yanga, S. B Leeb, S. Moona. S.Y. Leea, J.B.Shimc, S. W. Kimd, J. H. Leea, K. Ana (SNU, Korea)
- (B-05)
15: 00 – 15: 15 **FEMTOSECOND SUPERCONTINUM GENERATED IN SUB-CM PHOTONIC CRYSTAL FIBER: APPLICATION TO BROADBAND ULTRAFAST SPECTROSCOPY**
N. Le Cong, J. Leonard, O. Cregut, P. Leproux, P. Viale, V. Couderc, S. Haacke (IPCMS-GONLO, Strasbourg, France)
- 15: 15 – 15: 30** **Coffee break**

Chairperson: Prof. Hanjo Lim (Ajou Uni., Korea) Prof. Tran Ba Chu (CMSTT)

- (B-06)
15: 30 – 15: 55 **NATURE AND EVOLUTION OF SMALL INTERSTELLAR DUST PARTICLES**
(Invited talk)
Philippe Brechignac, C. A. Tuan, Y. Carpentier, T. Pino, E. Dartois and d'Hendecourt (LPPM, Paris-11 Uni., France)
- (B-07)
15: 55 – 16: 20 **DIAL REMOTELY SENSED ETHYLENE AND OZONE IN FRESENCE OF NITROGEN OXIDE**
(Invited talk)
Taieb Gasmi (Saint Louis University, Madrid, Spain)
- (B-08)
16: 20 – 16: 45 **VIBRATIONAL DYNAMICS OF HYDROGEN-BONDED SYSTEMS AS PROBED BY PHOTON ECHOE: FROM MODEL SYSTEMS TO BIOLOGICAL MOLECULES**
(Invited talk)
Wutharath Chin, P. Carcabal, M. Broquier, C. Crepin Gilbert. (LPPM, Paris-11 University, France)
- (B-09)
16: 45 – 17: 00 **DEVELOPMENT OF A LIDAR SYSTEM FOR AEROSOL INVESTIGATIONS. AEROSOL PARAMETERS FROM THE INVERSION OF LIDAR DATA: RESULTS FROM NUMERIC SIMULATION**
Dinh Van Trung, N. T. Binh, N. V. Thuong, V.T. T. Thuy, N. V. Hai, V. T. Bich and N. Dai Hung (IOP, VAST)

September 11, 2008 (Thursday)

Chairperson: Prof. Yusaburo Segawa (RIKEN, Japan), Prof. N. The Binh (VNUH)

- (B-10)
08: 30 – 08: 55 **DIFFUSION REACTION OF BATERIOPHAGES INSIDE BIOFILMS: A DYNAMIC APPROACH USING FLUORESCENCE CORRELATION SPECTROSCOPY**
(Invited talk)
Marie Pierre Fontaine-Aupart et al. (LPPM, Paris-11 Uni.,France)
- (B-11)
08: 55 – 09: 20 **STEADY STATE AND TIME RESOLVED LUMINESCENCE OF QUANTUM DOTS UPON ONE AND TWO PHOTON EXCITATION**
(Invited talk)
Jean-Claude Brochon, Na Li, V. Duc Chinh, P Thu Nga, E. Henri, Tran H. Nhung (ENS de Cachan, France)
- (B-12)
09: 20 – 09: 45 **MULTIMODE SURFACE PLASMON RESONANCE IMAGING AS A CHARACTERIZATION INSTRUMENT FOR BIOMOLECULAR SUFARCE INTERACTIONS.**
(Invited talk)
Michael Canva, J. Moreau, G. Roger et al. (IOTA, Orsay, France)
- (B-13)
09: 45 – 10: 10 **IMAGING THROUGH TURBID MEDIA WITH AN INTERFEROMETRIC MEASUREMENT OF TIME- RESOLVED DIFFUSE LIGHT**
(Invited talk)
J.M. Tuanle, Eric Tinet, D. Etti, K. Zarychta, N. H. Lien, S. Avriillier (Laboratory for Laser Physics, Paris-13 Uni. France)
- 10: 10 -10: 25** **Coffee break**

Chairperson: Prof. J.C. Brochon (Cachan,France), Prof. Pham Van Hoi (IMS, VAST)

- (B-14)
10: 25 – 10: 50 **OPTICAL AND ELECTRICAL PROPERTIES OF ZnO AND RELATED HETERO-STRUCTURES**
(Invited talk)
Yusaburo Segawa (RIKEN, Japan)

(B-15)
10: 50 – 11: 15

CATHODE LUMINESCENCE STUDIES OF ZnO NANO-STRUCTURES

(Invited talk)

Soonil Lee, J. Liu, K.H. Park (Ajou Uni., Korea)

(B-16)
11: 15 – 11: 40

DOT-TO-WELL TRANSITION IN InAs/InGaAs DOTS-IN-A WELL PROBED VIA PHOTOCURRENT AND ELECTRO-LUMINESCENCE SPECTROSCOPY

(Invited talk)

M. Defensor, V. Magusara, E. Estacio, C. Mateo, A. Somintac, A. Salvador (National Institute of Physics, Philippines)

(B-17)
11: 40 – 12: 05

OPTICAL PROPERTIES OF THE CdSe/ZnS QUANTUM DOTS IN DIFFERENT ENVIROMENT AND EFFECT OF THE TEMPERATURE ON THEIR PHOTOLUMINESCENCE

Vu Duc Chinh, P.Thuy Linh, D. H Cuong, N. X. Nghia, L. B Hai, Pham Thu Nga, Vu T. Bich et al. (IMS, VAST)

Buffet Lunch

Chairperson: Prof. Soonil Lee (Ajou Uni., Korea) Prof. Dinh Xuan Khoa (Vinh Uni.)

(B-18)
13: 30 – 13: 55

COOPERATIVE ENHANCEMENT OF CHANNELING OF EMISSION FROM ATOMS INTO A NANOFIBER

(invited talk)

Famlekien and K. Hakuta (Electro-Communications Uni.,Tokyo, Japan)

(B-19)
13: 55 – 14: 20

MODE CONVERSION IN A TRANSITION LAYER BETWEEN POSITIVE-INDEX AND NEGATIVE INDEX MEDIA

(Invited talk)

Kihong Kim and Hanjo Lim (Ajou Uni, Korea)

(B -20)
14: 20 – 14: 40

LARGE-SIZED ZINC OXIDE SINGLE CRYSTAL GROWN BY THE HYDROTHERMAL METHOD AS FAST SCINTILLATOR FOR FUTURE EXTREME ULTRAVIOLET LITHOGRAPHY

(Invited talk)

Nobuhiko Sarukura, T. Nakazato et al (Osaka Uni. Japan)

(B-21)
14: 40 – 15: 00

A STUDY OF AVALANCHE PHOTODIODE AS SINGLE PHOTON DETECTOR

(Invited talk)

Siew Li Tan and D.Sheng Ong (Multimedia Uni. Malaysia)

15: 00 – 15: 15 Coffee break

POSTER I

Chairperson: Prof. Nobuhiko Sarukura (Osaka Uni.,Japan) Prof. Ta Van Tuan (Nacentech.)

- (B- 22)
15: 35 – 16: 00 DIGITAL HOLOGRAPHIC IMAGING OF REFLECTIVE OBJECTS WITH INFRARED LASER
(Invited talk)
P.K.Buah Bassuah, R. Meucc. F. Tito Arcchi, L. Micio, S. Grilli, P. Ferraro and S.De Nicola (Cape Coast Uni., Ghana)
- (B- 23)
16: 00 – 16: 15 A SIMULATION BASED DESIGN OF A CCD IMAGE SENSOR FOR 100 Mfps VIDEO CAMERA
C. Vo Le. H. D. Nguyen, V.T.S. Dao. K. Takehara, T. T.G. Etoh, T.Akino, K. Nishi, K. Kitamura, T Arai et al. (Kinki Uni., Japan)
- (B- 24)
16: 15 – 16: 30 BIREFRINGENCE AND PHONON-MODE ABSORPTION OF A BBO CRYSTAL IN THE TERAHERTZ REGION
E. Estacio, S. Saito, T. Nakazako, P Hong Minh, M. Cadatal, H. Mizuseki, Y. Kawazoe and N. Sarukura (Osaka Uni. Japan)
- (B-25)
16: 30 – 16: 45 PARTICLE SWARM OPTIMIZATION FOR TERAHERTZ FILTER DESIGN
Hai Dang Ngo, Sangin Kim and Hanjo Lim (Ajou Uni. Korea)
- (B-26)
16: 45 – 17: 00 ESTIMATION OF DRIVING VOLTAGE ATTENUATION OF AN ULTRA HIGH SPEED IMAGE SENSOR BY DIMENSIONAL ANALYSIS
Dao Vu T. Son, C. Vo Le. H. D. Nguyen, K. Takehara, T. T.G. Etoh, T.Akino, K. Nishi (Kinki Uni., Japan)
- (B- 27)
17: 00 – 17: 15 EVALUATION OF AN IMAGE SENSOR WITH SUB TEN PHOTON SENSITIVITY AND ULTRA-HIGH-FRAME RATE
H. D. Nguyen, C. Vo Le., Dao Vu T. Son, M. Tanaka, K. Takehara, T. T.G. Etoh, Y. Kondo, M. Maruno et al. (Kinki Uni., Japan)

September 12, 2008 (Friday)

Chairperson: Prof. FamLeKien (Tokyo, Japan), Prof. Tran Tuan (VNUHCM)

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| <p>(B-28)</p> <p>08: 30 – 08: 55</p> | <p>EXPERT SYSTEM TO IDENTIFY THE SPOTS OF POLLUTANTS ON THE WATER SURFACE (ON THE BASIS MULTI-CHANNEL SPECTROPOLARIMETER –MSP)</p> <p>(Invited talk)</p> <p><i>F.A. Mkrtchyan, V.F.Krapivin, V.I. Kovalev, V.V. Klimov</i>
 <i>(Institute of Radioengineering Electronics, Moscow, Russia)</i></p> |
| <p>(B-29)</p> <p>08: 55 – 09: 10</p> | <p>ZERO GROUP VELOCITY BASED ON NEGATIVE REFRACTION IN PHOTONIC CRYSTALS</p> <p><i>Q. M. Ngo, Sangin Kim and Hanjo Lim (Ajou University, Korea)</i></p> |
| <p>(B-30)</p> <p>09: 10 – 09: 25</p> | <p>ANGLE TUNED SINGLE RESONANCE OSCILLATOR WITH LiNbO_3 CRYSTAL</p> <p><i>Tran Ba Chu, N.Trong Tuan (Hanoi Institute of Electro– Comm)</i></p> |
| <p>(B-31)</p> <p>09: 25 – 09: 40</p> | <p>ULTRA-NARROW SPECTRA LASER IN MICRO-CAVITY: FABRICATION METHOD AND LASING EMISSION PROPERTIES</p> <p><i>Bui V. Thien, Ha Xuan Vinh, Chu T.Thu Ha, Tran T. Cham, <u>P.Van Hoi</u></i>
 <i>(IMS, VAST)</i></p> |
| <p>(B-32)</p> <p>09: 40 – 09: 55</p> | <p>STUDY AND APPLY ACTIVE ELEMENT MATERIAL QE-7S FOR ACTIVE MEDIUM OF ERBIUM-GLASS LASER</p> <p><i>Giang Manh Khoi, Ta Van Tuan, Trinh Dinh Chien (VNU Hanoi)</i></p> |
| <p>(B-33)</p> <p>09: 55 – 10: 10</p> | <p>ULTRAVIOLET LASER FROM A MICRO-PULLING DOWN METHOD GROWN $\text{Ce}^{3+}:\text{LiCaAlF}_6$</p> <p><i>Pham Hong Minh, C. Marilou, T. Toshihiro, E. Elmer, Y. Furukawa, N. Tomoharu, N. Sarakura et al. (Osaka Uni., Japan)</i></p> |
| <p>(B-34)</p> <p>10: 10 – 10: 25</p> | <p>ALL-SOLID COMPACT AND HIGH REPETITION RATE PICOSECOND UV LASER SOURCE</p> <p><i>Do Q. Khanh, N. Trong Nghia, N. Dinh Hoang, N. Xuan Tuan and N. Dai Hung (IOP, VAST)</i></p> |
| <p>10: 25 – 10: 40</p> | <p>Coffee break</p> |

Chairperson: Prof. DaoVanLap (Swinburne Uni.,) Prof. Ho Quang Quy (CMSTT)

- (B-35)
10: 40 – 10: 55 **CHARACTERISTICS OF SEMICONDUCTOR OPTICAL AMPLIFIER FOR ALL - OPTICAL REGENERATION**
M.N. Ngo, M. Gay, L. Bramerie, G. Girault, Q.T.Le, J.C. Simon, R. Brenot, G.H. Duan, D.Reid, L.Barry (ENSSAT, Lannion, France)
- (B-36)
10: 55 – 11: 10 **1550 NM INGAASP/INP SPORT SIZE CONVERTOER SEMICONDUCTOR OPTICAL AMPLIFIER MODULES AND SOME THEIR APPLICATIONS**
Vu D. Mien, V.T.Nghiem, D Q Trung, P. V. Truong, T. Q. Cong (IMS. VAST)
- (B-37)
11: 10 – 11: 25 **A THREE-DIMENSIONAL NON-PARAXIAL BEAM PROPAGATION METHOD USING COMPLEX JACOBI ITERATION**
Khai Q. Le, Peter Bienstman, R.Godoy-Rubio, G.Ronald Hadley (University of Ghent, Belgium)
- (B-38)
11: 25 – 11: 40 **WDM COMPATIBLE 2R AND 3R REGENERATION BASE ON SATURABLE ABSORBER**
Q.T .Le, L.Bramerie, S.Lobo, M.Gay, V.Roncin, M.Joindot, J-C.Simon, A.Poudoulec, M. Vander Keur, C.Devemy, D.Massoubre, J-L.Oudar, G.Aubin, A.Shen et al. (ENSSAT, France)
- (B-39)
11: 40 – 11: 55 **STUDY OF FIBEROPTIC ADD-DROP DEVICES USING FIBER-BRAGG-GRATING**
P.T. Binh, P.V. Hoi, P.D.Long, N.D.Trung, N.N.Quang, T.V. Hung (IMS, VAST)
- (B-40)
11: 55 – 12: 10 **ANALYSIS OF SNOM TIP APERTURE BY FAR-FIELD INTENSITY DISTRIBUTION**
E.B. Yakovlev, V.P. Veiko, V.K. Kirillovski. N.V. Varkentina, Le D.T., Zuong C.Z. (Saint-Peterbourg Uni., Russia)

Buffet Lunch

Chairperson: Prof. Trinh Dinh Chien (VNUH) Prof. Vu Doan Mien (IMS,VAST)

- (B-41)
13: 30 – 13: 55 **LINEAR AND NONLINEAR OPTICS WITH A SINGLE METAL NANOPARTICLE**
(Invited talk)
H.Baida, D. Christofilos, A.Crut, P.Maioli, N.Del Fatti and F. Vallee (LASIM Universite' Lyon 1, France)
- (B-42)
13: 55 – 14: 10 **RANDOM MICROLASER EXCITED BY THE THIRD HARMONIC OF Nd:YAG LASER**
P.V. Thin, N. Bich Hanh, Dinh T. Yen, N. The Binh (VNU Hanoi)
- (B-43)
14: 10 – 14: 25 **INVESTIGATION OF SOLUTION TRANSMISSION IN OPTICAL FIBERS USING DISPERSION MANAGEMENT TECHNIQUES**
Dinh X. Khoa, Bui D. Thuan, T. Manh Hung (Vinh Uni., VN)
- (B-44)
14: 25 – 14: 40 **STABLE MANIPULATION DIELECTRI SPHERE OF OPTICAL TRAPPING BY TWO COUNTER PROPAGATING GAUSSIAN PULSED BEAMS**
Ho Quang Quy and Mai Van Luu (Vinh Uni., VN)
- (B-45)
14: 40 – 14: 55 **COLORLESS COMPONENTS FOR WDM-BASED OPTICAL ACCESS NETWORKS**
Q.T. Nguyen, O. Vaudel, G. Girault, P. Besnard, L.Bramerie, A.Shen, G.H.Duan, C. Kazmierski, S. Lobo, M. Joindot, J-C.Simon, N.Dupuis, A. Garreau, Z.Belfqih, P.Chanclou (ENSSAT, France)
- 14: 55 – 15: 10** **Coffee break**
- 15: 10 – 16: 00** **POSTER II**
- 16: 00 – 17: 00** **CLOSING MEETING AT THE PLENARY SESSION**

SESSION C: APPLIED OPTICS, PHOTONICS AND APPLICATIONS

September 10, 2008 (Wednesday)

Chairperson: Prof. Nguyen The Khoi (HNUE), Prof. Tran Tuan (VNUHCM.)

- (C-01)
13:30 - 13:45 **A NEW METHOD TO ENHANCE DYNAMIC RANGE OF THE
NORMAL CAMERAS FOR PRECISE MEASUREMENT OF
POINT SPREAD FUNCTION OF OPTICAL SYSTEMS**
*Le Duy Tuan, V.K. Kirillovski, Lê Hoang Hai, Duong Chi Dung, Nguyen
Hung Van (Le Quy Don Technical University)*
- (C-02)
13:45 - 14:00 **CAPACITIVE MEASUREMENT OF CATHODE FALL IN
FLUORESCENT LAMPS UNDER LOW FREQUENCY
OPERATION**
*Le Anh Tu, Pham Hong Duong, Do Xuan Thanh and Pham Hong Chi
(IMS- VAST)*
- (C-03)
14:00 - 14:15 **INVESTIGATION OF TEMPERATURE DISTRIBUTION ON
COILED ELECTRODE OF ARGON MERCURY DISCHARGE
LAMP USING SPATIAL RESOLVED SPECTROSCOPY**
*C.A. Tuan, N.T.T.Ngan, D.X. Thanh, P.H. Duong, N.D.Thang
(IMS-VAST)*
- (C-04)
14:15 - 14:30 **TWO-PHOTON FLUORESCENCE EXCITATION OF
BIOMEDICAL FLUOROPHORES BY DIODE-PUMPED
PASSIVELY MODE-LOCKED ND:YVO₄ LASER**
*Nguyen Trong Nghia, Nguyen Dinh Hoang, Nguyen Thanh Binh, Do
Quoc Khanh and Nguyen Dai Hung (IOP-VAST)*
- (C-05)
14:30 - 14:45 **INVESTIGATION OF BACTERIAL INHIBITION EFFECT OF
NITROGEN LASER ON THE BURN WOUND**
Nguyen Trong Luu (Military Central Hopital)
- (C-06)
14:45 - 15:00 **TREATMENT OF HEMANGIOMA OF THE NECK-FACIAL
AREA USING 595 nm PULSED-DYE LASER**
*Nguyen The Hung, Pham Huu Nghi, Do Thien Dan, Le Huu Minh and
Pham Long (Military CentralHopital)*

- (C-07)
15:00 – 15:15 **EXPERIMENTAL STUDIES OF EVAPORATION AND SIDE-EFFECT ACTIONS BY FAMOUS LASER APPARATUSES FOR SURGERY ON BIOLOGICAL TISSUES**
N.Cong. Thanh, N.Ha. Khoa, P.D. Tu, C.D. Thuy, P.H. Nghi, N.T. Hung, D.T. Dan, L.H. Tuan, N.T. Binh (IOP-VAST)
- 15 – 15: 30** **Coffee break**
- Chairperson: Prof. Huynh Thanh Dat (VNUHCM), Prof. N. Tho Vuong (Hue Uni.)**
- (C-08)
15:30 – 15:45 **CW-CO₂ GAS LASER USING DRY ICE AND ADDITIVES**
N.T. Vuong, N.V. Tao, Nguyen Van Suu, Pham Vinh (Hue University)
- (C-09)
15:45 – 16:00 **THE THERMOLUMINESCENCE CHARACTERISTICS OF LIF (Mg,Cu,P) IN MEASURING GAMMA RAY BY THE RGD-3A READER**
Hoang Duc Tam, Thai Khac Dinh, Nguyen Quang Mien, Bui Van Loat (Ho Chi Minh University of Education)
- (C-10)
16:00 – 16:15 **COMPARISON OF TRAP ENERGY SPECTROSCOPY OF CaSO₄: Dy AND Al₂O₃: C BY FRACTIONAL GLOW TECHNIQUE**
Huynh Ky Hanh, Vinh Hao, Bui The Huy, Tong Van Tuat, Dinh Van Kinh (Nha trang Institute of Tech.Research & Appl.)
- (C-11)
16:15 – 16:30 **SIMULATION OF THE TRANSPORT OF SPUTTERED PARTICLES FROM TARGET TO SUBSTRATE IN DC MAGNETRON SPUTTERING BY MONTE CARLO METHOD**
Le Son Hai, Le Vu Tuan Hung, Huynh Thanh Dat, Duong Ai Phuong, Giang Van Phuc (ĐH SPKT-TpHCM)
- (C-12)
16:30 – 16:45 **NGHIÊN CỨU CHẾ TẠO LỚP PHỦ BẢO VỆ BỀ MẶT CHO KÍNH MÁT PLASTIC CR39**
Pham Hong Tuan, Dang Xuan Cu, Nguyen Tuan Vu (Nacentech)
- (C-13)
16:45 – 17:00 **PREPARATION AND SPECTROSCOPIC CHARACTERIZATION OF CHITOSAN NANOSPHERES CROSS-LINKED WITH CURCUMIN**
Nghiem Thi Ha Lien, N. Thanh Binh, Tran Thanh Luong, Vu Thi Bich (IOP-VAST)

September 11, 2008 (Thursday)

Chairperson: Dr. Nguyen The Hung (108 Hospital), N. Cong Thanh (IOP-VAST)

- (C-14)
08:30 - 08:45 **PREPERATION AND APPLICATIONS OF LUMINESCENT NANOMATERIALS**
Tran Kim Anh , Dinh Xuân Loc, Pham Hong Duong, Chu Anh Tuan, Le Minh Anh Tu and Nguyen Vu (IMS-VAST)
- (C-15)
08:45 – 09:00 **POROUS SILICON AS A LOW-DIMENSIONAL AND OPTICAL MATERIAL**
Bui Huy, Pham Van Hoi, Do Khanh Van, Tran Thi Cham (IMS-VAST)
- (C-16)
09:00 – 09:15 **PREPARATION OF GOLD NANOPARTICLES BY LASER ABLATION**
Nguyen The Binh, Do Thi Ly, TrinhThi Hue, LeTu Quyen (Hanoi University of Science)
- (C-17)
09:15 – 09:30 **APPLICATION FBG SENSORS in the STRUCTURAL HEALTH MONOTORING of BUILDING**
Tran Anh Vu, Dang Quoc Trung, Le Huu Minh (IMS-VAST)
- (C-18)
09:30 – 09:45 **LIGHT EMITTING DEVICE BASED ON SILICON RICH SILICON DIOXIDE THIN FILM**
N.T.Thanh Ngan, P.H. Duong, P.T. Huy, V.V. Thu and C.A. Tuan (IMS-VAST)
- (C-19)
09:45 – 10:00 **GAS-SENSING BEHAVIORS OF ZnO:Al THIN FILM FABRICATED BY SOL-GEL ROUTE**
Tran Tuan, Tran Quang Trung, Le Thi MyHanh, Dinh Van Khoi (HoChi Minh University of Science)
- (C-20)
10:00 – 10:15 **TIME-RESOLVED LUMINESCENCE SPECTRUM MEASUREMENT USING NITROGEN LASER AND DIGITAL OSCILLOSCOPE**
Do Xuan Tien, Nguyen The Binh, Pham Van Thin (Hanoi University of Science)
- 10:15 – 10:30** **Coffee break**

Chairperson: Dr. Pham Hong Duong (IMS-VAST), Dr. N. Trong Luu (108 Hospital)

- (C-21)
10:30 – 10:45 **RESEARCHING, DESIGNING HIGH TEMPERATURE FURNACE SYSTEM WITH CONTROLLED AND PROGRAMED TEMPERATURE LEVEL USED FOR HEATING, ANNEALING LUMINESCENCE POWDER**
Nguyen Duy Tien, N. T. Long, P. V. Ben, N. T. Binh (Centre for Microelectronics and Information Technology, Thanh Xuan, Hanoi)
- (C-22)
10:45 – 11:00 **STUDY AND DEVELOPMENT AN ACTIVE OPTICAL SYSTEM WITH BRIGHTNESS AMPLIFIER OF COPPER VAPOR LASER FOR APPLYING IN SCIENCE, BIO-MEDICINE AND TECHNOLOGY**
Nguyen Tien Tuan, Ho Quoc Khanh, Nguyen Cong Thanh and Chu Dinh Thuy (IOP-VAST)
- (C-23)
11:00 – 11:15 **A STUDY OF MANUFATURING BURNING MIXTURE WITH INFRARED RADIATION OF 3÷5µm AND 8÷12µm WAVE RANGE**
Tran Minh Cong, Le Trong Thiep, Tran Ba Chu, Pham Trong Hien (NEWTECSPRO, Hanoi)
- (C-24)
11:15 – 11:30 **THE SIMULATION STUDIES OF THE LASER PROPAGATION IN COAL MINING**
Bui Thi Thanh Lan, Le Hong Khiem, Pham Van Ben, Nguyen Anh Minh (University of Geology-Mine)
- (C-25)
11:30 – 11:45 **DESIGN FLUORESCENCE MEASURER SYSTEM DUE TO THE FOUNDATION OF OPTIC - ELECTRONIC CHANGE: LED- PD WHICH CONNECTED TO KEITHLEY MODEL 2000 MULTIMETER**
Pham Vinh, Ngo Khoa Quang, Lê Xuan Diem Ngoc (Hue University)
- (C-26)
11:45 – 12:00 **THE PHOTOCATALYSIS OF H₂O ABSORPTION ON TiO₂ RUTILE (110) STUDIED BY FIRST-PRINCIPLES CALCULATIONS**
Dinh Son Thach, Nguyen Doan Thanh Vinh (Tien Giang University)

SESSION D: INSTRUMENTS AND METHODS FOR EDUCATION AND TRAINING

September 11, 2008 (Thursday)

Chairperson: Prof. N. The Khoi (EUHN), Dr. N. Thi Thu Thuy (Cantho Uni.),

- (D-01)
13: 30 – 13:50 **SOME WAYS IN ENVIRONMENTAL EDUCATION AFTER
TEACHING PHYSICS OF THE TENTH CLASS IN HIGH
SCHOOL OF CANTHO CITY**
*Nguyen Thi Thu Thuy , Duong Bich Thao, Do thi Phuong Thao,
Nguyen Hong Nhung (Cantho University)*
- (D-02)
13: 50 – 14:10 **SOME PROBLEMS IN IMPROVING CURRICULUM OPTICS IN
TRAINING OF PHYSICS TEACHERS OF EDUCATIONAL
FACULTY OF CANTHO UNIVERSITY WHEN APPLYING
CREDIT PROGRAM**
*Nguyen Huu Khanh, Nguyen Thi Thu Thuy , Nguyen Hong Nhung,
Le chi Hieu, Ho Minh Nhut (Hue University)*
- (D-03)
14: 10 – 14: 30 **A SOFTWARE TO COMBINE MULTICHOICES TEST PAPER**
Giang Van Phuc, Le Van Hieu, Huynh Thanh Dat (AnGiang University)
- (D-04)
14: 30 – 14: 50 **OBSERVATION OF DIFFERENT RESONATOR MODES WITH
A SIMPLE WEBCAM (AN ALL SOLID LASER KIT FOR THE
PHOTONIC AND LASER TRAINING)**
*N. Trong Nghia, Do Quoc Khanh, Trinh Dinh Huy, N. Dinh Hoang,
N. Dai Hung (IOP-VAST)*
- 14: 50 – 15: 05** **Coffee break**
- 15: 05 – 16: 00** **POSTER I**
- 16: 00 – 17: 00** **LIDAR AND LIBS (LASER - INDUCED BREAK DOWN
SPECTROSCOPY) - PART I**
Emeric Frejafon (INERIS. France)

September 12, 2008 (Friday)
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Chairperson: Prof. Chu Dinh Thuy (IOP-VAST), Dr. Dang Xuan Cu (Nacentech)

- (D-05)
08: 30 – 09: 00 **HIGH PRECISION LASER INTERFEROMETER FOR APPLICATION IN GRAVITATIONAL WAVE DETECTORS**
W. Vodel (Institut für Festkörperphysik, FSU Jena-Germany)
- (D-06)
09: 00 – 09: 30 **MIKROWELLEN IN DER WERKSTOFFTECHNIK - ENERGIEEINSPARUNG UND EFFIZIENZSTEIGERUNG DURCH VOLUMETERISCHE ERWÄRMUNG**
J.Bossert (Friedrich-Schiller-University Jena, Institute of Material, Germany)
- (D-07)
09: 30 – 10: 00 **MAGNETOOPTICAL GARNET FILMS: PREPARATION, CHARACTERIZATION, APPLICATION**
P.Görnert (INNOVENT e.V., Jena, Germany)
- (D-08)
10: 00 – 10: 30 **ELECTROMAGNETIC SHIELDING FOR ENVIRONMENTAL PROTECTION**
P.Görnert (INNOVENT e.V., Jena, Germany)
- 10: 30 – 10: 45** **Coffee Break**

Chairperson: Prof. H. G. Walther (Jena, Germany), Prof. D. Ai Phuong (VNUHCM)

- (D-09)
10: 45 – 11: 15 **GAS SENSING IN INDUSTRIAL PROCESSES BY OPTICAL SPECTROSCOPY**
Andreas Schleicher (SciTec, Fachhochschule Jena, Germany)
- (D-10)
11: 15 – 11: 45 **AEROSOL MEASUREMENT BY OPTICAL METHODS**
Andreas Schleicher (SciTec, Fachhochschule Jena, Germany)
- (D-11)
11: 45 – 12: 15 **ENABLING TECHNOLOGY OF EXTREME ULTRAVIOLET LIGHT SOURCE FOR MANUFACTURING OF SUPER FAST SEMICONDUCTOR CHIPS**
Tran Duc Chinh (Extreme technologies GmbH, Göttingen, Germany)

Buffer Lunch

Chairperson Prof. T. D. Chinh (Germany), Dr. N. Huu Khanh (Cantho Uni.)

(D-12) 13: 30 – 14: 00	MODERN OPTICAL COMMUNICATION <i>Volkmar Brückner (Hochschule für Telekommunikation Leipzig)</i>
(D-13) 14: 00 – 14: 30	BASICS AND VISIONS IN NANOOPTICS <i>Bernhard Kley (Hochschule für Telekommunikation Leipzig, Germany)</i>
(D-14) 14: 30 – 15: 00	LIDAR AND LIBS (LASER - INDUCED BREAK DOWN SPECTROSCOPY) - PART II <i>Emeric Frejafon (INERIS. France)</i>
15:00 – 15: 15	Coffee break
15:15 – 16: 00	POSTER II
16: 00 – 17 :00	CLOSING MEETING AT THE PLENARY SESSION

POSTER I

P1-01. A NOVEL SPLIT-STEP FOURIER METHOD TO SOLVE THE NONLINEAR SCHRÖDINGER EQUATION WITH A GIVEN ACCURACY

Thanh Nam Nguyen, Thierry Chartier and Trung Hieu Bui (ENSSAT, France)

P1-02. TWO-STOKES GENERATION IN RAMAN MICROCHIP AND MINI - LASERS: SEMI-CLASSICAL MODEL AND EXPERIMENT

S.V. Voitikov, A.S. Grabtchikov, A.A. Demidovich, M.B. Danailov and V.A. Orlovich (B.I. Stepanov Institute, Belarus)

P1-03. OPTIMIZATION OF PUMPING PARAMETERS FOR THE THULIUM-DOPED FIBER AMPLIFIERS

M.A. Khodasevich, S.A. Koval, G.V. Sinitsyn (B.I. Stepanov Institute, Belarus)

P1-04. SOLID-STATE SOURCES OF HIGH ENERGY AND HIGH AVERAGE POWER RADIATION BASED ON RAMAN CONVERSION OF Nd:YAG LASERS

V.A. Orlovich, H.J. Eichler, V.A. Lisinetskii (B.I. Stepanov Institute, Belarus)

P1-05. OXYFLUORIDE GLASS-CERAMICS AS HOST MATERIAL FOR ERBIUM-DOPED FIBER AMPLIFIERS: ULTIMATE INFORMATION CHARACTERISTICS

M.A. Khodasevich, Y.A. Varaksa (B.I. Stepanov Institute, Belarus)

P1-06. TWO STOKES GENERATION IN DIODE PUMPED MICROCHIP LASER

P.V. Shpak, A.A. Demidovich, M.B. Danailov, A.S. Grabtchikov, V.A. Orlovich (B.I. Stepanov Institute, Belarus)

P1-07. POSSIBLE APPLICATIONS OF TM:KYW LASER IN MICROSURGERY

L.E. Batay, A.A. Demidovich, A.I. Vodchits, and V.A. Orlovich, N.B. Gorbunova, T.V. Kuznetsova et al. (B.I. Stepanov Institute, Belarus)

P1-08. QUANTUM-MECHANICAL THEORY AND EXPERIMENT ON INTRACAVITY TRANSIENT RAMAN CONVERSION AND MULTI-WAVE MIXING IN Q-SWITCHED MICROCHIP LASERS

S.V. Voitikov, A.S. Grabtchikov, A.A. Demidovich, M.B. Danailov and V.A. Orlovich (B.I. Stepanov Institute, Belarus)

P1-09. ON LASING CONDITIONS IN SiO₂ OPAL MATRICES FILLED WITH A DYE SOLUTION

G.V. Sinitsyn, A.V. Lyakhnovich, N.A. Saskevich, S.P. Apanasevich, T.T. Basieva, Yu.V. Orlovskii et al. (B.I. Stepanov Institute, Belarus)

P1-10. ON THE EFFICIENCY OF TERAHERTZ EMISSION CAUSED BY THE OPTICAL RECTIFICATION OF FEMTOSECOND LASER PULSES IN ELECTROOPTIC SEMICONDUCTOR CRYSTALS

A.M. Goncharenko, V.L. Malevich, G.V. Sinitsyn (B.I. Stepanov Institute, Belarus)

P1-11. OPTICAL DATA PROCESSING DUE TO CONTROLLED SWITCHING WAVES IN NONLINEAR INTERFEROMETERS WITH A SPECIFIED PATTERN OF OPTICAL THICKNESS

*A.M.Goncharenko, G.V.Sinitsyn, A.V.Lyakhnovich, S.P.Apanasevich
(B.I. Stepanov Institute, Belarus)*

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