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Part I SOPO 2009 Conference Schedule

Registration August 14~16, 2009

Registration Time	Date	Location:
9:00-20:00	August 14 th , 2009	1 st floor, Lobby, Hong Yi Hotel, Wuhan
9:00-18:00	August 15 th , 2009	1 st floor, Lobby, Hong Yi Hotel, Wuhan
9:00-17:00	August 16 th , 2009	1 st floor, Lobby, Hong Yi Hotel, Wuhan

Saturday Morning, August 15

Time	Activity	Location: 4 th floor, You Rong Tang(有容堂), Hong Yi Hotel, Wuhan
8:30-9:00	Opening Ceremony (Chair: Prof. Wen Liu , Wuhan Research Institute of Post and Telecommunication, China)	
9:00-10:20	Plenary Speech: Monolithic Semiconductor Photonic Circuits – the Route to the Future Speaker: Prof. John Marsh (IEEE Photonics Society, UK) Time: 9:00-9:40	
	Plenary Speech: Fiber Based Photovoltaics Speaker: Prof. David L. Carroll (Wake Forest University, USA) Time: 9:40-10:20	
10:20-10:40	Coffee Break	
10:40-12:00	Plenary Speech: Simulation of Optoelectronic Devices from Coupled Two Photonic Heterostructures Speaker: Prof. Mahi R. Singh (University of Western Ontario, Canada) Time: 10:40-11:20	
	Plenary Speech: Preparation of Semi-Insulating GaN Templates for AlGaIn/GaN Heterostructures Speaker: Prof. Chang Liu (Wuhan University, China) Time: 11:20-12:00	

Saturday Noon, August 15

12:00 – 13:30	Lunch Buffet	Location: 1 st floor, Blue café Western Restaurant (蓝色港湾), Hong Yi Hotel
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Saturday Afternoon, August 15

Time	Activity (Coffee Break 15:20 – 15:40)	Location (4 th floor, Hong Yi Hotel)
	Oral Session 1: Laser Technology and Applications	Bo Ya Zhai (博雅斋)
14:00 – 17:30	Oral Session 2: Optics & Optoelectronics in Biology and Medicine	Zi Lan Zhai (滋兰斋)
	Oral Session 3: Optical Communication and Sensors	Xie Ying Zhai (掀英斋)

Saturday Evening, August 15

18:30 – 20:00	Welcome Banquet	Location: 2nd floor, Hu Guang Xuan Chinese Restaurant (湖光轩), Hong Yi Hotel
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Sunday Morning, August 16

Time	Activity (Coffee Break 10:00 – 10:20)	Location (4th floor, Hong Yi Hotel)
	Oral Session 4: Basic Theory and New Concept	Bo Ya Zhai (博雅斋)
8:30 – 12:00	Oral Session 5: New Optoelectronic Device Materials and Processing	Zi Lan Zhai (滋兰斋)
	Oral Session 6: Optoelectronic Devices and Integration	Xie Ying Zhai (撷英斋)

Sunday Noon, August 16

12:00 – 13:30	Lunch Buffet	Location: 1st floor, Blue café Western Restaurant (蓝色港湾), Hong Yi Hotel
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Sunday Afternoon, August 16

Time	Activity	Location
14:00 – 17:30	Poster Session	4th floor, You Rong Tang (有容堂), Hong Yi Hotel

Part II Plenary Speeches

Plenary Speech: Monolithic Semiconductor Photonic Circuits – the Route to the Future

Speaker: Prof. John Marsh, IEEE Photonics Society, UK

Time: 9:00-9:40, August 15, 2009

Location: You Rong Tang (有容堂), 4th floor, Hong Yi Hotel



Abstract

It has long been recognised that photonic integrated circuits (PICs) are necessary before optoelectronic systems can penetrate mass markets. The key requirement for integration is to provide enhanced functionality at reduced cost. Deployment of photonics in many applications has stalled, partly because of the technical challenges involved in developing viable integration technologies and partly because the underlying volumes that justify the use of integration are absent. However, over the last 5 years integration has matured to the point where PICs have become commercially available for high performance applications. The two key integration technologies are selective area epitaxy and quantum well intermixing, both of which can be combined with regrowth.

The presentation will describe the state of the art in monolithic PICs. Highly parallel arrays of semiconductor lasers each delivering 100s of mW are already used in high-end printing and materials processing. Integrated transmitter and integrated receiver chips have been combined with silicon electronics in optical-electronic-optical (OEO) transceivers and these modules are now widely deployed in the telecom backbone. Integrated wavelength converters and novel PICs incorporating elements such as ring lasers and delay lines have been fabricated and high levels of functionality have been demonstrated.

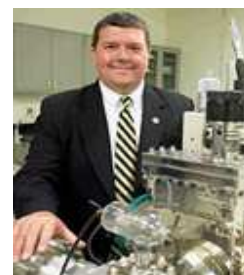
As the technical challenges associated with PICs are overcome, new application and commercial opportunities are opening. These include applications such as photonic 'lab on a chip' for biomedical sensing and LIDAR/LADAR for smart cameras. The presentation will conclude by outlining these and other exciting developments anticipated in the near future..

Plenary Speech: Fiber Based Photovoltaics

Speaker: Prof. David L. Carroll, Wake Forest University, USA

Time: 9:40-10:20, August 15, 2009

Location: You Rong Tang (有容堂), 4th floor, Hong Yi Hotel



Abstract

We have fabricated photovoltaic devices directly onto fiber optics as a novel photovoltaic device. In this presentation, we demonstrate that by using optical fibers to "waveguide" the light into the polyme photovoltaic device, significant performance enhancements can be achieved through enhanced light gathering. The typical shortcomings of planar devices, such as loss to radiative recombination, and poor optical performance of the thin absorbing films, are addressed in this architecture by greatly Aligned polymer fibers of a Fiber-extending the optical path length within the Cell device absorber of the device and confining the radiation modes of the fiber. Not only does this result in enhanced collection of light normally incident on the devices, but it also provides for increased light gathering at oblique incident angles. This leads to the astonishing result that the power generation of fiber-devices, over the course of the day, can be nearly double that of a planar device of the same efficiency rating!

In this presentation we present a detailed experimental characterization together with a mathematical model for fiber-based geometries in organic photovoltaics. Our model consists of two parts: computing the optical path and then the respective energy loss for each path. Through this model, the processes

involved in light transmission, absorption and loss, has been simulated for different incident angles and positions on the face, for different fiber lengths, and for different fiber diameters.

Plenary Speech: Simulation of Optoelectronic Devices from Coupled Two Photonic Hetrostructures

Speaker: Prof. Mahi R. Singh, University of Western Ontario, Canada

Time: 10:40-11:20, August 15, 2009

Location: You Rong Tang (有容堂), 4th floor, Hong Yi Hotel



Abstract

We consider that a photonic crystal is embedded with two dielectric slabs. The size of the slabs is of the order of nanometer size. The system is called a double photonic heterostructure. We use the transfer matrix method to calculate the energy eigenvalues of photons. It is found that photons can tunnel from one heterostructure to another. The heterostructures are doped with quantum dots which has four electronic states. We have performed the numerical simulations of the two-photon absorption in the presence of a probe and a pump laser fields. It is found that when the heterostructures are far away with each other we observed a transparent state in the two-photon absorption spectrum. However, when the wires are close to each other we found two transparent states in the two photon process. This phenomenon is due to the coupling between two heterostructures. We anticipate that the findings of the present research can be useful to make new types of optoelectronic devices.

Plenary Speech: Preparation of Semi-Insulating GaN Templates for AlGaIn/GaN Heterostructures

Speaker: Prof. Chang Liu, Wuhan University, China

Time: 11:20-12:00, August 15, 2009

Location: You Rong Tang (有容堂), 4th floor, Hong Yi Hotel



Abstract

In this talk, we report on molecular beam epitaxial growth of semi-insulating (SI) GaN templates by in-situ transition metal doping with Fe and Cr, as well as by post-growth multi-energy ion-implantation. The room-temperature sheet resistivity of the films all reached $10^{10} \Omega/\text{square}$. The activation energy of the dark conductivity was about 0.5 eV which corresponds to the depth of the dominant electron traps pinning the Fermi level. Al_{0.30}Ga_{0.70}N/GaN heterostructures were then grown on the templates by MBE. Room-temperature mobilities of 1000-1350 cm²/Vs and a sheet charge density of $1.0\text{-}2.6 \times 10^{13} \text{ cm}^{-2}$ were achieved. A pulsed N/Ga atomic deposition technique was developed to simultaneously reduce threading dislocations and smooth the surface. Structural characterizations reveal a smooth surface morphology, coherent and sharp interfaces, and a low density of the threading dislocations.

Part III Oral Sessions

Oral Session 1: Laser Technology and Applications

Chair: Prof. Xia Xiao, Tianjin University, China

Bo Ya Zhai (博雅斋), 4th floor, Hong Yi Hotel

14:00-17:30, Saturday, August 15

Paper ID	Paper Title	Author	Affiliation
50166	Excimer laser microstructuring of amorphous silicon films for electron field emission applications	Mervyn John Rose	University of Dundee, United Kingdom
50445	A New Design of The Laser-Micro Jet System	Yang Shen	Xiamen University, China
50378	Theoretical study on influence of laser pulse shape on characteristics of acoustics thermoelastically induced by CO2 pulsed laser in water	Qingming Chen	Huazhong University of Science and Technology, China
50404	Preparation of Surface-modified Nanozirconia and Its Application in CTP Plates	Wen Chen	Xi'an University of Architecture & Technology, China
50275	Young's Modulus Detection for the Low-k Film by Laser-generated SAWs	Xia Xiao	Tianjin University, China
50287	Multi-Stability in Dual-fiber Optical Trap	Jing Chen	Zhejiang University, China
50203	Incoherently Coupled Soliton Families in Media with Generalized Nonlinearity	Hongcheng Wang	Dongguan University of Technology, China
50056	Synchronization characteristics of feedback-induced chaos in strongly injection-locked semiconductor lasers	Lin Xiao-Dong	Southwest University, China
50307	The Substance of the Laser	Liwei Wang	Zhaoyuan County in Heilongjiang Province Teachers College of Technology, China

Oral Session 2: Optics & Optoelectronics in Biology and Medicine

Chair: Prof. Guoguang Rong, Shanghai Jiao Tong University, China

Zi Lan Zhai (滋兰斋), 4th floor, Hong Yi Hotel

14:00-17:30, Saturday, August 15

Paper ID	Paper Title	Author	Affiliation
50503	Laser Multi-Spectral Polarimetric Diffuse-Scatter Imaging	Bian Hu	University of Houston, United States
50163	Effect of different power parameters of Er,Cr:YSGG laser on dentin ablation ability and substrate morphology	Zhenlin Zhan	Institute of Laser Optoelectronics Technology, China
50204	A CMOS Based Image Acquisition System for Electronic Endoscope	Bin Ye	Zhejiang University, China
50195	Spectrum Endoscope System	Peng Chen	Peking University, China
50044	Experimental investigation on how sampling frequency affects the measured stiffness of an optical trap	Yuxuan Ren	Univ. of Sci. Tech. of China, China
50416	The Research of Ultra-weak Luminescence During plant Leaf Senescence	Guang Li	Hebei university, China

Oral Session 3: Optical Communication and Sensors

Chair: Dr. Ping Lu, Communications Research Centre, Canada

Xie Ying Zhai (撷英斋), 4th floor, Hong Yi Hotel

14:00- 17:30, Saturday, August 15

Paper ID	Paper Title	Author	Affiliation
50298	Study on 1.3um AlGaInAs High Power Broadband Super Luminescent Diode	Shan Jiang	Accelink Technologies Co., Ltd, China
50483	Michelson Interferometer Signal Processing Based on Wavelet Transformation	Xizhao Lu	School of Physics Mechanical & Electrical Engineering of Xiamen University, China
50376	Research on 3×3 Coupler Beased Demodulation for Fiber Optic Sensor	Yabin Zhang	Harbin Engineering University, China
50411	Investigation of multiple-channel optical filter based on Fabry-Perot structure for broadband multichannel communication systems	Jinrong Zhang	Jilin University , China
50400	An Algorithm of Target Tracking and Detecting Synchronously Based on Inter-frame Dual Match	Ledong Wang	Naval University of Engineering, China
50254	Highly Sensitive Porous Silicon Membrane Waveguide Sensor using Ultra-High Order Mode	Guoguang Rong	Shanghai Jiao Tong University, China
50003	FBG Sensor demodulated by multimode interference of Multimode fiber	Jianzhong Zhang	Harbin engineering university, China
50428	40-Gb/s, 0.18-μm CMOS Front-end Amplifier for VSR Parallel Optical Receiver	Zhiqun Li	Southeast University, China
50041	A Novel OCDMA Thresholded Based on Nonlinear Polarization Rotation	Xuezhi Hong	Zhejiang University, China
50202	Mechanically Induced Long-period Fiber Grating Couplers	Xiaojun Zhou	University of Electronic Science & Technology of China , China
50437	Optical Data Buffering Based on Stimulated-Brillouin-Scattering-Induced Acoustic Storage in an As ₂ Se ₃ Fiber	Zhiyao Zhang	University of Electronic Science & Technology of China , China
50438	Spectral Compression of Femtosecond Soliton in Dispersion-increasing Fiber	Rui Liang	University of Electronic Science & Technology of China , China
50240	Annealing of the Induced Birefringence by UV and IR Lasers in Fiber Bragg Gratings	Ping Lu	Communications Research Centre, Canada

Oral Session 4: Basic Theory and New Concept

Chair: Prof. Hanxin Chen, Wuhan Institute of Technology, China

Bo Ya Zhai (博雅斋), 4th floor, Hong Yi Hotel

8:30- 12:00, Sunday, August 16

Paper ID	Paper Title	Author	Affiliation
50252	Mean field theory with only a few transverse Fourier components of EM fields for low-frequency two-dimensional photonic bands	Li Chang	National Tsing Hua University, Taiwan, China
50225	A Novel Ternary Joint Transform Correlation Method for Target Recognition	Yuan Li	Institute of Electronic Engineering,China Academy Engineering Physics, China
50462	Parallel Interactive Ray-Space Rendering Approach and Implementation	He Wang	Shanghai University, China
50057	Discrete Chaotic based 3D Image encryption Scheme	Juan Li	Harbin Institute of Technology, China
50201	Influence of Intermolecular Force on the Head-Disk Interface of HDD with High Recording Density	Jincai Chen	Huazhong University of Science Technology, China

Paper ID	Paper Title	Author	Affiliation
50474	Photodegradation of Gaseous Flowing Low-concentration Toluene by TiO ₂ Loaded on Activated Carbon Fibers Felt	Wenxia Zhao	College of Environmental Science Engineering, Nankai University, China
50217	Measurement of the angle and displacement for the optical pickup head of a pigtailed laser diode	Wen-Shing Sun	National Central University, Taiwan, China
50277	Unitary sensor of Blu-ray and DVD pickup device	Wen-Shing Sun	National Central University, Taiwan, China
50321	Ultrasonic Material Crack Detection With Adaptive LMS-based Wavelet Filter	Hanxin Chen	Wuhan Institute of Technology, China
50423	Study on Dynamic Collimating and Detecting Method for Code-bar Grade Rod	Qihong Huang	Xi'an University of Technology, China

Oral Session 5: New Optoelectronic Device Materials and Processing

Chair: Prof. Shiwei Feng, Beijing University of Technology, China

Zi Lan Zhai (滋兰斋), 4th floor, Hong Yi Hotel

8:30- 12:00, Sunday, August 16

Paper ID	Paper Title	Author	Affiliation
50472	Low Operating Voltage and High Efficiency Vertical GaN based LEDs	Wen-Huang Liu	SemiLEDs co., Taiwan, China
50007	LiNbO ₃ based S-bend waveguide variable optical attenuator	Xihua Li	Zhejiang University, China
50149	A polarization insensitive three-dimensional waveguide interleaver	Kaixin Chen	University of Electronics Science Technology of China
50393	Error Analysis of One-dimensional Magneto-photonic Crystals Used as Faraday Rotators	Yipeng Wang	Shenzhen University, China
50505	Exploration on Mechanics Design for Scanning Tunneling Microscope	Xiangying Deng	Jilin University, China
50459	Optimization and Analysis on Several Impact Factors of High-gain Separate Absorption, Grating, Charge and Multiplication Avalanche Photodiodes	Dapeng Hu	East China Normal University, China
50422	Design of 3D Optical Network on Chip	Huaxi Gu	Hong Kong University of Science Technology, China
50316	Near-field Optical Scanning Probe Based on Surface Plasmon Resonance	Kexiu Dong	Anhui Normal University, China
50197	Simulating the Illuminance and Efficiency of sunlight/LED Hybrid Illuminating System used in Indoor Lighting Design	Wen-Shing Sun	National Central University, Taiwan, China

Oral Session 6: Optoelectronic Devices and Integration

Chair: Dr. Wen Liu, Wuhan Research Institute of Post and Telecommunication, China

Xie Ying Zhai (撷英斋), 4th floor, Hong Yi Hotel

8:30-12:00, Sunday, August 16

Paper ID	Paper Title	Author	Affiliation
50111	MR Image De-noising Study Based Multiwavelet	Lingyuan Li	China Normal University, China
50392	SAW sensors for nerve agents detection	Yadong Jiang	University of Electronic Science Technology of China, China
50068	Thermal Analysis of Rectangular Nd:YVO ₄ Crystal Double-side-pumped by LD	Wen Chen	Xi'an University of Architecture & Technology, China

Paper ID	Paper Title	Author	Affiliation
50193	The hardware system design of smart color mark sensor	Yongcai Yang	School of Optical-Electrical and Computer Engineering, China
50085	Advanced wavelength tunable quantum dot lasers and broadband quantum dot superluminescent diodes obtained by post-growth intermixing	Ziyang Zhang	University of Sheffield, United Kingdom
50491	Remote Preparation of Photon Polarization State via Einstein-Podolsky-Rosen Channel	Jihang Ye	Huazhong University of Science and Technology, China
50484	Design of Weak Signal Detection Circuit for Quadrant Detector with Low Noise	Zhengxun Song	Changchun University of Science and Technology, China
50150	Linear Birefringence and Linear Dichroism Coupled Optical Anisotropy of Magnetic Fluids by External Magnetic Fields	Shengli Pu	University of Shanghai for Science and Technology, China
50446	Tunable Group Velocity of Light Propagation and its Application	Yonglan Hou	Peking University, China

Part IV Poster Session

You Rong Tang (有容堂), 4th floor, Hong Yi Hotel

14:00 - 17:30, Sunday, August 16

Paper ID	Paper Title	Author
50486	A 10-Gb/s, 95-dB Ω , 20-mW Optical Receiver Front-End in 0.13- μ m CMOS Technology	Won-Seok Oh
50185	A 12-Channel Parallel 40Gb/s 0.35 μ m SiGe BiCMOS Laser Diode Driver	Feng Xie
50401	A Low-cost and Big View Field X-ray Intensifier	Jiangtao Fu
50213	A low-cost delay-constrained routing and wavelength assignment algorithm in WDM networks with sparse wavelength conversions	Qiwu Wu
50221	A Measurement of Geometry Parameters in Large-scale Pipes	Yali Guo
50435	A new subdivision algorithm for orthogonal signals in nanometric interferometer	Haijiang Hu
50187	A novel blue-emitting phosphor NaBaPO ₄ :Eu ²⁺ for white LEDs	Zhiping Yang
50174	A Novel Electronic Current Transformer	Feng Pan
50147	A Novel Fiber Bragg Grating Sensor with Temperature Compensation	Wei Wang
50189	A novel green-emitting phosphor BaZn ₂ P ₂ O ₇ :Tb ³⁺ for white LEDs and the influence of doping Ce ³⁺	Zhiping Yang
50100	A Novel Optical Analysis Method For the Focal Length of Muti-core Image Fiber	Xiaotao Li
50487	A Novel Packaging Method of Optic Fiber Collimator Based on Phase Detection	Ping Zong
50430	A novel self-correction differential active pixel sensor	Guoliang Zhang
50145	A novel violet and blue enhanced SiNP silicon photovoltaic device	Bo He
50473	A novel wavelength assignment algorithm for distributed optical networks	Jianping Wang
50171	A Simplified Algorithm to the Atmospheric Transmittance	Shan Chen
50318	A Simultaneous Quantification Method of Thalassemia Screening Multiple Indicators Using FTIR/ATR Spectroscopy	Tao Pan
50468	A Topology Aggregation Algorithm Based on Asymmetric Multi-domain Optical Network	Jianping Wang
50466	A tunable holographic grating with red-sensitive photopolymer and polymer-dispersed liquid crystal	Binghui Tan
50179	A White LED Driver Based on Dual Mode Switch Dimming	Yang Yuan
50346	Acaricidal mechanism of <i>Stellera chamaejasme</i> Extracts against <i>Tetranychus cinnabarinus</i> at subcellular level	Younian Wang
50424	Adsorption and photodecomposition of diphenolic acid in α - or β - cyclodextrins and TiO ₂ suspensions	Li Guo
50064	An improved centroid algorithm for a surface plasmon resonance bioanalyzer using microprocessors	Jiandong Hu
50403	An Improved Dynamic Bandwidth Allocation Algorithm for GPON	Yang Liu
50205	An improved wavelength detection system for fiber grating sensors based on LabVIEW	Yanqun Wu
50451	An Textile Color Degradation Algorithm based on Spatial Gray Domain	Hongjun Li
50232	Analysis of plasma fluorescence spectra mechanism	Shumei Gao
50165	Analysis of Silicon ion-implanted Nd:YVO ₄ as a waveguide laser medium operating at 1064 nm	Guolong Du
50502	Analysis on Microstructure of Polymers for Selective Separation of Naproxen Enantiomers	Naici Bing
50498	Analysis on Thermal Management of High Power Diode-pumped Lasers	Yanqiu DU

Paper ID	Paper Title	Author
50301	Analysis on Volatiles of Temperature-Pressure Forming Materials by Cotton stalk	Shubin Wu
50102	Antibacterial effect of photodynamic therapy on prepared tooth structure contaminated with Streptococcus mutans	Lei Sui
50071	Anti-synchronization of hyperchaotic Lorenz system and Liu system	Xuerong Shi
50257	Application of Femtosecond Laser in Biotechnology: Manipulation and Detection of Living Cells	Jixian Gong
50280	Application of Mamdani Fuzzy System Amendment on Load Forecasting Model	Kuihe Yang
50117	Application of Quantum Seal Theory on Quantum Repeaters	Guangping He
50457	Application of Synthesized Quantum Dots for Cell Imaging	Hengyi Xu
50373	Application of Vowel Recognition Model Based on Improved SVM Algorithm	Lingling Zhao
50271	Applications of polarization microscope in determining the physical status of API in the wet-spinning drug-loaded fibers	Dengguang Yu
50223	Autofocus method for digital holographic reconstruction of microscopic object	Huaying Wang
50093	Back-reflection Model in Resonator Fiber-optic Gyro	Xulin Zhang
50478	Bait-and-Switch Molecular Recognition in Nucleic Acid Sensors. Time-resolved fluorescence, single nucleotide polymorphism detection.	Colin McGuinness
50191	Bioluminescence Imaging Based on Structure- Enhanced Image Restoration	Liming Tan
50132	Calibration of Optical Probe for CMM	Shugui Liu
50008	Carbon Monoxide Gas Sensor Based on Cavity Enhanced Absorption Spectroscopy and Harmonic Detection	Jingchao Zhang
50361	Clock Recovery and Demultiplexing for 80Gbit/s OTDM system	Ming Chen
50431	Collecting and Analyzing the Intensity Distribution of Diffraction by Computer	F. M. Chen
50180	Collinear Phase-Matching Loci of KTP Crystal in Three-Wave Interactions	Tao Shen
50417	Comparative study on the optical band edge of ZnO films with different measurement techniques	Feng Li
50447	Comparison of Two Error-Space Estimate Method for Space-Earth Optical Communication	Ming Cen
50413	Control Simulation of Charge and Discharge in the Solar Photovoltaic Power Generation System	Yuanqing Huang
50107	Crater morphology and thermal injury of bovine shank bone ablated by pulse CO ₂ laser with different defocusing conditions	Xianzeng Zhang
50369	Data Distribution Strategy Research On one Self-Managing Storage System	Yude Wang
50095	Deconvolution algorithm with LTI wiener filter in photoacoustic tomography	Tao Lu
50394	Density control of ZnO nanorod arrays by a solution-based growth with a large temperature change for field electron emission application	Nishuang Liu
50170	Design and Implementation of Board-to-Board Optical Interconnect Protocol	Jin Hu
50315	Design of Cursor Signal Acquisition Module in Full Automated Intelligent Gyroscope	Yuchi Lin
50158	Design of Far-infrared interferometer at 10.6 μ m	Yongqian Wu
50293	Design of High-stability Driver for White LED	Yingguo Huang
50449	Design of MacNeille Polarizing Beam Splitter	Guanliang Peng
50414	Design on Driving and Control System of Step Motor in the Laser Quality Analyzing System	Caixia Wang
50128	Directional Couplers Using V-groove Plasma Waveguides	Yuee Li

Paper ID	Paper Title	Author
50323	Effect of Purification Methods on Micro/Nano Particles Leaching from Eucalyptus granlla Cell for Medicine	Wanxi Peng
50250	Effect of the Bloch-Siegert Shift in a Strongly driven Transition: High-Order Autler-Townes Doublets	Lijun Yang
50366	Effects of Kochia scoparia Extracts to Activities of Several Enzymes of Tetranychus viennensis	Younian Wang
50348	Effects of the Root Extracts of Stelleria Chamaejasme L. on the Activity of Two Enzymes of Tetranychus cinnabarinus	Younian Wang
50017	Electrical and Optical Properties of ZAO Thin Films Prepared by Sol-Gel Dip-Coating Method	Changbin Shen
50141	Electro-optical characteristic of Frequency Modulation in nano Ag doped PDLC	Tengfei Zhu
50011	Electro-optical property of liquid crystal cell with two crossed-grating surface substrates	Wenjiang Ye
50386	Enhanced fluorescence of quantum dots by Au nanoparticles on multi-color silica spheres labeled with organic dyes and quantum dots	Xian Zhang
50434	Extreme value characteristic of dispersion period lengths on dispersion management soliton in TIRPCF under Compton scattering	Yaofu Heng
50279	Fabrication of Carbon Nanotubes Field Emission Backlight Unit Applied to LCD	Yun Ye
50297	Fabrication of Sub-micron surface relief gratings on the azo-polymer films by a low zero-order diffraction phase mask	Xusheng Cheng
50470	Fiber Bragg Grating Sensor with a Simple Demodulation Method	Tao Hu
50075	Filter of LIDAR Data Based on Multi-resolution and Directional Elevation Tolerance	Xiaoming Zhou
50084	Filtering Characteristics of Coated Phase Shifted Long-period Fiber Grating	Zhengtian Gu
50261	Five-frame Phase-Shifting Algorithm Based On The Immunity To Phase-Shifting Error	Fei Zhang
50175	Focal depth of an apodized focusing optical system	Xiumin Gao
50448	Generation for entangled squeezed coherent states of two cavity modes	Lixin Xia
50262	Gradient force pattern of Gaussian beam with helico-conical phase fronts	Jinsong Li
50419	Growth and characteristics analysis of the thermal oxide grown on gallium nitride	Jiangfeng Du
50377	High Speed Concatenated Code Codec for Optical Communication Systems	Liang Zhang
50173	Hi-Precision Fiber Delay Line Based on Magneto-Optic Switch	Shuangjin Shi
50012	Improved PSO Algorithm to Solve Restoration Capacity Problem on ASON	Jun Xu
50169	Improvement of Transmitting Laser Beam Quality by Using Two Deformable Mirrors	Xuhua Zhai
50364	In situ spectroscopic ellipsometry monitoring GaN nucleation layer growth and annealing behavior in MOVPE	Bing Cao
50489	Influence of Annealing on Photoluminescence of ZnO:Mn Thin Films Grown by Sol-gel Technique	Wei Yu
50155	Influence of laser distribution on the Thermal Effect of YVO4-Nd:YVO4 Composite Crystals	Yangbin Xu
50406	Influence of NaCl Stress on delayed luminescence(DL) from leaves	Hongmei Wang
50412	Influence of pH on the stability characteristics of nanofluids	Xianju Wang
50178	Influence of Temperature and Stress Field on Optical Voltage Sensor	Xia Xiao
50048	Investigate on the Feasibility of Introducing Dopants with High Phonon Energy into Tellurite Host to Enhance 1.5um Emission Efficiency	Yanmin Yang
50136	Investigation and Experiment of Dynamic Light Disturbance	Ming Liu
50103	Investigation of breast disease early diagnosis using spatial near-infrared spectroscopy	Ancheng Xu

Paper ID	Paper Title	Author
50515	Investigation on microstructural and Raman scattering properties of N-doped TiO ₂ prepared by sol-gel process	Zhicheng Zhong
50427	Laser and plasma nitriding of titanium in the atmosphere environment	Hanjiang Yu
50109	Laser heat treatment analysis of 40Cr Steel for high speed spindle	Qiang He
50105	Loss Analysis of Arbitrary-Bending Mono-mode Fiber	Binzhao Cao
50245	Manipulating Overlapping of Bangap in One-dimensional Complex Photonic Crystal Composed of Anisotropic Material	Yanling Han
50091	Matched FBG Application Research on Dynamic Sensing and Demodulation	Jian Zhang
50231	Measuring the Water Temperature via Two-Band Planer Laser Induced Fluorescence	Chunyan Xu
50408	Measuring Wavelength of Light Wave by Isochromatic Spectrum	F. M. Chen
50202	Mechanically Induced Long-period Fiber Grating Couplers	Xiaojun Zhou
50104	Metal-insulator-semiconductor BaTiO ₃ Humidity Sensor	Yingcai Wu
50053	Method for Measuring the Thickness of Photoresist on Spherical Surface	Chunhui Zhang
50125	Microwave-assisted Synthesis and Crystal Structure of 3',3'-benzylidene-bis-4-hydroxycoumarin	Sheying Dong
50188	Multimode Communication System Used in Local Area Network(LAN)	Kaikai Xu
50077	Multiple waveguides fabricated simultaneously by femtosecond laser pulses inside fused silica glasses using a multiple foci approach	Hongyun Chen
50138	New Irradiation Damage Mechanism of Nonlinear Optical Materials under High-energy Charged Particles	Jianping Shi
50296	Nonlinear optical property of aligned multi-walled carbon nanotube film	Tiejun Zhang
50078	Novel Optical Coupling System Coupling LDA with Micro-Cylindrical Lens Arrays for Solid Lasers	Hua Qin
50454	Novel optical fiber magnetic sensor based on magnetic fluid	Tao Hu
50436	Ocean color atmospheric correction method with multi-angles data in Case II waters	Zhiwu Ke
50479	OFDMA System with Dynamic Bandwidth Allocation in Passive Optical Networks	Zhihua Zheng
50199	One-dimensional Photonic Crystal Polarization Filter with Multiple Channels	Jianping Shi
50437	Optical Data Buffering Based on Stimulated-Brillouin-Scattering-Induced Acoustic Storage in an As ₂ Se ₃ Fiber	Zhiyao Zhang
50475	Optical fiber hydrogen sensors with Pd/WO ₃ composite thin film by magnetron co-sputtering	Minghong Yang
50241	Optical Properties and Elemental Composition of Ta ₂ O ₅ Thin Films	Peitao Guo
50227	Optimal Design for the Optical Switch	Zhao Fu
50079	Optimal design of flattened gain spectrum of Raman amplifiers based on photonic crystal fibers	Jianhua Chang
50415	Optimal utilization with fairness and priority considerations in optical networks based on light trail	Zichun Le
50455	Persistent Photoconductivity in Undoped n-type ZnO Thin Films	Li Zhang
50020	Phase Transformation in PZT Films Studied by Scanning Probe Microscopy	Zhihong Wang
50426	Photo-BJMOSFET based on SOI film and its analytical compact model	Haiqing Xie
50281	Photonic crystal heterostructure composed of triangular and honeycomb lattice	Chunying Guan
50063	Practical nonorthogonal decoy state quantum key distribution with a heralded single photon source	Yuanyuan Zhou
50015	Preparation and Characterization of TiO ₂ -hybrid SiO ₂ Porous Film	Qiang Liu

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50372	Production of Pseudo-Bessel Beam with Uniform Axial Intensity	Yanzhong Yu
50039	Py-GC/MS Analysis on Bio-energy Sources of Acetic Ether Extractives of Eucalyptus camaldulensis Wood	Heping Deng
50512	Q-switching Yb:YAG Laser and intracavity SHG	Yanbin Men
50083	Quantitative Calibration of Near-Infrared Spectra by Wavelet Packet Transform, Orthogonal Signal Correction and Information Entropy Theory	Dan Peng
50399	Rate Control Algorithm for Multi-view Video Coding Based on Correlation Analysis	Tao Yan
50295	Realization of Catmull-Clark Subdivision Algorithm Based on Quadrilateral Network	Min zhou
50177	Reliability of High Power QCW- AlGaAs/GaAs 808nm cm-bars	Guoguang Lu
50112	Research on dispersion compensating property and nonlinear coefficient of photonic crystal fiber	Qianghua Li
50456	Research on high sensitivity optical fiber interference sensing due to slow light	Yong Zhao
50360	Research on Minitype Pulsed Power Supply Circuit of LD Based on The Targe Identification	Bin Zhang
50172	Research on Properties of the Inverted Index for Photodetector Barrier Layer Capacitance	Junli Wan
50328	Research on Super-Gaussian theory of the thermal effect in a side-pumped Nd:YVO4 laser crystal	Yawen Ling
50303	Research on Thermal Cracking of Waste Deinking Agent for Pulping Wastewater Treatment	Shubin Wu
50207	Routing and Wavelength Assignment Algorithm in Multi-fiber WDM Optical Networks	Kaixian Liu
50504	Self-heating effects in a gain-guided vertical-cavity surface-emitting laser	Kumarajah Kandiah
50069	Semianalytical thermal analysis on circular microchip laser with back cooling	Peng Shi
50235	Sensing Cellular Metabolite in Cell Colonies with RGB Color Test System	Jixian Gong
50037	Signal Processing on Brillouin Scattering based distributed Fibre Sensors	Shanghai Xiao
50097	Silicon Carbide Thin Film Deposited at Low Temperature by DC Magnetron Sputtering and its Field Emission Property	Hanhong Qi
50410	Simulation Design of Inverter in Solar Photovoltaic System Based on MCU	Yuanqing Huang
50152	Simulation of Optical Characteristic for Multi-active Region RCLEDs	Jun Ma
50218	Simulation of Single Mode Nanowires for Ambient Refractive Index Sensing	Pinghui Wu
50035	Simulation of the diffraction propagation of the output beam of laser expanding system	Yanzhong Zhao
50047	SNP Genotyping by Gel-immobilized RCA Product and Biolumometric Assay Coupled with Allele-specific Primer Extension Reaction	Pengfeng Xiao
50438	Spectral Compression of Femtosecond Soliton in a Dispersion-increasing Fiber	Rui Liang
50492	Structural and magnetic properties of N doped ZnMnO film	Yu Wei
50129	Structural Large Strain Monitoring Based On FBG Sensor	Sheng Li
50146	Study of a novel ITO/AZO/SiO ₂ /p-Si SIS heterojunction	Bo He
50464	Study of Fabricated System Based on Nanosecond Pulse Laser	Fengming Sun
50342	Study of Staggered Fusion Imaging Principle of CMOS Image Sensor	Yonghong Yan
50130	Study of Ultraviolet Mobile Ad Hoc Network	Peilin Yang
50300	Study on Dissolving Rules of Nano Particles from E. camaldulensis Wood Flour	Qinghong Chen

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50051	Study on Energy Saving of Pinus massoniana Wood Carbonization Process Based on Moisture Absorption Characteristics	Zhongfeng Zhang
50119	Study on FBG Vibration Sensor	Qiuming Nan
50127	Study on High Voltage Parameters Online Measurement Technology Based on Sealed Photoelectric Sensor System	Mingfa Yang
50283	Study on Performance of Bit-Interleaved Coded M-PPM in Wireless Optical Communications	Wei Liu
50181	Study on Setting Depth Farming System Based on Laser Technology	Zehe Wang
50214	Study on the Biological Surface Using the Reflected Spectrum and Artificial Neural Network Technology	Xianjiang Meng
50154	Study on the impact of size factor and relative refractive index on the asymmetry factor	Ming Chen
50029	Study on the Purification of Lignin-cellulose Fiber from Eucalyptus camaldulensis Wood	Hongchen Qi
50274	Study on The Spatial Division Multiplexing Technique of Fiber Bragg Grating Sensors	Li Li
50302	Study on Utilization Value of Pure Natural Medical Resources of Benzene/Ethanol Extractives of Chinese Fir Wood	Shubin Wu
50284	Supermodes analysis for linearly distributed multicore fiber	Chunying Guan
50054	Supersolid Behavior of Nonlinear Light	Yuan Xu
50114	Switching performance of the fundamental soliton, soliton, Gaussian pulse and Super-Gaussian pulse in an optical switching	Xiaoming Zeng
50497	Synthesis of ZnO Microcrystals with Controllable Morphology by Microwave Reaction	Lifei Chen
50096	Technology Research on Metal Powder Select Laser Sintering Based on Near Infrared Laser Diode	Qiaomei Ma
50488	The Analysis of Photoresist's Absorption Spectrum by THz-TDS	Xueguang Wang
50513	The Analysis on the Optical Spectra Emitted from Two Glow-Discharge Light Devices at One Atmospheric Pressure	Xuechen Li
50388	The Application of Anode Material (ITAZO) and Hole Transportation Material (NiO) in Organic Solar Cell	Nanghai Sun
50216	The Compensation of the Fiber-optic Probe's Spectrum Attenuation with the Fourier Transform	Xianjiang Meng
50086	The gain characters and optimization of the double-pass two-stage ytterbium-doped fiber amplifier	Yan Liu
50060	The Implement of Single Input Multiple Output Shift Register for Photon Correlator	Wei Liu
50151	The investigation on spectrum properties of laser-induced bubble sound waves	Shengyong Li
50425	The Microscopic Image Registration Method Based on Parallel Logarithmic Subtraction Template Matching	Yan Deng
50183	The numerical simulation of two kinds of sample fiber gratings dispersion compensator	Xianjie Feng
50317	The Photo-Electric Interaction in New Soft Optical-Electric Materials-Ionic Liquids	Xiaoping Zhang
50282	The study of refractive index measurement based on the self-mixing interference in laser diode	Tingting Wang
50116	Theoretical Investigation of Holography Time Constants in LiNbO ₃ :Fe:Mn Crystals	Xiong Li
50264	Thermal Analysis of the Multi-chip Vertical Packaged White LED	Guangchen Zhang
50157	Three-dimensional object rotation-invariant recognition with Synthetic Discriminant Function	Jinbo Hao
50247	Tunable Band Structure in Magneto-optic Layered Media	Yanling Han
50379	Tuning Magnetic Properties of magnetic recording media Cobalt Ferrite Nano-particles by Co-precipitation Method	Shu Chang
50465	Two-dimensional photonic crystal channel filter based on ring resonator	Yu Zheng
50196	Various polygonal semiconductor lasers	Hee-Jong Moon

Paper ID	Paper Title	Author
50270	Velocity and Position Measurement for Projectile Using Double Optical Detectors and Reflectors	Jiyan Yu
50045	WDM-PON using ASK modulation with polarization multiplexing	Li Tan
50200	Wide Wavelength-tunable and Low-threshold near-infrared Optical Parametric Oscillator using Periodically Poled MgO: LiNbO3 crystal	Jianghong Yao
50087	ZnO- and TiO2-based semiconductor films prepared by plasma enhanced CVD without any carrier gas	Yingbin Lin
50499	Detection of Ampicillin residues with a miniature integrated Surface plasmon resonance sensor	Zengfu Zhang
50453	Trace Detection of Ampicillin and Influencing Factors Using an Optical Biosensor	Ting Shi
50384	Optical Biosensor for Sensitive and Fast Detection of Ampicillin Residues in Milk Samples	Zengfu Zhang

Part V Instructions for Presentations

Oral Presentation

Devices Provided by the Conference Organizing Committee:

- Laptops (with MS-Office & Adobe Reader)
- Projectors & Screen
- Laser Sticks

Materials Provided by the Presenters:

- PowerPoint or PDF files

Duration of each Presentation:

- Regular Oral Session: 15 Minutes of Presentation, 5 Minutes of Q&A
- Plenary Speech: 30 - 35 Minutes of Presentation, 5 Minutes of Q&A

Poster Presentation

Materials Provided by the Conference Organizing Committee:

- X Racks & Base Fabric Canvases (60cm×160cm, see the figure below)
- Adhesive Tapes or Clamps

Materials Provided by the Presenters:

- Home-made Posters

Requirement for the Posters:

- Material: not limited, can be posted on the Canvases
- Size: smaller than 60cm×160cm
- Content: for demonstration of the presenter's paper

Requirement for the Presenters:

- Stand beside his (her) Poster through the Session, and discuss with the readers about his (her) paper



Part VI Hotel Information

About Hotel

Ideally surrounded by the East Lake, and located in the center of science, education , business and in the neighborhood of Hongshan Square, Wuhan Hong Yi Hotel is a four star hotel with its unique natural geographical and cultural environments, which provides a comfortable and elegant atmosphere to its customers.



Address: No. 136 East Lake Road, Wuchang District, Wuhan City, Hubei Province, China.

How to get to the hotel

From Wuhan Tianhe Airport :

Take a taxi to No. 136 East Lake Road, Wuchang District, Wuhan (Fee: about RMB 100. Time: 50 minutes),

From the Fujiapo Long-Distance Bus Stop

Take a taxi to No. 136 East Lake Road, Wuchang District, Wuhan (Fee: about RMB 15). Time: 10 minutes),

From the Wuchang Railway Station.

Take a taxi to No. 136 East Lake Road, Wuchang District, Wuhan (Fee: about RMB 20). Time: 15 minutes).

For non-Chinese author, please show the following picture to the driver if you are taking a taxi:

请送我到:

武汉市武昌区东湖路136号 武汉弘毅大酒店

Please take me to:

Wuhan Hong Yi Hotel

No. 136 East Lake Road, Wuchang District, Wuhan City

Contact Us

Organizing Committee

E-mail: sopo@scirp.org

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Secretary: Ms. Fei Wang (王菲)