

SYMPOSIUM P

Optical Fiber Devices and Applications

Symposium P: Optical Fiber Devices and Applications

Level 3, Room 314

Mon, 29-Jun-09	Tue, 30-Jun-09	Wed, 1-Jul-09	Thu, 2-Jul-09	Fri, 3-Jul-09
	(08:30 - 09:15) Plenary Lecture 2 Peter Doherty	(08:30 - 09:15) Plenary Lecture 4 John Pendry	(08:30 - 09:15) Plenary Lecture 6 Hartmut Michel	
(09:00 - 09:45) Opening Ceremony	(09:15 - 10:00) Plenary Lecture 3 Andrew Wee	(09:15 - 10:00) Plenary Lecture 5 Chad Mirkin	(09:15 - 10:00) Plenary Lecture 7 Akihisa Inoue	(09:00 - 09:45) Plenary Lecture 8 Jean-Marie Basset
(09:45 - 10:30) Plenary Lecture 1 Peter Gruenberg	(10:00 - 10:30) Coffee Break			(09:45 - 10:30) Plenary Lecture 9 Frederick Lange
(10:30 - 11:00) Coffee Break				(10:30 - 11:00) Coffee Break
(11:00 - 12:30) Session P-S1	(10:30 - 12:30) Session P-S4	(10:30 - 12:30) Session P-S6	(10:30 - 12:30) Session P-S9	(11:00 - 13:45) Session P-S12
(12:30 - 14:00) Lunch (13:00 - 13:45) Theme Lecture James L. Hedrick	(12:30 - 14:00) Lunch (13:00 - 13:45) Theme Lecture Martyn Poliakoff	(12:30 - 14:00) Lunch (13:00 - 13:45) Theme Lecture Karl U. Kainer	(12:30 - 14:00) Lunch (13:00 - 14:30) Panel Discussion	(13:00 - 14:30) Lunch Closing & Poster Ceremony
(13:30 - 16:15) Session P-S2	(14:00 - 16:30) Session P-S5 POSTER SESSION	(13:30 - 15:30) Session P-S7	(13:30 - 16:45) Session P-S10	
(16:15 - 16:30) Break		(15:30 - 18:00) Session P-S8	(16:45 - 19:00) Session P-S11 Panel Discussion	
(16:30 - 18:30) Session P-S3	(18:00 - 20:00) Public Lectures @ UCC Peter Doherty Peter Gruenberg	(19:00 - 20:00) Public Lecture @ UCC Hartmut Michel	(19:00 - 22:00) Conference Banquet @ Suntec	

P-S1

Monday, 29 June 2009
10:00-12:30
Level 3, Room 314
Chair: Perry SHUM

11:00 P-S1.1-2(IN) A01637-03002 pg P22
Small Fibers - Big Physics
John DUDLEY

11:30 P-S1.3-4(IN) A01538-02687 pg P21
Recent Progress on Ultrafast/ultrashort/frequency-stabilized Erbium-doped Fiber Lasers and their Applications
Masataka NAKAZAWA

12:00 P-S1.5-6(IN) A02597-04436 pg P39
Linear and Non-linear Applications of Periodic Structures in Optical Fibres
M. IBSEN, A. CANAGASABEY, C. CORBARI, P.G. KAZANSKY, Z. ZHANG, W.A. CLARKSON, J.K. SAHU

P-S2

Monday, 29 June 2009
13:30-16:15
Level 3, Room 314
Chair: LIN Chinlon

13:30 P-S2.1-2(IN) A02218-03791 pg P30
Recent Progress in Micro/Nanofiber Photonics
Misha SUMETSKY

14:00 P-S2.3-4(IN) A02113-03639 pg P30
Functionalization of Optical Microfibers and Nanofibers
Limin TONG

14:30 P-S2.5-6(IN) A01364-02378 pg P19
Optical Fibre Nanowires and Microwires Manufactured by the Modified Flame Brushing Technique: Extraordinary Properties and Applications
Gilberto BRAMBILLA

15:00 P-S2.7(O) A01225-02094 pg P17
Performance of Microfiber Ring Resonators
Guillaume VIENNE, Aurelien COILLET, XuFeng KOU, Philippe GRELU, Limin TONG

15:15 P-S2.8(O) A01446-02528 pg P20
Polymer Single-Nanowires for Optical Sensing
Fuxing GU, Limin TONG

15:30 P-S2.9(O) A01361-02374 pg P18
Ultra Compact SOI Tapered MMI
Shuh-Ying LEE, Landobasa Y. M. TOBING, Stevanus DARMAWAN, Yichen LI, Ting MEI

15:45 P-S2.10(O) A02311-03962 pg P34
Novel Fiber Optic Engine for Micro Projection Display
Hesam Edin ARABI, Sohee AN, Kyunghwan OH

16:00 P-S2.11(O) A02261-03861 pg P32
Fabrication of Nonlinear Optical Silk
Naibo LIN

P-S3

Monday, 29 June 2009
16:30-18:30
Level 3, Room 314
Chair: Misha SUMETSKY

16:30 P-S3.1-2(IN) A02257-03851 pg P32
Photonic Applications of Carbon Nanotubes
Shinji YAMASHITA

17:00 P-S3.3-4(IN) A01825-03177 pg P26
Passively Mode-Locked Fiber Ring Lasers Using Saturable Absorber Incorporating Carbon Nanotubes
Wood-Hi CHENG, Jin-Chen CHIU, Chao-Yung YEH, Gong-Ru LIN, Jiang-Jen LIN

17:30 P-S3.5-6(IN) A00482-00890 pg P10
Nanowire Drawing and Nanodevice Assembly
Baojun LI

18:00 P-S3.7(O) A01634-02832 pg P22
Tip-induced Change in Polarized Raman Properties of Nanoribbons
Bin YAN, Chaoling DU, Yumeng YOU, Lei LIAO, Zhe ZHENG, Zexiang SHEN, Ting YU

18:15 P-S3.8(O) A02269-03875 pg P32
Enhanced All Optical Switching by Using Microfiber and Nanofiber Ring Resonators
Guanghui WANG, Liming TONG, Ping SHUM, Juanjuan HU, Chinlon LIN, Guillaume VIENNE

P-S4

Tuesday, 30 June 2009
10:30-12:30
Level 3, Room 314
Chair: HO Aaron Ho-Pui

10:30 P-S4.1-2(IN) A00489-02931 pg P10
Physical and Bio-chemical Sensor Research at The University of Québec Using Conventional and Microstructured Optical Fibers
Wojtek J. BOCK

11:00 P-S4.3-4(IN) A01034-01803 pg P15
Brillouin Distributed Fibre Sensing: State of the Art and Perspectives
Luc THEVENAZ

11:30 P-S4.5-6(IN) A00816-03642 pg P14
Recent Advances in Fibre Grating Devices and their Sensing Applications
Lin ZHANG

12:00 P-S4.7-8(IN) A01425-02467 pg P19
Ultrafast Nonlinear Optics on a Chip: Enabling Signal Processing at Terabits per Second
Benjamin EGGLETON

P-S5: Poster Session

Tuesday, 30 June 2009

14:00 - 16:30

Level 3, Gallery

P-S5.01(P) A00066-04952 pg P7
Silicon Raman Laser using Bi-directionally Pumped Mach-Zehnder Interferometer (MZI) cavity
Ying HUANG, Ming TANG, Ping SHUM, Chinlon LIN

P-S5.02(P) A00158-00325 pg P7
A Novel Design of Highly Nonlinear, Polarization-maintaining Photonic Crystal Fiber with Near-zero Flattened Dispersion
Huai Yu MENG, Dora Juan Juan HU, Ping SHUM

P-S5.03(P) A00338-00754 pg P9
Multi-channel 80-GHz RZ Pulse Train Generation Based on XPM and FWM in a Nonlinear Optical Loop Mirror
Jing YANG, Junhao HU, Changyuan YU, Yong Kee YEO, Yixin WANG

P-S5.04(P) A00525-01059 pg P12
Surface Plasmonic Resonance Sensor Using Side Polished Fibers
Tianyuan XIAO, Xia YU, Ping SHUM, Yehuda LEVIATAN

P-S5.05(P) A00644-01158 pg P13
Fiber-Optic Interferometer Formed by a Section of Small-Core Fiber Spliced between Standard Fibers
Sergey NIKITOV, Oleg IVANOV

P-S5.06(P) A00988-01734 pg P15
Synergistic Integration of Microring Resonator with Mach-Zehnder Interferometer and Its Applications: Two-ring Mach-Zehnder Interferometer
Stevanus DARMAWAN, Landobasa Y. M. TOBING, Ting MEI

P-S5.07(P) A01089-01883 pg P16
Theoretical Investigation of Surface Plasmonic Resonance Sensor Based on Spectral Detection Technique
Lei YANG, Xia YU, Ping SHUM, Ying ZHANG, Yehuda LEVIATAN

P-S5.08(P) A01361-02372 pg P18
Relaxation of Critical Coupling Condition in Two-ring Resonator Systems
Landobasa Y. M. TOBING, Stevanus DARMAWAN, Ting MEI

P-S5.09(P) A01445-02509 pg P20
A Novel Bragg-like Chirped Clad Fiber: Design Issues
Somnath GHOSH, Ravendra Kumar VARSHNEY, Bishnu Pada PAL

P-S5.10(P) A01446-02523 pg P20
Modeling Endface Effects of Optical Micro/nanofibers
Shanshan WANG, Limin TONG

P-S5.11(P) A01888-03258 pg P26
Side-hole Fiber based Bragg Grating for Simultaneous Measurement of Strain and Temperature
Xinyong DONG, Ping SHUM, Pierre-Yves FONJALLAZ, Carola STERNER, Myriam KABA, Georges HUMBERT, Frederic GEROME, Jean-Marc BLONDY

P-S5.12(P) A02019-03503 pg P28
Metallic and Metal Oxide High Temperature Coatings for Optical Fibers by Sputtering
Jörg BIERLICH, Jens KOBELKE, Kai SCHUSTER, Jens KUPIS, Konstantin KIRSCH, Claudia AICHELE, Anka SCHWUCHOW, Ines LATKA, Eric LINDNER, Johannes KIRCHHOF

P-S5.13(P) A02240-04376 pg P31
Prediction of the Corrosion of Steel Bar Embedded in Concrete with Circled FBG
Wen CHEN, Xiaopeng DONG, Xianfang ZHU

P-S5.14(P) A02269-04824 pg P33
Polymer Optical Fiber Index Sensor Based on Localized Surface Plasmon Resonance
Guanghui WANG, Kotaro KAJIKAWA, Ping SHUM, Xia YU, Juanjuan HU, Chinlon LIN

P-S5.15(P) A02306-03935 pg P34
Proposal for Quasi-phase-matching Conditions for Nonlinear Frequency Conversion in Coaxial Multi-layer Fiber
Xianglong ZENG, Hairun GUO, Na CHEN, Fufei PANG, Tingyun WANG

P-S5.16(P) A02319-03967 pg P34
LITT Dynamic Temperature Detection Utilizing Fully Distributed FBG Sensor and Spectra Inverse Algorithm
Na CHEN, Chenglin LI, Fufei PANG, Xianglong ZENG, Zhenyi CHEN, Tingyun WANG

P-S5.17(P) A02341-04015 pg P35
Bessel Beam Generator with Single Mode Fiber, Coreless Silica Fiber and Polymer Lens
Jongki KIM, Sungrae LEE, Sejin LEE, Jung YONGMIN, Kyunghwan OH

P-S5.18(P) A02370-04054 pg P36
Enhancement of Evanescent Field in Photonic Crystal Fiber with Novel Core Structure and its Application as Chemical Sensor
Jiyoung PARK, Jongki KIM, Sejin LEE, Yong Gon SEO, Jens KOBELKE, Soan KIM, Kyunghwan OH

P-S5.19(P) A02478-04231 pg P37
Theoretical Design of Highly Birefringent Hybrid Photonic Crystal Fiber
Yongchao BAI, Juanjuan HU, Ping SHUM

P-S5.20(P) A02497-04277 pg P38
Single-mode Hetero-core Fiber Optic Bending Sensor Dipped the Liquid with the High Refractive Index
Michiko NISHIYAMA, Kazuhiro WATANABE

P-S5.21(P) A02863-04898 pg P42
Observation of Mode Conversion Based on Adabatically Tapered Photonic Crystal Fiber With Two Layered Deffect
Boram RYU, Yoonseop JUNG, Mingyu PARK, Seongil IM, Kyunghwan OH

P-S6

Wednesday, 1 July 2009
10:30-12:30
Level 3, Room 314
Chair: Simon FLEMING

10:30 P-S6.1-2(IN) A01737-03022 pg P24
Plasmonics in the Context of Optical Fiber Sensing Devices
Aaron Ho-Pui HO

11:00 P-S6.3-4(IN) A02999-05121 pg P44
Scanning Near-field Optical Microscopy (SNOM) and Its Application for Failure Analysis of Semiconductor Devices
Ying ZHANG

11:30 P-S6.5(O) A00244-00563 pg P7
Shape- and Size-Dependent Refractive Index Sensitivities of Gold Nanostructures and Their Optical Fiber-Based Sensing
Huanjun CHEN, Weihai NI, Zhi YANG, Jianfang WANG

11:45 P-S6.6(O) A00295-01926 pg P8
Surface Plasmon Resonance in Slotted Microstructured Polymer Optical Fibres
Anna WANG, Maryanne LARGE, Boris KUHLMEY, Felicity COX

12:00 P-S6.7(O) A00787-01381 pg P14
Surface Plasmonic Resonance Sensor Using Microstructured Optical Fibers
Shanshan PAN, Xia YU, Ping SHUM, Ying ZHANG, Yehuda LEVIATAN

12:15 P-S6.8(O) A01091-03822 pg P16
Large Area Anodized Aluminium Templates for Nano-Imprinted Optical Fibre Probes
Gorgi KOSTOVSKI, Udayakuma CHINNASAMY, Sasani JAYAWARDHANA, Paul STODDART, Arnan MITCHELL

P-S7

Wednesday, 1 July 2009
13:30-15:30
Level 3, Room 314
Chair: Gilberto BRAMBILLA

13:30 P-S7.1-2(IN) A01728-03011 pg P23
The Impact of Polymer Material Properties on Microstructured Optical Fibres
Maryanne LARGE

14:00 P-S7.3-4(IN) A02887-04935 pg P43
Photonic Crystal Fibers and Their Applications
Kwanil LEE, Sang Bae LEE

14:30 P-S7.5-6(IN) A02885-04933 pg P42
Design of Photosensitive Microstructured Polymer Optical Fibres
Hwayaw TAM

15:00 P-S7.7-8(IN) A01756-03071 pg P24
Hollow Optical Fibers and Their Applications in Photonic Devices
Kyunghwan OH

P-S8

Wednesday, 1 July 2009
15:30-18:00
Level 3, Room 314
Chair: Gilberto BRAMBILLA

15:30 P-S8.1-2(IN) A01960-03391 pg P27
Spun and Chiral Microstructured Fibres
Alexander ARGYROS, ZiYi GE, Andrew DOCHERTY, Mark STRATON, Leon POLADIAN, Francois LADOUCEUR

16:00 P-S8.3-4(IN) A02826-04844 pg P41
Slow Light via Stimulated Brillouin Scattering in an Optical Fiber: Physical Nature and Prejudices
Valeri KOVALEV, Nadezhda KOTOVA, Robert HARRISON

16:30 P-S8.5(O) A02240-04327 pg P31
Analysis of the Novel Tunable Phase-shifted Fiber Bragg Gratings and Its Response to Refractive Index Change in Phase Shift Region
Xiaopeng DONG, Jinlong ZHOU, Xufeng LIN

16:45 P-S8.6(O) A02482-04244 pg P37
Fabrication of the Long-period Fiber Gratings with Polymer Core and Silica Cladding
Hojoong JUNG, Yong Gon SEO, Woosung HA, Dae-kyu KIM, Seung Han PARK, Kyunghwan OH

17:00 P-S8.7(O) A02916-04984 pg P44
Coupling Characteristics of Hybrid Photonic Crystal Fiber Coupler
Dora Juan JUAN HU

17:15 P-S8.8(O) A02604-04565 pg P40
Modeling of Doped Snom Probe
Zhao Gang DONG, Dmitry ISAKOV, Ying ZHANG, Yeng Chai SOH

17:30 P-S8.9(O) A01632-02828 pg P22
Properties of Photonic Band-gap Mode due to a Topological Defect within a Photonic Crystal Fiber Cladding
Georges HUMBERT, Fetah BENABID, Peter ROBERTS, Frederic GEROME, Yingying WANG, Phil LIGHT, Jean-Marc BLONDY

17:45 P-S8.10(O) A01200-02047 pg P17
Ultra Low Power Silicon Photonic Crystal-based Chromatic Dispersion Compensator
Ching Eng PNG, Soon Thor LIM, Er Ping LI, Danner AARON J., Ogawa KENSUKE, Yong Tsong TAN

P-S9

Thursday, 2 July 2009
10:30-12:30
Level 3, Room 314
Chair: Morten IBSEN

10:30 P-S9.1-2(IN) A00508-00933 pg P11
Stable Operation of Multiwavelength Fiber Lasers Based on Versatile Gain Media
Young-Geun HAN

11:00 P-S9.3-4(IN) A01331-02327 pg P17
Fibre-integrated, High Average Spectral Power Density Supercontinuum Sources
John TRAVERS, Sergei POPOV, James Roy TAYLOR

11:30 P-S9.5-6(IN) A00533-01833 pg P12
Cr Doped Crystal Fibers for Laser, Optical Amplifier, and Biophotonic Applications
Kuang-Yu HSU, Chien-Chih LA, Yu-Ta WANG, Chien-Chung TSAI, Yen-Sheng LIN, Kuang-Yao HUANG, Ping-Hui YEH, Sheng-Lung HUANG

12:00 P-S9.7(O) A00322-00760 pg P8
The Q-switch Mode-locking of an Erbium Doped Fiber Ring Laser Using Acousto-optic Modulation
Kai Rong HUANG, Ming Chang SHIH

12:15 P-S9.8(O) A02072-03561 pg P29
Multiwavelength Brillouin-erbium Photonic Crystal Fiber Laser Utilizing a Partially Reflective Fiber Bragg Grating in a Ring Cavity
Nurul Shahrizan SHAHABUDDIN, Azin ADAMIAT, Zulfadzli YUSOFF, Mohd Narizee MOHD NASIR, Mohammed Haydar AL-MANSOORI, Hairul Azhar ABDUL RASHID, Mohd Ridzuan MOKHTAR, Pankaj Kumar CHOUDHURY

P-S10

Thursday, 2 July 2009
13:30-16:45
Level 3, Room 314
Chair: James Roy TAYLOR

13:30 P-S10.1-2(IN) A01672-02890 pg P23
DWDM Channelized Pulsed Carrier Generated from Optical Injection Mode-Locked Weak-Resonant Laser Diode Based Fiber Ring Laser System
Gong-Ru LIN, Yu-Chieh CHI, Guo-Hsuan PENG

14:00 P-S10.3-4(IN) A01761-03085 pg P25
Novel Performance of Fiber Lasers: Tunable Operation in Visible Range
Sergey BABIN

14:30 P-S10.5-6(IN) A02023-03531 pg P29
High Brightness Diode Laser Design to Pump kW Fiber Laser
Jens BIESENBACH

15:00 P-S10.7-8(IN) A01497-02604 pg P21
Progress in Creating Second-order Optical Nonlinearity in Silicate Glasses and Optical Fibres through Thermal Poling
Simon FLEMING, Honglin AN

15:30 P-S10.9(O) A00816-04414 pg P14
Fiber Bragg Grating Structures Inscribed Using 800nm Femtosecond Laser in Single- and Multi-core Mid-IR Glass Fibers with Their Spectral, Thermal and Strain Properties
Rui SUO, Joris LOUSTEAU, Hongxia LI, Xin JIANG, Kaiming ZHOU, Lin ZHANG, Henry BOOKEY, William MACPHERSON, James BARTON, Ajoy KAR

15:45 P-S10.10(O) A01807-03158 pg P26
Design and Fabrication of Multi-channel and Identical-dual-bandpass Fiber Bragg Gratings and their Applications to Filters
Xueming LIU

16:00 P-S10.11(O) A02852-04895 pg P42
Development and Characterization of Novel Yb-Er Phosphate Laser Glass for High Repetition Rate Flashlamp Pumping
Yongzheng FANG, Jiayue XU, Xiaorong LIU, Zhanyong WANG, Lili HU

16:15 P-S10.12(O) A00338-03557 pg P9
Polarization Insensitivity Optic Distributed Strain Sensing System Based on Stimulated Brillouin Scattering
Jing YANG, Changyuan YU, Zhihao CHEN, Junhong NG, Xiufeng YANG

16:30 P-S10.13(O) A00644-01157 pg P12
Microstructured Optical Fibers for the Fiber Optics Sensors
Sergey NIKITOV, Yury CHAMOROVSKIY, Nikolay STAROSTIN, Maksim RYABKO, Sergey MORSHNEV, Vladimir MORSHNEV, Igor' VOROB'EV

P-S11: Panel Discussion

Thursday, 2 July 2009
16:45 - 19:00
Level 3, Room 314
Chair: Perry SHUM

P-S12

Friday, 3 July 2009
11:00-13:45
Level 3, Room 314
Chair: YU Changyuan

11:00 P-S12.1-2(IN) A01950-03377 pg P27
Realization of Thermo-Optic Polymer Waveguide Devices by an Imprinting Technique and a Bottom Heating Approach
Kin Seng CHIANG, Kar Pong LOR, Qing LIU, Hau Ping CHAN

11:30 P-S12.3-4(IN) A02504-04288 pg P38
High Power, All-Fiber based, Tunable, Dual Wavelengths Yb Fiber Amplifier for LIDAR Application
Ruifen WU

12:00 P-S12.5-6(IN) A02198-04016 pg P30
High-speed Processing of Optical Signals with 40-GHz Time- and Wavelength-Interleaved Short Pulses
Chester SHU, Gordon K. P. LEI, Mable P. FOK

12:30 P-S12.7(O) A02795-04773 pg P40
Stokes and Anti-Stokes Raman Fiber Laser
LayKeng LIM, JunHao TSE, Ping SHUM

12:45 P-S12.8(O) A01758-03078 pg P24
Interferometer Based Fiber Sensor for Refractive Index Measurement
Wenting WEI, Ping SHUM, Li XIA, Junqiang ZHOU, Xinyong DONG

13:00 P-S12.9(O) A02384-04693 pg P36
A Smart Multi-functional Fiber Bragg Grating Sensor System for Healthcare Applications
Jianzhong HAO, Siang Fook FOO, Jayachandran MANIYERI, Poh Leong KNG, Phyto Wai AUNG AUNG

13:15 P-S12.10(O) A00357-01179 pg P10
Plastic Optical Fibers Doped with Luminescent Polymers to Achieve Gain and Ultrafast Optical Switching
Ana MENDONÇA, Ana CHARAS, Jenny CLARK, Guglielmo LANZANI, Luca BAZZANA, Alessandro NOCIVELLI, Jorge MORGADO

13:30 P-S12.11(O) A02844-04871 pg P41
10Gbit/s Wavelength Transferable Stimulated Brillouin Scattering Slow Light
Jianguo LIU, Tee Hiang CHENG, Yong Kee YEO, Yixin WANG, Zhaowen XU
