

2007 Pacific Rim Conference on Lasers and Electro-Optics

**Seoul, South Korea
26-31 August 2007**

Pages 1 - 360



IEEE Catalog Number: CFP07CPA-PRT
ISBN 10: 1-4244-1173-4
ISBN 13: 978-1-4244-1173-3

Table of Contents

All Optical 3R Regenerator Based on Semiconductor.....	1
<i>Kyung Hyun Park, Hyunsung Ko, Dong Churl Kim, Eundeok Sim, Young Ahn Leem, Dae-Su Yee, Min Yong Jeon</i>	
Silicon Evanescent Amplifiers	3
<i>John E. Bowers, Hyundai Park, Ying-hao Kuo, Alexer W. Fang, Richard Jones, Mario J. Paniccia, Oded Cohen, Omri Raday</i>	
A Simple Optical Interconnection Integrated with Low Birefringence Silicon-on-insulatorWaveguide.....	5
<i>Shih-Hsiang Hsu</i>	
A Perfectly Current Matched Charge Pump of CP-PLL for Chip-to-Chip Optical Link	7
<i>Ngo Trong Hieu, Tae-Woo Lee, Hyo-Hoon Park</i>	
Ultrafast Hydrogen Migration in Hydrocarbon Molecules in Intense Laser Fields	9
<i>Kaoru Yamanouchi</i>	
Jet-like structure in photoelectron angular distributions	11
<i>Jingtao Zhang, Zhizhan Xu D.-S. Guo</i>	
Negative nonlinear refraction of simple molecular liquids studied with a femtosecond laser pulse	13
<i>Chen-Wei Chen, Jaw-Luen Tang, Kuo-Hsiang Chung, Tai-Huei Wei, Tzer-Hsiang Huang</i>	
Highly Efficient Polarization Conversion of few-cycle ultrashort laser pulse in a degenerate three-level medium	15
<i>Xiaohong Song, Shangqing Gong, Weifeng Yang, Zhizhan Xu</i>	
Femtosecond-laser-induced nanostructures on a patterned diamond-like carbon film	17
<i>Godai Miyaji Kenzo Miyazaki</i>	
Spectrum broadening of Nd:YVO ₄ with femtosecond laser pulse processing	19
<i>Yue Zhu, Yinrong Wu, Shiying Cao, Chun Zhou, Peng Li, Yongheng Dai Zhigang Zhang</i>	
Thermal conductivity/diffusivity of Nd ³⁺ doped GdVO ₄ , YVO ₄ , LuVO ₄ and Y ₃ Al ₅ O ₁₂ measured by temperature wave method.....	21
<i>Junko Morikawa, Toshimasa Hashimoto, Takayo Ogawa, Satoshi Wada, Mikio Higuchi</i>	
Mid-infrared Imaging Observation of Gas-phase Samples Using Transparent Ceramics Optics	23
<i>Hidetoshi Murakami, Nobuhiko Tanaka Shingo Ono, Nobuhiko Sarukura</i>	
Near-infrared Near-field Imaging Spectroscopy of Localized Electronic States due to Composition Fluctuation in GaInNAs Quantum Wells	25
<i>R. Kubota, K. Nakashima, D. Mizuno, T. Saiki, M. Sakai, K. Matsuda, T. Ishizuka</i>	
Rare Earth Silicate Nanopowders Formed using Si Nanowire Templates for Compact, High-gain Light Source Material for Si Photonics.....	27
<i>Jung H. Shin</i>	
10.6 dB gain at a 1310 nm wavelength for a bismuth-doped silica fiber amplifier	29
<i>Y.-S. Seoa, R. Sasaharab, Y. Fujimotob, C. Lima, S.-K. Honga M. Nakatsukab</i>	
The Effect of Temperature on Characteristics of PLZT Electro-optic Deflector	31
<i>Qing Ye, Zuoren Dong, Ronghui Qu, Zujie Fang</i>	
Circular-polarization separator deposited by glancing angle deposition for display system.....	33
<i>Yong Jun Park, Dae Ho Chang Chang Kwon Hwangbo</i>	
Semi-Empirical Model for the Thermally tunable LPFG	35
<i>Junkye Bae, Jinho Bae, Dongyeon Koh, Sang Hyuck Kim, Namkyoo Park Sang Bae Lee</i>	
Near-field optics seen as an antenna problem	37
<i>Bert Hecht</i>	

Table of Contents

Scattering-type Near-field Microscopy: From Nanoscale Infrared Material Recognition to Superlens Studies.....	39
<i>R. Hillenbr</i>	
Magnifying Superlens in the Visible Frequency Range.....	41
<i>I. I. Smolyaninov, Y.J. Hung, C.C. Davis, K. Cho</i>	
Vector Field Mapping of Evanescent Light: Nano Ellipsometry.....	43
<i>K. G. Lee, H. W. Kihm, J. S. Ahn, Ch. Lienau, D. S. Kim</i>	
Tip-enhanced Raman spectroscopy with atomic siteselective sensitivity.....	45
<i>Norihiko Hayazawa, Hiroyuki Watanabe, Yuika Saito, Satoshi Kawata</i>	
Advanced SIL System with High NA and Large Tolerance.....	47
<i>Kitak Won, Narak Choi, Jiyeon Lee, Yunsup Shin, Kyungeon Lee, Tom D. Milster, Jaihyung Lee, Jaisoon Kim</i>	
A simple laser confocal microscope with improved spatial resolution.....	49
<i>Dae-Chul Kim, Hyun-Jun Kim, Seng-Hun Back, Ryun Kim, Jeongyong Kim, Tae Sook Park Minjoong Yoon</i>	
Lidar Methods for Studying Asian Dust Phenomena	51
<i>Nobuo Sugimoto</i>	
In-line lidar for high-precision polarization measurement	53
<i>T. Shiina, M. Miyamoto, T. Honda, T. Fukuchi, K. Noguchi</i>	
Development of an imaging lidar for aerosol monitoring using a wide field-of-view, high-resolution telescope	55
<i>Yohei Yamaguchi, Ikue Kouga, Kohei Shinomiya, Daisuke Kataoka, Nobuo Takeuchi, Hiroaki Kuze, Makoto Sasaki, Yoichi Asaoka, Satoru Ogawa</i>	
Measurement of a meteorological parameters by using rotational Raman lidar.....	57
<i>Dukhyeon Kim, Hyungki Cha, Kiho Yang, Im-Kang Song, Yong-Gi Kim</i>	
Slab-viewing in turbid water by underwater lidar imaging (UWLI).....	59
<i>Duo-Min He, An K. Asundi</i>	
Optical Spectroscopic Approach for Non-Invasive Monitoring of Plant Water and Nutrient Stress	62
<i>Oi Wah Liew, Pek Ching Jenny Chong, Bingqing Li, An K. Asundi</i>	
Accurate sizing of an extremely small quantity of Brownian particles in water with a laser-diode-pumped self-mixing thin-slice Nd:GdVO₄ laser	64
<i>Kana Nemoto, Yoshihiko Miyasaka, Koji Kamikariya, Seiichi Sudo Kenju Otsuka</i>	
Detection of small particles in fluid flow with a self-mixing laser	66
<i>Koji Kamikariya, Seiichi Sudo, Yoshihiko Miyasaka, Kana Nemoto, Kenju Otsuka</i>	
Characterization of dust aerosols with dual wavelengths (532 nm/1064 nm) polarization lidar	68
<i>Chan Bong Park, Choo Hie Lee, Nobuo Sugimoto</i>	
Spectrally Coded Imaging for 3D Particle Field Tracking	70
<i>T. J. McGregor, D.J. Spence, D.W. Coutts</i>	
Multi-Cycle THz Pulse Generation and Manipulation in Poled Lithium Niobate.....	72
<i>Yun-Shik Lee, Naaman Amer, W. C. Hurlbut, J. R. Danielson</i>	
Rotary Optical Delay Line for Terahertz Pulse Detection	74
<i>Y.S. Jin, S.G. Jeon, G.J. Kim, J.I. Kim C.H.Shon</i>	
Femtosecond Electron Acceleration in Bulk GaAs Investigated by Time-Domain THz Spectroscopy.....	76
<i>Y. M. Zhu, T. Umura, K. Shibata K. Hirakawa</i>	
Tunable Narrow-band THz Generation by Type-II DFG with Linearly Chirped Optical Pulses in ZnTe.....	78
<i>Jeremy R. Danielson, Joel D. Wetzel, K. L. Vodopyanov, Yun-Shik Lee</i>	

Table of Contents

CW Sub-Terahertz wave generation by GaAs:O Materials	80
<i>Kejian Chen, Yutai Li, WingYiu Cheung, Weiwen Wang, CiLing Pan, KamTai Chan</i>	
Frequency tuning of THz quantum cascade lasers	82
<i>Alessro Tredicucci</i>	
Two-dimensional Terahertz Time-domain Spectroscopic Imaging of Moving Object.....	84
<i>Atsushi Ihara, Ken-ichi Sawanaka, Takeshi Yasui, Tsutomu Araki</i>	
All-in-one THz-wave parametric source driven by a compact LD-pumped Q-switched Nd:YAG laser	86
<i>Hiroaki Minamide, Atsushi Sato, Tomofumi Ikari, Hiromasa Ito,</i>	
Liquid crystal and liquid crystal colloid studied by THz time-domain spectroscopy.....	88
<i>Masahito Oh-e, Hiroshi Yokoyama, Mattijs Koeberg, Euan Hendry, Mischa Bonn</i>	
Laser fusion driver development in SIOM and some related optical technology progress in China	90
<i>Zunqi Lin, Xiantu He, Jianqiang Zhu</i>	
High Intensity Laser Physics: Recent Results And Developments At The Central Laser Facility, UK.....	92
<i>Mike Dunne</i>	
Suggestion of a laser fusion driver using beam combination with stimulated Brillouin scattering phase conjugate mirrors	94
<i>Hong Jin Kong, Jin Woo Yoon, Du Hyun Beak, Jae Sung Shin</i>	
Development of 40J Class Repetitive Laser Based on Nddoped Silica Glass	96
<i>Takahiro Sato, Yasushi Fujimoto, Hajime Okada, Hidetsugu Yoshida, Masahiro Nakatsuka, Tetsuji Ueda Akira Fujinoki</i>	
Technological Challenge and Activation of High-Energy PW Laser LFEX.....	98
<i>N. Miyanaga, H. Azechi, K. A. Tanaka, T. Kanabe, T. Jitsuno, J. Kawanaka, Y. Fujimoto, H. Shiraga, K. Knodo, K. Tsubakimoto, Y. Nakata, H. Habara, R. Kodama, J. Lu, G. Xu, K. Sueda, N. Morio, S. Matsuo, T. Kawasaki, H. Kitamura, H. Matsuo, T. Sakamoto</i>	
Prospects and progress of the 1 kJ Nd:Glass laser Facility at KAERI	100
<i>Changhwan Lim, Kwang-Hoon Ko, Ki-Tae Lee, Jeong-Tae Jin, Min-Suk Kim, Sung-Ki Hong, Dong-Hyun Yun, Jae-Jin Goo, Lung-Je Li, Dong-Won Lee, Cheol-Jung Kim</i>	
Gain medium parameters design for 100J-class diode-pumped solid-state lasers based on Yb:YAG material.....	102
<i>Haiwu Yu, Dongbin Jiang, Wentao Duan, Meijian Xu, Xinying Jiang</i>	
Mega-Watt pulse generation from a pico-second Nd:YVO₄ phase conjugate laser system.....	104
<i>Kouji Nawata, Takashige Omatsu,</i>	
Highly Repetitive Pulse Discharge for TEA Gas Laser Excitation in Supersonic Flow	106
<i>Tran Thanh SonP, Go ImadaPP, Masataro SuzukiP, Wataru MasudaP</i>	
Autocorrelation measurement of an attosecond pulse train	108
<i>Yasuo Nabekawa</i>	
Complete Temporal Characterization of Attosecond High Harmonic Pulses using the FROG Technique	110
<i>Kyung Taec Kim, Dong Hyuk Ko, Kyung Sik Kang, Juyun Park, Chang Hee Nam</i>	
Compression of Attosecond Harmonic Pulses in the Harmonic Generation Medium Itself.....	112
<i>Dong Hyuk Ko, Kyung Taec Kim, Kyung Sik Kang, Juyun Park, Chang Hee Nam</i>	
Generation of Single Attosecond UV/XUV pulses via the Interaction of Femtosecond High-power Laser with Electron Bunch	114
<i>Sang-Young Chung Dong Eon Kim, Ki Tae Lee</i>	
The effect of tightly focused laser beam on the relativistic nonlinear Thomson scattered radiation	116
<i>Kitae Lee, Seong Hee Park, Young Uk Jeong, Sang Young Chung Dong-Eon Kim</i>	

Table of Contents

Development of laser driven proton sources and their applications	118
<i>H. Daido, A. Sagisaka, K. Ogura, S. Orimo, M. Nishiuchi, M. Mori, J. Ma, A. Pirozhkov, H. Kiriyama, S. Kanazawa, S. Kondo, Y. Yamamoto, T. Shimoura, M. Tanoue, Y. Nakai, A. Akutsu, A. Nagashima, S. Bulanov, T. Esirkepov, T. Kimura, T. Ta</i>	
Hotter electrons from size limited targets in intense laser fields	121
<i>M. Krishnamurthy</i>	
Deci-gigavolt Electrons from a Millitorr Gas Struck by a Sub-Joule Ultra-short Laser Pulse: an Exact Simulation.....	123
<i>Hyun Min Cho Robert W. Hellwarth</i>	
Effect of the Stability of Intense Laser Propagation on the Quality of Electron Beams Produced By the Wakefield Acceleration	125
<i>N. M. Hafz, I. W. Choi, J. H. Sung, H. T. Kim, K.-H. Hong, T. M. Jeong, T. J. Yu, Y.-C. Noh, D.-K. Ko, J. Lee</i>	
Electron and Ion Acceleration in the Bubble Regime.....	127
<i>Baifei Shen, Yuelin li, John Cary</i>	
Recent Progress of High Energy Electron Generation in Intense Laser-Plasma Interactions in Institute of Physics, Chinese Academy of Sciences.....	129
<i>Yutong Li, Zhengming Sheng, Zhiyin Wei Jie Zhang</i>	
Temperature independent birefringence in polarization maintaining photonic crystal fiber	131
<i>Jin U. Kang Do-Hyun Kim</i>	
Asymmetric optical filters based on asynchronous coupled microring resonators.....	133
<i>M. Ashok Prabhu V. Van</i>	
Dispersion Tolerance of Octagonal Photonic Crystal Fibers	135
<i>S. M. A. Razzak, Y. Namihira, F. Begum, S. Kaijage, N. H. Hai, T. Kinjo N. Zou</i>	
Fabrication of broad bandwidth rejection filter using hollow optical fiber with femtosecond laser pulses	137
<i>W. Ha, Y. Jung, J. Kim, W. Shin, I. Sohn, D. Ko, J. Lee, K. Oh</i>	
Integrated Photonics for Robust and Reconfigurable Communication Systems	139
<i>Alan E. Willner</i>	
Wavelength-tunable fiber codirectional coupler filter based on asymmetric side-polished fiber coupler with dispersive interlayer.....	141
<i>Nan-Kuang Chen Sien Chi</i>	
On the Damping of the Bragg Wavelength Shift in FBG	143
<i>Paulo de Tarso Neves Junior, Alexre de Almeida Prado Pohl</i>	
Investigations on laser-induced long-period fiber gratings written in polarization maintaining photonic crystal fiber	145
<i>Jaw-Luen Tang, Chien-Hsing Chen, Jian-Neng Wang, Ping-Chang Jui</i>	
Generation of Chirped Long-Period Gratings in Photonic Crystal Fiber Using a Constant Period Corrugated Device	147
<i>Hou-Ren Chen, Kuei-Huei Lin, Ja-Hon Lin, Wen-Fung Liu, Wen-Feng Hsieh</i>	
Recombination Zone Distribution and Current Enhancement in Ambipolar Organic Light-emitting Material	149
<i>Jiun-Haw Lee, Chih-Hung Hsiao, Chin-An Tseng, Chi-Feng Lin, Yan-Hau Chen, Tien-Chun Lin, Chia-Chiang Hsiao</i>	
Top Emission Organic Light Emitting Diodes Using Novel Transparent Cathodes.....	151
<i>Dae-Gyu Moon, Chan-Jae Lee, Jeong-In Han</i>	
Degradation Induced Recombination-zone Shift in Mixed-host Organic Light-emitting Device.....	153
<i>Chin-An Tseng, Chih-Hung Hsiao, Jiun-Haw Lee</i>	

Table of Contents

Tunable white light generating nanocrystal-hybridized LEDs.....	155
<i>Hilmi Volkan Demir, Sedat Nizamoglua</i>	
Optics of Liquid Crystal Displays	157
<i>Pochi Yeh</i>	
Optical Compensation Films for LCDs.....	158
<i>Hiroyuki Mori</i>	
Flexible Color Moving-Image Displays Using Ferroelectric Liquid Crystal with Polymer Dispersion	160
<i>Hideo Fujikake Hiroto Sato</i>	
The Optofluidic Microscope – A High Resolution Microscope-on-A-Chip System	162
<i>Xiquan Cui, Xin Heng, Lapman Lee, Changhuei Yang</i>	
Combining optical tweezing and confocal microscopy for the study of cell mechanics.....	164
<i>Ze'ev Bomzon, Kim Pham, Daniel Day, Sarah Russell, Min Gu</i>	
Characterization of localized core-shell nanoparticles in a homogeneous phantom.....	166
<i>Seyoung Moon, Donghyun Kim, Hosub Lee, Kangtaek Lee,</i>	
Direct coupling of multi-color film dye lasers to a micro-flow-channel on a polymeric chip.....	168
<i>Shusaku Kataoka, Hirofumi Watanabe, Yuji Oki, Kenichi Yamashita, Masaya Miyazaki</i>	
High Speed Three-Dimensional Endoscopic OCT Using MEMS Technology	170
<i>Zhongping Chen</i>	
Clinical Investigation of Human Eye by Swept Source Optical Coherence Tomography	171
<i>Yoshiaki Yasuno</i>	
Dynamic OCT for physiological function of venules of human fingers	173
<i>Toshie Fuji, Mitsuo Kuwabara, Masato Ohmi, Masamitsu Haruna</i>	
Normalization detection method for high-speed sweptsource optical coherence tomography	175
<i>Sucbei Moon Dug, Young Kim</i>	
Sweeping Detector OCT based on Fabry-Perot Tunable Filter and Balanced Photoreceiver	177
<i>Eun Joo Jung, Jae Seok Park, Myung Yung Jeong, Chang-Seok Kim, Tae Joong Eom, Cheol-Sik Kee, Do-Kyeong Ko</i>	
Scattering Measurements in Turbid Medium Using the Polarization-Sensitive Optical Coherence Tomography: a Pilot Study.....	179
<i>Jin-Ho Kang, Sang-Won Lee, Ji-Yeong Yoo, Beop-Min Kim</i>	
Ultrafast all-optical chalcogenide glass photonic circuits.....	181
<i>B.J. Eggleton</i>	
Compensating losses in positive- and negative-index metamaterials through nonlinear-optical quantum switching	183
<i>A. K. Popov, S. A. Myslivets, T. F. George, V. M. Shalaev</i>	
All-optical switching of slow-light pulses in nonlinear Bragg grating couplers	185
<i>Sangwoo Ha, Andrey A. Sukhorukov, Yuri S. Kivshar</i>	
Spectral burning hole, slow light in a doped optical fiber	187
<i>Yundong Zhang, Wei Qiu, Jianbo Ye, He Tian, Nan Wang, Hao Wang, Ping Yuan</i>	
Polarization Insensitive Optical Wavelength Conversion Based-on Degenerated FWM in Raman Ring Laser	189
<i>A. K. Zamzuri, M. A. Mahdi, U. Ismail, A. Ahmad, R. Mohamad</i>	
Linear and Non-Linear Raman Spectroscopy and Imaging of Living Cells; Life and Death at the Cellular Level.....	191
<i>Hiro-o Hamaguchi</i>	

Table of Contents

Visualizing and Controlling Picometric Quantum Ripples in Molecules	193
<i>Hiroyuki Katsuki, Kemji Ohmori</i>	
Coherent multidimensional optical spectroscopy of complex molecular systems	195
<i>Minhaeng Cho</i>	
Sum-frequency vibrational spectroscopy of self-assembled ultrathin organic layers.....	197
<i>H. S. Silva, H. B. de Aguiar, K. Bergamaski, T. M. Uehara, P. B. Mira</i>	
Measurement of the Bloch Vector of a Two-Level Atom with the Cavity-QED Microlaser.....	199
<i>Moonjoo Lee, Wontaek Seo, Hyun-Gue Hong, Jai-Hyung Lee, Kyungwon An</i>	
Design of a many-atom cavity QED system for the efficient two-photon nonlinearity.....	201
<i>Akira Ishikawa, Toshiro Isu, Hajime Ishihara</i>	
Entangled Photon Generation from a V-Type Atom in Microcavity	203
<i>Hiroshi Ajiki, Hajime Ishihara,</i>	
Effects of Bipolar Atom-Cavity Coupling in the Cavity- QED Microlaser	205
<i>Wontaek Seo, Hyun-Gue Hong, Moonjoo Lee, Wonshik Choi, R. R. Dasari, M. S. Feld, Jai-Hyung Lee, Kyungwon An</i>	
Quantum Imaging.....	207
<i>Yanhua Shih</i>	
Quantum optical coherence tomography with true thermal light.....	209
<i>Yan-Hua Zhai, Xi-Hao Chen, Jian-Ling Zhao, Kai-Hong Luo, Ling-An Wu</i>	
Generation of N-photon phase squeezed states by interference of downconverted photon pairs with weak coherent light.....	211
<i>Holger F. Hofmann, Takafumi Ono</i>	
Quantum noise limited measurement of particle position with optical tweezers	213
<i>W. P. Bowen, J. W. Tay, X. Jiang</i>	
Heisenberg Limited Polarimetry Using Three-Photon Two-Polarization-Mode Fock States.....	215
<i>Kazuyuki Muroo, Yoshitaka Takubo</i>	
Effect of grain sizes on modal structure and polarization properties of laser-diode-pumped miniature ceramic lasers	217
<i>Kenju Otsuka, Koji Kamikariya, Takayuki Ohtomo</i>	
Degradation Analysis of 808 nm GaAsP Laser Diodes.....	219
<i>K. Häusler, B. Sumpf, G. Erbert, G. Tränkle</i>	
A new monolithic carrier-envelope phase measurement scheme with 53dB signal to noise ratio	221
<i>Yanying Zhao, Hainian Han, Wei Zhang, Hao Teng Zhiyi Wei</i>	
920 kHz, low-repetition rate, mode-locked Er-doped fiber ring laser at 1534 nm.....	223
<i>Md. Saad Khan Noboru Uehara</i>	
Quantum key distribution using single-photon detectors based on sinusoidally gated InGaAs/InP avalanche photodiodes.....	225
<i>N. Namekata, G. Fujii, T. Honjo, H. Takesue, S. Inoue</i>	
Stokes Properties of Stimulated Brillouin Scattering Within single cell focusing geometry.....	227
<i>Lü Yuelan Wu lihua</i>	
Nonlinear-optical waveguide on a silicon platform.....	229
<i>Toru Okubo, Rai Kou, Sunao Kurimura, Hirochika Nakajima</i>	
Self-starting passive modelocked Extended-cavity Diode laser in the Littrow configuration.....	231
<i>Gwang Hoon Jang, Duseong Yoon, Minsoo Song, Jinyong Lee, Tai Hyun Yoon</i>	

Table of Contents

High-Speed and Wide Bandwidth Fourier Domain Modelocked Wavelength Swept Laser with Multiple SOAs	233
<i>Min Yong Jeon, Jun Zhang, Qiang Wang, Zhongping Chen,</i>	
Multiple trapping in a patterned plasmonic landscape	235
<i>Maurizio Righini, A. Zelenina, Romain Quidant</i>	
Reconfigurable Photonic Crystal Laser	237
<i>Myung-Ki Kim, In-Kag Hwang, Yong-Hee Lee</i>	
Total Internal Reflection Microscopy for Surface Plasmon Scattering of a Single Cu Nanowire	239
<i>Sang-Youp Yim, Hong-Gyu Ahn, Dae-Geun Kim, Koo-Chul Je, Honglyoul Ju, Moohyun Choi, Chang Woo Park, Seung-Han Park</i>	
Evaluation of the UV Optical Transmission Degradation of Gamma-ray Irradiated Optical Fibers.....	241
<i>D. Sporea, A. Sporea, S. Agnello, L. Nuccio, F.M. Gelardi, B. Brichard</i>	
5-Gb/s Chip-to-chip Optical Interconnection Using Polymeric Waveguides	243
<i>Do-Won Kim, In-Kui Cho, Seung Ho Ahn, Hyo-Hoon Park</i>	
LCD: Future Prospects and Impact on Human Lifestyle	245
<i>Sang Soo Kim</i>	
Prospects of Quantum Dots for Advanced Nanophotonic Devices.....	246
<i>Yasuhiko Arakawa</i>	
High Speed, Ultrahigh Resolution Optical Coherence Tomography	247
<i>James G. Fujimoto</i>	
Attosecond Physics.....	248
<i>Ferenc Krausz</i>	
Engineered Quantum Dots for Lasers	249
<i>J. J. Coleman</i>	
Optical properties of J-shape ridge waveguide with trench structure for superluminescent diode using InAs/InGaAs quantum-dot active layer	250
<i>Young-Chae Yoo, Kyoung-Chan Kim, Hong Yoon, Jung-Hwa Jung, Jin-Wook Jeong, Jung-Il Lee, Gil-Ho Kim, Il-Ki Han</i>	
Reduction of Spacer Layer Thickness of InAs Quantum Dots Using GaNAs Strain Compensation Layer	252
<i>Ryoichiro Suzuki, Tomoyuki Miyamoto, Fumio Koyama</i>	
Characteristics of InGaAs/InGaAsP/InP Quantum Dot Semiconductor Optical Amplifiers	254
<i>S. H. Pyun, W. G. Jeong, D. G. Ko, J. H. Yoon, J. W. Jang, N. J. Kim, J. M. Oh, D. Lee</i>	
Lasing Characteristics of InGaAs/InP Quantum Dot Lasers	256
<i>S. H. Pyun, W. G. Jeong, D. G. Ko, J. H. Yoon, J. W. Jang, E. G. Lee, N. J. Kim, D. Lee</i>	
Effects of Interruption on Surface Morphology for InAs/GaAs Quantum Dots' Growth	258
<i>Song Yuxin, Yu Zhongyuan, Liu Yumin</i>	
The Influence of Strain on Electronic Structure of InAs/GaAs Quantum Dot with wetting layer.....	260
<i>Yumin Liu, Zhongyuan Yu</i>	
Observation of Photon-driven Electronic Transport in Quantum Cascade Lasers.....	262
<i>Hyunyong Choi, Laurent Diehl, Marcella Giovannini, Jérôme Faist, Federico Capasso, Theodore B. Norris</i>	
High-Efficiency Distributed Bragg Reflector Laser with Curved Grating for Squeezed Light Generation	264
<i>Masahiro Uemukai, Toshiaki Suhara</i>	
40-Gb/s Direct Modulation in 1.3-μm InGaAlAs-MQW RWG DFB La.....	266
<i>K. Nakahara, T. Tsuchiya, T. Kitatani, K. Shinoda, T. Taniguchi, T. Kikawa, M. Aoki</i>	

Table of Contents

Optical Flip-flop Operation Using a DBR Laser.....	268
<i>Shinji Matsuo, Takaaki Kakitsuka, Toru Segawa, Hiroyuki Suzuki</i>	
Pulse compression for gain-switched multimode laser diode using optical interferometer	270
<i>Kenji Wada, Shuji Takamatsu, Hideyuki Watanabe, Tetsuya Matsuyama, Hiromichi Horinaka</i>	
Experimental study of the wavelength locked of the high power laser diode bar.....	272
<i>Xin Guofeng, Cheng Can, Qu Ronghui, Fang Zujie, Pi Haoyang, Chen Gaoting</i>	
Comparative Study on 980-nm Quantum-dot and Quantum-well Laser Diode	274
<i>K. W. Kim, K. W. Jung, S. P. Ryu, N. K. Cho, J. Y. Lim, S. J. Park, J. D. Song, W. J. Choi, J. I. Lee, J. H. Park</i>	
Ultrafast Dynamics in Ultrathin Gold Films	276
<i>Jesús Garduño-Mejía, Michael P. Higlett, Stephen R. Meech</i>	
Coherent Nonlinear Optical Effects in Semiconductor QWs Induced by Intense Single-Cycle THz Pulses.....	278
<i>Yun-Shik Lee, J. R. Danielson, J. Steiner, M. Kira, S. W. Koch, J. P. Prineas</i>	
Femtosecond Surface Plasmon Dynamics of Single Ag Nanostructures.....	280
<i>Chang-Ki Mina, Youhong Leea, Yongsup Parkb, Jeong Won Kima</i>	
Superfluorescence from magnetically formed quantum dots: mixing, temperature, and excitation pulsewidth dependence.....	282
<i>Y.D. Jho, X. Wang, J.H. Lee D. H. Reitze, J. Kono, A.A. Belyanin V. V. Kocharovsky, G. S. Solomon</i>	
Real Time Analysis of Ultrafast Radiative Decay of Nondipole-Type Excitonic States in a Thin Film	284
<i>H. Yasuda, M. Ichimiya, M. Ashida, T. Itoh, H. Ishihara</i>	
Temporally and Spatially High-Resolved Spectroscopy and Its Applications.....	286
<i>Qihuang Gong, Zhi Li, Jiasen Zhang, Hong Yang</i>	
Control carrier-envelope phase of sub-10fs laser pulse with difference frequency technique at 160MHz repetition rate.....	288
<i>Yanying Zhao, Wei Zhang, Hainian Han, Qiang Du, Peng Wang, Hao Teng Zhiyi Wei</i>	
Low-Power Photonic Crystal All-Optical Switching	290
<i>Xiaoyong Hu, Ping Jiang, Chengyuan Ding, Hong Yang, Qihuang Gong</i>	
Super Continuum Generation Using ps High Energy Er-doped Fiber Laser at 1.55 um.....	292
<i>Norihiro Nishizawa Masaru Hori</i>	
Passively mode-locked 942nm Nd:GSAG laser and continuous-wave 471nm blue laser	294
<i>Chunyu Zhang, Ling Zhang, Dehua Li, Kunna He, Changwen Xu, Zhaoxia Wang, Zhiyi Wei, Zhiguo Zhang, H. J. Eichler, Chunqing Gao</i>	
Femtosecond two-dimensional Fourier transform electronic spectroscopy	296
<i>Michael K. Yetzbacher, Eric Ryan Smith, Byungmoon Cho, Katherine A. Kitney, David M. Jonas</i>	
Surface vibrations of TiO₂ in liquids observed by fourthorder Raman spectroscopy	298
<i>Tomonori Nomoto, Hiroshi Onishi</i>	
Amide I IR, VCD, and 2D IR Spectra of polypeptide and Ubiquitin: Numerical simulation studies	300
<i>Jun-Ho Choi, Minhaeng Cho</i>	
Filming the vibrational cooling of I₂ in CCl₄ by ultrafast xray diffraction	302
<i>Hyotcherl Ihee</i>	
Picosecond Time Resolved X-ray Diffraction Measurements of Coherent Phonons and Carrier Dynamics at a Buried Interface.....	304
<i>S.H. Lee, D.M. Fritz, Yu-Min Sheu, R.S. Goldman, Don Walko, Eric Lhal, D.A. Reis</i>	
Coherence Period Resolved Transient Grating Technique for the Investigation of Solvation Dynamics in Liquids	306
<i>Sohyun Park Taiha Joo</i>	

Table of Contents

Electrical compensation technology for high speed signal and its feasibility study on 40-Gb/s transmission	308
<i>Kiyoshi Fukuchi, Toshiharu Ito</i>	
High Speed Free Space Optical Communication System for 1km communication	310
<i>Shen Changyu, Feng Huajun, Xu Zhihai, Jin Shangzhong</i>	
All-Optical Multicast Switch based on Raman-Assisted Four-Wave Mixing in Dispersion-shifted Fiber	312
<i>Kwan Lau, S. H. Wang, Lixin Xu, L.F.K. Lui, P.K.A. Wai, C. Lu, H.Y. Tam</i>	
In Service Cumulative Optical Fiber Chromatic Dispersion Monitoring.....	314
<i>Ahmad Atieh, John Mills, Ibrahim Mansour</i>	
Optical signal processing in photonic crystal structures for high-speed optical transmission.....	316
<i>Satoki Kawanishi</i>	
Demultiplexer with Low Polarization-Dependent Loss using Long-Period Holographic Grating.....	318
<i>Duc Dung Do, Nam Kim, Jun Won Ana, Kwon Yeon Leeb</i>	
100-km DWDM transmission with 50-GHz channel spacing using a frequency-comb light source	320
<i>Takahiro Hoshi, Tatsutoshi Shioda, Yosuke Tanaka, Takashi Kurokawa</i>	
High-gain low-noise tunable EDFA over S- and C+L-bands with double-pass configuration.....	322
<i>Chi-Ming Hung, Nan-Kuang Chen, Yinchieh Lai, Sien Chi</i>	
Improvement of wavelength detuning tolerance in non-return-to-zero to return-to-zero signal conversion using null-expanded phase shifted fiber Bragg gratings	324
<i>Masanori Hanawa, Kazuhiko Nakamura</i>	
A Novel Scheme to Generate Orthogonal Modulation Label Based on DPSK Payload and Duobinary RZ Label	326
<i>Jing He, Lin Chen, Yufeng Shao, Shuangchun Wen</i>	
40 Gb/s CS-RZ to RZ format conversion using a MZI-SOA integrated switch.....	328
<i>Rui Meleiro, Daniel Fonseca, José Pina, Jorge Castro, Paulo André, Paulo Monteiro</i>	
A Novel Orthogonally Modulation Scheme for Superimposing DPSK Signals on Dark RZ Signals	330
<i>Yufeng Shao, Lin Chen, Shuangchun Wen, Jianjun Yu, Jing He, Lili Cheng, Haiyan Liu</i>	
Generation of 1.4 Gbps BPSK signal with 22 GHz millimeter wave carrier using optical homodyne detection.....	332
<i>Nobuyoshi Shouji, Yosuke Tanaka, Tatsutoshi Shioda, Takashi Kurokawa</i>	
Growth of Ferroelectric Crystal Fibers for Wavelength Conversion	334
<i>L. M. Lee, S. C. Pei, T. M. Tai, D. H. Sun, A. H. Kung, S. L. Huang</i>	
1W quasi-white generation from optical superlattice.....	335
<i>S.N. Zhu, X. P. Hu, G. Zhao, C. Zhang, W. Wang, Z.D. Gao, J.L. He</i>	
Spontaneous Modulation Instability in Noninstantaneous Self-defocusing Medium with a Coherent Feedback.....	337
<i>Wen-Han Chu, Ming-Feng Shih</i>	
Spatial Solitons and Instability in Nanosphere Suspensions.....	339
<i>R. Gordon, J. T. Blakely, D. Sinton</i>	
Kerr nanobead dynamics near the focus of a single beam optical trap	341
<i>R.F. Pobre, C.A. Saloma</i>	
Three-dimensional laser nano-/micro-fabrication by femtosecond pulses.....	343
<i>Saulius Juodkazis, Hiroaki Misawa</i>	
Formation/dissolution of metallic nanoparticles in SiO ₂ film using cw and ns UV exposure.....	345
<i>J. Choi, J. Massera, L. Petit, M. Richardson, Y. Obeng, K. Richardson</i>	

Table of Contents

Fabrication of Er doped Y ₂ SiO ₅ nanocrystalline particles and its cooperative upconversion coefficient	347
<i>Kiseok Suh, Heeyoung Go, Jung H. Shin</i>	
Optical Characteristics of ZnO Nanowires Synthesized by Nano-Particles Assisted Pulsed Laser Deposition	349
<i>J. Nishimura, R. Guo, M. Higashihata, T. Okada</i>	
Vertically Aligned Growth of ZnO Nanonails by Nanoparticle-Assisted Pulsed-Laser Ablation Deposition	351
<i>R. Q. Guo, J. Nishimura, M. Ueda, M. Higashihata, D. Nakamura, T. Okada</i>	
Ferroelectric fluoride single crystals for UV/VUV QPM applications.....	353
<i>K. Shimamura, E.G. Villora, S. Takekawa, K. Kitamura</i>	
Nd ³⁺ : (La _{1-x} Ba _x)F _{3-x} Grown via Micro-PD as New Vacuum Ultraviolet Scintillator and Potential Laser Material	355
<i>M. Cadatal, Y. Seo, T. Tatsumi, M. Pham, C. Ponseca Jr., S. Ono, E. Estacio, Y. Furukawa, H. Murakami, Y. Fujimoto, N. Sarukura-, M. Nakatsuka, K. Fukuda, R. Simura, T. Suyama, A. Yoshikawa, T. Fukuda</i>	
Study of Diamond Synthesis by Inductively Coupled Plasma with Inside RF Antenna and CO ₂ Laser.....	357
<i>Keita Nakagaki, Toshihiko Yamauchi, Yoshinori Kanno, Seiji Kobayashi</i>	
Analysis of the Polarization Liquid Crystal Gratings	359
<i>Hyunhee Choi, J. W. Wu</i>	
Photonic Crystal 1310/1490/1550 nm Demultiplexer.....	361
<i>Azliza J. M. Adnan, Sahbudin Shaari, R. Mohamad, Zainuddin Lambak, W. Y. Chan</i>	
Metamaterials see the light	363
<i>S. Linden, C. M. Soukoulis, G. Dolling, M. Decker, M. Wegener</i>	
Size Reduction Technology of SOI-based Nano-waveguides	365
<i>F. Sun, Z. Zhou</i>	
Nanowire-Photonic Crystal Waveguide Hybrid Structure	367
<i>Chu-Cai Guo,, Myung-Ki Kim, Se-Heon Kim, Yong-Hee Lee</i>	
Azimuthal Anisotropy of Light Extraction from Photonic Crystal Light-emitting Diodes.....	369
<i>H. T. Hsueh, J.-F. T. Wang, C. H. Chao, W. Y. Yeh J. Y. Chi, C. F. Lai, H. C. Kuo, T. C. Lu, S. C. Wang</i>	
Singlemode, Polarisation Independent Submicron Silicon Waveguides	371
<i>Soon Thor Lim, Yong Long Ang, Ching Eng Png</i>	
Plasmonic Metamaterials for Photon Control Device	373
<i>Takuo Tanaka, Satoshi Kawata</i>	
Local Vector Field Detection with Gold Nanoparticle Functionalized Tips: the Tip- Independence.....	375
<i>K. G. Lee, H. W. Kihm, K. J. Ahn, Q-Han Park, Ch. Lienau, D. S. Kim</i>	
Microaxicon on optical fiber as polarization filtering near field probe	377
<i>Sungjin Chang, Wonho Jhe</i>	
Anomalous Beam Pattern with Diffraction Grating on the End Surface of Hollow Optical Fiber	379
<i>S. Lee, J. Kim, Y. Jung, W. Shin, I. Shon, J.Lee, D.Ko, K. Oh</i>	
Surface Plasmons in Metal Gaps with Dielectric Cores	381
<i>Hyoung-In Lee</i>	
Near-infrared Near-field Imaging Spectroscopy of Semiconductor Quantum Structures for Optical Communication Devices.....	383
<i>T. Saiki, R. Kubota, K. Nakashima, D. Mizuno</i>	
Femtosecond coherent control of near field images of periodic slit arrays in gold film	385
<i>S. B. Choi, D. J. Park, M. S. Jeong, D. -K. Ko, D. S. Kim</i>	

Table of Contents

Near-field spectroscopy and microscopy of InAs single quantum dots.....	387
<i>Young-Jun Yua, Haneol Noha, Yasuhiko Arakawab, Wonho Jhea</i>	
Giant Fresnel Coefficients in a 1D Plasmonic Crystal.....	389
<i>D. J. Park, S. B. Choi, Q. H. Park, M. S. Jeong, D. -K. Ko, D. S. Kim</i>	
Displacement metrology with sub-nm accuracy in air using optical frequency comb.....	391
<i>Y. Bitou, T. R. Schibli, K. Minoshima</i>	
Precise wavefront correction with unbalanced nulling interferometer for direct detection of exo-planet	393
<i>Kaito Yokochi, Jun Nishikawa, Naoshi Murakami, Lyu Abe, Takayuki Kotani, Motohide Tamura, Takashi Kurokawa, Alexer V. Tavrov, Mitsuo Takeda</i>	
Spectral-domain interferometry for simultaneous measuring the refractive index and thickness	395
<i>G.Dyankov, Chih-Shang Liu, Kai-Ping Chuang</i>	
Solid-state laser for laser altimeter in Chang'E Lunar Explorer	397
<i>Weibiao Chen, Xia Hou, Jinzi Bi, Dunhe Yu, Yaofang Wu, Huaguo Zhang, Rong Shu, Jianyu Wan</i>	
Frequency comb based interference microscope with a line-type image sensor	399
<i>Samuel Choi, Tatsutoshi Shiota, Yosuke Tanaka, Takashi Kurokawa</i>	
Review on Time Transfer by Laser Pulses	401
<i>Yang Fumin</i>	
Semi-automatic, Octave-spanning Optical Frequency Counter	403
<i>Tze-An Liu, Ren-Huei Shu, Jin-Long Peng</i>	
Accuracy of distance measurement based on two-photon absorption of Si-photodetector	405
<i>Tatsuya Oiwa, Tatsutoshi Shiota, Yosuke Tanaka, Mitsuo Takeda, Takashi Kurokawa</i>	
A New Probe with Diffraction Based Displacement Sensing	407
<i>Byungki Kim</i>	
Highly-Sensitive and High-Resolution Three Dimensional Measurement in All Fiber System.....	409
<i>Takefumi Ota, Norihiko Nishizawa</i>	
Precision Length Metrology based on Optical Frequency Synthesizer.....	411
<i>Jonghan Jin, Young-Jin Kim, Yunseok Kim, Sangwon, Hyun Seung-Woo Kim</i>	
Wavelength-tunable CW optical parametric oscillator for calibration of Si and InGaAs photodiodes.....	413
<i>Dong-Hoon Lee, Seung Kwan Kim, Seung-Nam Park, Hee-Su Park, Jae-Yong Lee, Sang-Kyung Choi</i>	
A New Method for Phase Measurement on Non-monotonous Fringes	415
<i>W. Sun, C. Quan, C. J. Tay, X. Y. He</i>	
Micro-optic temperature sensor based on a Mach-Zehnder interferometer.....	417
<i>Sung Jo Park, Jong Hoon Lee, Hyung Woo Kwon, Kyu-Jin Kim, Su-Won Jang, Shin-Won Kang, Jae-Won Song, Hyun Deok Kim</i>	
Long Range, High Accuracy Optical Ranging using Frequency-Shifted Feedback Lasers	419
<i>Cheikh Ndiaye, Takefumi Hara, Hiromasa Ito</i>	
Low-Shrinkage PMMA Photopolymer for Volume Holographic Applications	421
<i>Shiuan-Huei Lin, Ken Y. Hsu</i>	
Design and Applications of the Holographic Optical Elements in Photopolymer Material.....	423
<i>Nam Kim</i>	
Intrapage crosstalk in one-beam holographic recording system using a blazed grating.....	425
<i>Joji Sasaki, Atsushi Okamoto, Terumasa Ito, Eiji Nakagawa, Toshio Ando, Hiroshi Umebara</i>	
High Performance Holographic Polymer Dispersed Liquid Crystals and Their Applications on Dense Wavelength Division Multiplexing Systems	427
<i>Yeong Hee Cho, Duc Dung Do, Kwon Yeon Lee, Nam Kim, Yusuke Kawakami</i>	

Table of Contents

THz Surface Wave Propagation on a Metal Waveguide.....	429
<i>Tae-In Jeon</i>	
Terahertz electromagnetic wave transmission through random arrays of single rectangular holes and slits.....	431
<i>J. W. Lee, M. A. Seo, D. H. Kang, S. C. Jeoung, Q. H. Park, D. S. Kim</i>	
Difference-Frequency Generation of Terahertz Wave Using a LiNbO₃ Ribbon Waveguide in Collinear Configuration	433
<i>Y. Takushima, S. Y. Shin, Y. C. Chung</i>	
Numerical calculations of the Frequency Spectra of naphthalene and 1,4-dihydroxynaphthalene in the 0.5-to 6 terahertz region	435
<i>C. Ponceca, E. Estacio, M. Cadatal, R. Pobre, R. Quiroga, H. Murakami, S. Ono, N. Sarukura, J. Nishizawa, K. Suto, T. Sasaki, T. Tanno, K. Tominaga</i>	
Planar terahertz waveguide using CYTOP; a highly transparent plastic feasible for hybrid optics applications.....	437
<i>E. Estacio, G. De Los Reyes, C. Ponceca Jr., R. Pobre, R. Quiroga, H. Murakami, S. Ono, N. Sarukura, K. Aosaki, Y. Sakane, H. Sato</i>	
Terahertz-wave generation and real-life applications	439
<i>Kodo Kawase, Yuichi Ogawa, Chiko Otani</i>	
Terahertz Vector Field Microscopic Imaging of Light Emerging from a Single Slit.....	441
<i>M. A. Seo, D. H. Kang, A. J. L. Adam, P. C. M. Planken, D. S. Kim</i>	
Numerical Simulation of Apertureless Terahertz Near- Field Microscopes	443
<i>K. Lee, J. Kim, H. Park, H. Han, I. Park, H. Lim</i>	
Azimuthal symmetry folding in the terahertz radiation power of (100) p-InAs under 1 Tesla magnetic field	445
<i>Elmer Estacio, Carlito Ponceca Jr., Hisashi Sumikura, Hidetoshi Murakami, Shingo Ono, Romeric Pobre, Reuben Quiroga, Nobuhiko Sarukura, Masahiko Tani, Masanori Hangyo</i>	
THz wave generation by THz region one-dimensional photonic crystal structure.....	447
<i>Eiji Kishimoto, Yu Hanafusa, Masayuki Obayashi, Hayato Miyagawa, Shyun Koshiba, Shunsuke Nakanishi, Hiroshi Itoh, Masanori Hangyo, Noriaki Tsurumachi</i>	
Nan Ei Yu, Chul Kang, Changsoo Jung, Chul-Sik Kee, Yeung Lak Lee, Bong-Ahn Yu, Do-Kyeong Ko, and Jongmin Lee.....	449
<i>Kenji Kitamura, Shunji Takekawa</i>	
Submerged objects detecting by nonlinear optical process of Stimulated Brillouin Scattering in water.	451
<i>Lü Yuelan Wu, Lihua Zhao Hong</i>	
Nonlinear hot-image formation of an intense laser beam through self-defocusing media	453
<i>Youwen Wang, Yonghua Hu, Shuangchun Wen</i>	
Modulation Instability of Spatiotemporal Partially Coherent Beam in Dispersive Nonlinear Medium.....	455
<i>Hui Zhuo, Shuangchun Wen, Yonghua Hu</i>	
Stable multi-wavelength erbium-doped fiber laser by using dispersion-shifted fiber	457
<i>Ying Gao, Daru Chen, Shiming Gao</i>	
Threshold power reduction for forming bright solitons guided in nonlocal nonlinear media	459
<i>YuanYao Lin, Ray-Kuang Lee</i>	
Nonlinear refraction and absorption in solid SWCNT/silica composites	461
<i>H. C. Kim, J. H. Yim, J. T. Kim, S. Lee, K. H. Koh, Y. H. Ahn, F. Rotermund</i>	
Improved Maker-fringe analysis for estimation of second-order nonlinearities of arrayed ZnO nanorods	463
<i>J. T. Kim, H. W. Lee, K. M. Lee, S. Lee, K. H. Koh, F. Rotermund</i>	
Suppression of self pulsing in Yb-doped fiber lasers with cooling by liquid nitrogen	465
<i>Kazuhiko Sumimura, Hidetsugu Yoshida, Hajime Okada, Hisanori Fujita, Masahiro Nakatsuka</i>	

Table of Contents

Complete Removal of the Substrate Effects in Third-Harmonic Generation from Single-Walled Carbon Nanotubes	467
<i>Clare C. Byeon, Soo-Bong Choi, Ok Hwan Cha, Mun Seok Jeong, Jong Su Kim, Do-Kyeong Ko, Jongmin Lee, Kay Hyeok, An Young Hee Lee</i>	
Measurement of Birefringence in Nonlinear Crystals by Michelson Interferometer	469
<i>Hee Joo Choi, Byeong Joo Kim, Hwan Hong Lim, Myoungsik Cha</i>	
Development of Compact 473nm Laser Using Intra-Cavity SHG with Short-PPSLT	471
<i>Noriyuki Kamogawa, Hirofumi Watanabe, Yuji Oki, Kenji Kitamura, Shunji Takekawa, Yoshiharu Urata, Satoshi Wada</i>	
Influence of the optical nonlinearity on surface plasmon excitations in thin metal films.....	473
<i>P. D. Khuong Kihong Kim, H. Lim</i>	
Variable Group Velocity Slowdown in High-Doped Erbium Fibers.....	475
<i>Wei Qiu, Yundong Zhang, Jianbo Ye, He Tian, Jinfang Wang, Nan Wang, Hao Wang, Ping Yuan</i>	
Determination of absolute polar orientation of dyes incorporated into the channels of silicalite-1 films	477
<i>H. Min, Y. Jeon, J. Sung, S. Seok, D. Kim, H. S. Kim, K. B. Yoon</i>	
The Synthetical Effect of both High-order Dispersion and High-order Nonlinearity on Cross-Phase Modulation Instability in Decreasing Dispersion Fiber	479
<i>Hu Taoping, Sun Xiaohan</i>	
Simple method for measuring the rotational viscosity coefficient of nematic liquid crystals	481
<i>Gun Yeup Kim, Chong Hoon Kwak</i>	
Collective migration of solute caused by excited state absorptions	483
<i>Che-Kai Chang, Jaw-Luen Tang, Chi-Chen Wang, Chang-Chi Leu, Tai-Huei Wei, Tzer-Hsiang Huang</i>	
Signal processing of a Brillouin scattering sensor system using reflector.....	485
<i>Moonhee Lee, Hojoon Lee</i>	
Study on Holographic Diffraction Properties in Dye-doped Nematic Liquid Crystals	487
<i>E. J. Kim, H. R. Yang, G. Y. Kim, S. Y. Park C. H. Kwak</i>	
Sequential Variations of Fraunhofer Diffraction Pattern by Optical 4f Imaging System in As₂S₃ Thin Film	489
<i>H. R. Yang, E. J. Kim, G. Y. Kim, S. Y. Park C. H. Kwak</i>	
Cross-Polarized Photon Pair Source using Type-II Quasi-Phase Matched Parametric Down-Conversion	491
<i>Shigehiro Nagano, Koji Suizu, Yohei Sugiura, Ryosuke Shimizu, Keiichi Edamatsu, Hiromasa Ito</i>	
Giant nonlinear optical properties of Bi_{3.25}La_{0.75}Ti₃O₁₂ ferroelectric thin films on quartz substrate.....	493
<i>Heedeuk Shin, Hye Jeong Chang, R. W. Boyd, M. R. Choi, W. Jo</i>	
Empirical Relation of Nonlinear Constant for Ge-doped Single Mode Optical Fibers	495
<i>Yoshinori Namihira,</i>	
Optical Properties of Epoxy Novolak Resin Polymer Co-doped with Er³⁺ and Er³⁺/Yb³⁺ ions	497
<i>Václav Pražler, Ivan Hüttel, Jarmila Špirková, Oleksiy Lutakov, Vítězslav Jeoábek</i>	
Photoluminescence from Er-doped ITO films.....	499
<i>Sung Mi Yu, Jung Kyun Kim, Byeong Kyou Jin, Woon Jin Chung, Yong Gyu Choi</i>	
High Areal Density and Broadband Emission from InAs Quantum Dots for Superluminescent Diodes	501
<i>C. Y. Ngoa, S. F. Yoona, W. J. Fana S. J. Chuab</i>	
Effect of GeO₂ additive on fluorescence intensity enhancement in bismuth-doped silica glass	503
<i>Yasushi Fujimoto, Yuki Hirata, Yoshiyuki Kuwada, Masahiro Nakatsuka</i>	
Cathodoluminescence Characterization of ZnO Nanorods Grown by Wet Chemical Synthesis.....	505
<i>H. Y. Park, K. M. Lee, Y. H. Ahn, Soonil Lee, Ken Ha Koh, K. H. Park, D. R. Suh</i>	

Table of Contents

Design of anisotropic reflector with birefringent thin films for use at normal incidence.....	507
<i>K M A Sobahan, Yong Jun Park, Chang Kwon Hwangbo</i>	
Wavelength shift of planar waveguide Bragg gratings under the UV-laser irradiation of polymer cladding.....	509
<i>Dong-Young Park, Ki-Sun Choi, Geun-Jin Kim, Se-Jong Baik, Kiegon Im, Kwang-Taek Kim, Young-Tae Yoo</i>	
Enhanced light emission from InP substrate with nanoholes	511
<i>Mi Jung, Seok Lee, Young Tae Byun, Young Min Jhon, Sun Ho Kim, Sun-il Mhoa, Deok Ha Woo</i>	
Spectral analysis of the TEC fiber Bragg grating	513
<i>Jaesoon Youn, Jun-mo Han, Jae Beom Lee, Kyoung Shin Lee, Ju Youn Son, Kiegon Im, In Hee Shin, Dug Young Kim</i>	
Size-dependent quantum dynamical perturbation of gold nanoparticles on surface plasmon resonanc.....	515
<i>Donghun Kang, Donghyun, Kimb Eunji Sima</i>	
Effect of ion-irradiation-induced defect on the optically active Er ions in Er-doped silicon-rich silicon oxide	517
<i>Hoon Jeong, Se-young Seo, Jung H. Shin</i>	
Fabrication of Thin Film Titania with Nanopoles and Nanopipes	519
<i>Hyun-Jung Her, Woon-Hyuk Baek, Jaewan Kim, Y. J. Choi, C. J. Kang, Yong-Sang Kim</i>	
Titania Microstructures and Their Optical Properties	521
<i>Hyung Kyun Yua, Gi-Ra Yib, Se-Heon Kima, Seung-Man Yanga</i>	
Design of mask grating for obtaining the effect of an offaxis illumination in optical lithography	523
<i>Young-Seok Kim, Seok Ho Song, Sung-Hyun Oh, Yong-Kyu Choi, Beom-Hoan O, Se-Geun Park, El-Hang Lee, Seung Gol Lee</i>	
Effect of nitride passivation on the Si nanocluster-Er coupling and Er optical activity.....	525
<i>Moon-Seung Yang, Kyung-Joong Kim, Jung H. Shin</i>	
Ridge-type, single mode multi-slot waveguide with Erdoped silica layers	527
<i>Shinyoung Lee, Jee Soo Chang, Jung H. Shin</i>	
Surface functionalization of silicon micropillars spincoated with Er-doped YSO silicate nanoparti	529
<i>Heeyoung Go, Kiseok Suh, Jung H. Shin</i>	
Simple method for differential mode delay of a multimode optical fiber using Fourier-domain intermodal interference analysis	531
<i>J.Y. Lee, D.Y. Kim</i>	
Enhanced spectral resolution of multiplex CARS microscopy by utilizing a pair of gratings.....	533
<i>Dae Sik Choia,b, Jung Rim Nama, Sae Chae Jeounga, Dong Hyun Chob</i>	
Selective ablation of angiogenic blood vessels based on ultrafast laser microsurgery	535
<i>Suk Yi Woo, Ku Youn Baik, Sae Chae Jeoung</i>	
Analysis of nanowire-based localized surface plasmon resonance using an effective medium theory	537
<i>Soon Joon Yoon, Donghyun Kim</i>	
Novel OCT system based on a tandem interferometer.....	539
<i>T. J. Eom, V. A. Tougbayev, B. -A. Yu, W. Shin, Y. L. Lee, D. -K. Ko, J. Lee, E. S. Choi</i>	
Lilium Pollen Opto-perforation by ultrashort laser pulse	541
<i>,Ku Youn Baik, Won-joong Jeong, Youn-II Park, Kwang-Sup Soh, Sae Chae Jeoung</i>	
Quantitative comparison of phase retardation measured by polarization-sensitive spectral-domain optical coherence tomography and scanning laser tomography	543
<i>Masahiro Yamanari, Masahiro Miura, Shuichi Makita, Toyohiko Yatagai, Yoshiaki Yasuno</i>	
Observation of Micro-Bubbles Generated by Laser-Induced Breakdown in Water	545
<i>Noriyuki Takahashi, Takashi Yasuda, Kazuyoku Tei, Shigeru Yamaguchi, Tomoo Fujioka</i>	

Table of Contents

Investigation of diffuse reflectance of tissues in vivo with backscattering fiber probe and multi-channel diffuse reflectance imaging system	547
<i>Joon-Mo Yang, Frederic Laager, Kwang-Sup Soh</i>	
Tomographic Imaging of Fluorophore Embedded in Biological Tissue Based on Ultrasound Tagging Technique	549
<i>Trinh Quang Duc, Takashi Mizumoto, Yuya Nanbu, Motohiro Takeda, Masaki Kobayashi</i>	
Prepapillary retinal vessel quantification by using Doppler optical coherence angiography	551
<i>Shuichi Makita, Youngjoo Hong, Masahiro Miura, Tapio Fabritius, Masahiro Yamanari, Toyohiko Yatagai, Yoshiaki Yasuno</i>	
Comparison of a Digital Color and Hyper-Spectral Camera for Dental Plaque Detection	553
<i>Youngwoo bae, Heesung Kang, Byungjo Jung</i>	
Extracting optical properties of human vessel tissue from PS-OCT images	555
<i>Ming-Wei Hsiung, Wen-Chuan Kuo, Po-Nien Yang, Sheng-Tsung Cheng, Wen-Hung Huan</i>	
Phase-contrast measurement and imaging using optical Hilbert transformation	557
<i>Wen-Hung Huang, Wen-Chuan Kuo, Sheng-Tsung Cheng, Ming-Yu Chou</i>	
Optical Polarimetry Probe for Glucose Monitoring	559
<i>Heesung Kang, Youngwoo Bae, Byungjo Jung</i>	
Reconstruction Image of Au Nanoparticle Distribution Within Scattering Medium Using Ultrasonic Velocity Change Imaging	561
<i>T. Mukaiyama, N. Nakamura, S. Kawakami, T. Matsuyama, K. Wada, T. Matsunaka, K. Kono, H. Horinaka</i>	
Real-time fluorescence imaging of a drug release using polymeric nanoparticles	563
<i>Kyujung Kim, Sungbaek Seo, Jong-ryul Choi, Donghyun Kim, Seungjoo Haam,</i>	
Novel multifunctional PHDCA/PEI nano-drug carriers for simultaneous magnetically-targeted cancer therapy and diagnosis using magnetic resonance imaging.....	565
<i>Sungbaek Seo, Jaemoon Yang, Woochan Hyung, Eun-Jin Cho, Yong Jin Song, Ho-Geun Yoon, Jin-Suck Suh, Yong-Min Huh, Seungjoo Haam,</i>	
Dissection of rat hippocampus using stereoscopic microscope	567
<i>Young-Tae Lima, Nam Kima, Jin-Sun Yuna, Ki-Chul Kwonb</i>	
Second Harmonic Optical Coherence Tomography based on Broadband Photonic Crystal Fiber Coupler	569
<i>Seon Young Ryu, Byeong Ha Lee, Ivan Tomov, Zhongping Chen</i>	
A diffraction-based study of cell viability using a periodic blazed grating.....	571
<i>Jong-ryul Choi, Ho-Jeong Ryu, Taek-il Oh, Donghyun Kim</i>	
The nonlinearity of Diffuse Optical Tomography And Born Expansion	573
<i>Kiwoon Kwon, Dong-Su Ho, Beop-Min Kim</i>	
High Q-factor TM Modes in Three-Dimensional Semiconductor Microresonators	575
<i>Yue-De Yang, Yong-Zhen Huang</i>	
Dispersion Controlling and Polarization Maintaining in a Modified Hexagonal Photonic Crystal Fiber.....	577
<i>S. Kaijage, Y. Namihira, N. H. Hai, F. Begum, S. M. A. Razzak, T. Kinjo, N. Zou</i>	
Polarization-dependent enhanced optical transmission through one-dimensional subwavelength slit arrays.....	579
<i>Shigehiko Mori, Keisuke Hasegawa, Shuichiro Inoue</i>	
Nano Woodpile Structure via Two Photon Absorption Polymerization Boyoung Kang, Jeong Weon Wu (a), Kwang-Sup Lee (b), Bum Ku Rhee	581
<i>Boyoung Kang, Jeong Weon Wu, Kwang-Sup Lee, Bum Ku Rhee</i>	
Excitation of surface plasmons in one-dimensional metal-dielectric photonic crystals.....	583
<i>Kwang Jin Lee, Kihong Kim</i>	

Table of Contents

Surface plasma waves can resonantly enhance the mode conversion efficiency in cold, unmagnetized plasmas	585
<i>Dae Jung Yu, Kihong Kim</i>	
Magnetic-field-induced agglomeration in the magnetic fluid doped with nonmagnetic particles	587
<i>Ziyun Di, Xianfeng Chen, Jingfei Chen, Yuxing Xia</i>	
Resonant transmission of evanescent electromagnetic waves through Fibonacci dielectric multilayers	589
<i>Jong Whan Yoo, Kihong Kim</i>	
Readout of a qubit final state by observing exciton spontaneous emissions after resonant excitation.....	591
<i>K. Kuroda, T. Kuroda, K. Sakoda, G. Kido, N. Koguchi</i>	
Rapid formation of block copolymer thin film based on infrared laser irradiation	593
<i>Jaw-Luen Tang, Ming-AnTsai</i>	
Enhancement of optical transmission through structured metal surface	595
<i>Yong-yuan Zhu, Yi-qiang Qin, Qian-jin Wang, Cheng-ping Huang</i>	
Design of a silicon optical modulator using photonic crystal Mach-Zehnder interferometer.....	597
<i>Hyun-Shik Lee, Beom-Hoan O, Seung-Gol Lee, Se-Geun Park, El-Hang Lee</i>	
Operation frequency tuning of photonic crystal switch utilizing electric field bias control.....	599
<i>Seung Ah Lee, Sukmo Koo, Sunkyu Yu, Junseok Heo, Namkyoo Park</i>	
Study on polarization properties of high-density gratings for optical information processing	601
<i>Bo Wang, Changhe Zhou, Shunquan Wang, Huayi Ru, Jijun Feng</i>	
Application of optical superresolution in read-only optical disk system	603
<i>Caihui Di, Changhe Zhou, Youyou Cao, Enwen Dai</i>	
Characterization of the complex ultrashort laser pulses by Dammann SHG FROG	605
<i>Enwen Dai, Changhe Zhou</i>	
Time-domain differential detection using photorefractive two-wave mixing in phase-only holographic data storage system	607
<i>Masanori Takabayashi, Atsushi Okamoto, Terumasa Ito</i>	
Noise reduction strategy in high-speed replication of holographic memories using photorefractive amplification.....	609
<i>Nobuhiro Takahashi, Atsushi Okamoto, Takayuki Sano, Terumasa Ito</i>	
Computer simulation analysis of spatial filtering effect on off-axis type hologram recording	611
<i>Satoshi Takahashi, Manabu Yamamoto</i>	
Fabrication of Diffraction Gratings for Producing Balanced Diffraction Orders	613
<i>Dongli Hong, Byoung Joo Kim, Myoungsik Cha</i>	
Data Position Detection Analysis for 1.X time Oversampled Image in Holographic Data Storage.....	615
<i>Hiroshi Ohtoh, Manabu Yamamoto</i>	
Optical scheme for wavelength selective diffractive optical element using phase delay layer and liquid crystal polymer.....	617
<i>Jun-Won An, Nam Kim</i>	
Optical Bistability of an Injection-Locked Single-Mode Fabry- Perot Laser Diode and Its Application to an Optical Filp-Flop	620
<i>Jeong Sik Cho, Nguyen Le Hoang, Yong Deok Jeong, Yong Hyub Won</i>	
Twin Image Elimination in In-line Digital Holography Microscope by Controlling the Geometric Set-Up	622
<i>Hyunjun Cho, Jinwoong Lim, Doocheol Kim, Younghun Yu</i>	
Spiral spectrum separation for information transmission by using orbital angular momentum of light beam.....	624
<i>Liu Yidong, Gao Chunqing, Li Feng, Gao Mingwei</i>	

Table of Contents

On-axis 2-f digital holographic optical security system with 2-step phase-shifting technique.....	626
<i>Sang Keun Gil, Young Gwan Hwang, Seok Hee Jeon</i>	
Three-dimensional new view synthesis algorithm using object rendering based on the line of sight.....	628
<i>Joonku Hahn, Yunhee Kim, Gilbae Park, Byoungcho Lee</i>	
Optical characteristics of photopolymer for holographic applications as a input beam coupler	630
<i>Changwon Shin, Nam Kim, Seokhui Jeon, Eungyeong Kim</i>	
Mask pattern recording of reflection type photopolymer using total internal reflection.....	632
<i>Hyeon-Seop Jeong, Nam Kim, Mi-Ran Park, Chang-Won Shin</i>	
Analysis on the depth and angular resolution of multi-view display.....	634
<i>Joohwan Kim, Yunhee Kim, Heejin Choi, Seong-Woo Cho, Byoungcho Lee</i>	
The photopolymer containing dual functional monomers for holographic recording	636
<i>Jeonghun Kim, Krishnamurthy Rameshbabua, Eunkyoung Kima, Sang-Goo Lee</i>	
Characterization of methacrylate photopolymer films for holography storage.....	638
<i>Hyunjin Oh, Hyunkwon Shin, Myeongkyu Lee, Eunkyoung Kim</i>	
Influences of the Writing-Beam Size on the Performances of a Dispersion-Free Multi-Channel Fiber	
Bragg Grating	640
<i>Ming Li, Hongpu Li</i>	
Radiation Loss at Transitions in Dielectric Waveguides.....	642
<i>Nai-Hsiang Sun, Chih-Cheng Chou, Shang-Ren Wang, San-Liang Lee, Jerome K. Butler, Gary A. Evans</i>	
Bandgap formation in nonsilica-glass photonic bandgap fibers with liquid crystal inclusions	644
<i>J. Sun, C.C. Chan N. Ni</i>	
Objective lens and spatial filter array in an electrooptic analog-to-digital converter	646
<i>Wen-Ren Yang Bo-Jao Huang, William (Bill) C. Nunnally</i>	
Efficient three-dimensional wide-angle beampropagation method for the analysis of optical waveguide devices	648
<i>Jun Shibayama, Tatsuya Takahashi, Junji Yamauchi, Hisamatsu Nakano</i>	
UV-Illuminated Buried-Type Optical Waveguide Devices on Benzocyclobutene.....	650
<i>Liang-Yin Chen, Wan-Shao Tsai, Way-Seen Wang</i>	
Analysis of Air-Core Terahertz Waveguides.....	652
<i>Chin-ping Yu, Ja-Yu Lu, Chi-Kuang Sun, Hung-chun Chang</i>	
Theoretical analysis of feedback polarization maintaining fiber loop mirror.....	654
<i>Guoyong Sun, Dae Seung Moon, Youngjoo Chung</i>	
A Novel Large Effective Area Photonic Crystal Fiber for Ultra-Broadband Transmission Application	656
<i>N. H Haia, Y. Namihirab, S. Kaijage, F. Begum, S. M Abdur Razzak, T. Kinjo, N. Zou</i>	
Coupled Mode Analysis of Power Transport and Loss in Highly Multimodal Tapered Dielectric Waveguides for Coupling Applications	658
<i>Yasin Soenmez, Amir Wallrabenstein, Juergen Schrage, Gerd Mroznyski</i>	
FBG and Terfonel-D Based Alternating Current Sensor for Engineering Application	660
<i>Zhao Hong Xong Yanling, Zhang Jian, Lü Yuelan</i>	
Design of Mixed Signal Power Divider for Fiber Optic Applications	662
<i>Kwon-Seob Lim, Hyun Seo Kang</i>	
Fabrication-Error-Tolerant Triplexer based on Planar Lightwave Circuit.....	664
<i>Taehyung Lee, Donghyun Lee, Suhyun Kim, Youngchul Chung</i>	
Wavelength Dependence of Ridge-Waveguide Optical Phase Modulators	666
<i>Young Tae Byun, Young Min Jhon, Sun Ho Kim</i>	

Table of Contents

Surface plasmonic mode-gap waveguides.....	668
<i>Sang-jun Lee, Sangin Kim</i>	
Residual Layer Distribution on Embossing Process for Photonic Devices	670
<i>Chul-Hyun Choi, Min Woo Lee, Jun-Ho Sung, Bo-Soon Kim, Seung-Gol Lee, Beom-Hoan O</i>	
Photonic Crystal Electro-Optic Modulator Incorporating Hybrid Silicon/Polymer Material	672
<i>Jun-Ho Sung, Chul-Hyun Choi, Min Woo Lee, Jeong-Su Yang, Seung Gol Lee, El-Hang Lee, Beom-Hoan O</i>	
Design of multimode EO waveguide for hologram optical switch.....	674
<i>Takashi Yamaguchi, Kwang-Ho Shin, Pang-Boey Lim, Hironaga Uchida, Mitsuteru Inoue</i>	
Analysis and Design of Tunable Wavelength Selective Switches Based on MMI Assisted Microring Resonators	676
<i>Thanh Trung Le, Laurence W. Cahill</i>	
Novel Duplexer based on Multimode Interference Effect	678
<i>Jong-Kyun Hong, Sang-Sun Lee</i>	
Wavelength-Switching Erbium-Doped Fiber Laser with a Multimode Fiber Bragg Grating and Faraday Rotator Mirror.....	680
<i>Shinyoung Yoon, Youngsoon Heo, Se-Jong Baik, Kigeon Im, Yong-San Lee, Hyun-Seo Kang</i>	
Wavelength-Spacing Tunable Multi-wavelength Fiber Lasers Based on Hybrid Gain Medium and Mach-Zehnder Interferometer	682
<i>Daru Chen, Shan Qin, Ying Gao, Sailing He</i>	
Employing Fabry-Perot Etalon and Split-Band Technique to Improve Directly Modulated Fiber Optical CATV System Performances	684
<i>Wen-I Lin, Hai-Han Lu, Po-Chou Lai, Hoshin Yee, Shah-Jye Tzeng</i>	
Low-Stress Organic membrane for High-Resolution Variable Optical Attenuator	686
<i>Chao-Hu Li, Chen-Wei E. Chiu, Tyng-Yow Chen, Guo-Dung J. Su</i>	
Free-space optics for multi-node sensor network using adjustable mirrors.....	688
<i>Young-jin Oh, Donghyun Kim,</i>	
Time Delay Adjustment to Reduce the Crosstalk in Multichannel RZ-DPSK Conversion in SOA based on FWM.....	690
<i>He Wen, Huan Jiang, Xiaoping Zheng, Hanyi Zhang Yili Guo</i>	
Multiwavelength Switchable Erbium-Doped Fiber Ring Laser using Digital Micromirror Device.....	692
<i>Bong-Ahn Yu, Woojin Shin, Yeung Lak Lee, Tae Joong Eom, Young-Chul Noh, Do-Kyeong Ko, Jongmin Lee</i>	
Multi-port, multi-wavelength supervisory system for inservice monitoring of bi-directional WDM-PON systems	694
<i>Jeonghwan Lee, Jonghan Park, Jae Gwang Shim, Hosung Yoon, Jin Hee Kim, Kyoungmin Kim, Jae-Oh Byun, Namkyoo Park</i>	
Polarization Switching of a 1.5 um Wavelength Single-mode VCSEL under Optical Injection Locking.....	696
<i>Kyu Hyeon Jeong, Kyong Hon Kim, Min Hee Lee, Byueng-Su Yoo, K. Alan Shore</i>	
Performance Analysis for All-Optical Label Swapping Routers Based on Two-Stage Wavelength Conversion.....	698
<i>Jer-Shien Chen, San-Liang Lee, Hong-Chang Kung, Hen-Wai Tsao, Sheng-Xian Wang</i>	
All-Optical OR and NOR Logic Gates in Single Format by Using Semiconductor Optical Amplifiers	700
<i>Kyoung Sun Choi, Young Min Jhon, Deok Ha Woo, Seok Lee, Sun Ho Kim, Jinwoo Park</i>	
Design and Fabrication of a Polymer Optical Bench for VCSEL array by UV Embossing.....	702
<i>Shinmo An, Hyun-Shik Lee, Beom-Hoan O, Seung-Gol Lee, Se-Geun Park, El-Hang Lee</i>	

Table of Contents

Employing Photonic Crystal Fiber to Improve CSO/CTB Performances in a Two-Wavelength WDM Transport System.....	704
<i>Wen-I Lin, Hai-Han Lu, Wen-Jeng Ho, Hoshin Yee, Po-Chou Lai</i>	
Medical applications of in vivo fluorescence CLSM.....	706
<i>Seunghan Ha, Sangyong Park, Junhyung Kim, Gyuman Park, Onseok Lee, Gunwoo Lee, Jaeyeong Kim, Byungseon Chun, Daegab Gweon, Chilhwan Oh,</i>	
Characterization of Novel Holographic Gratings Formed with Hyper-branched Silsesquioxane Systems.....	708
<i>Yeong Hee Cho, Md. Asadul Hoque, Nam Kim, Yusuke Kawakami</i>	
Accessing the Time Response of FBG	710
<i>Alexre de Almeida Prado Pohl, John Canning</i>	
Impacts of differential phase noise caused by amplitude inequality and nonlinearity in optical M-DAPSK systems	712
<i>Aiying Yang, Maotong Liu, Yunan Sun</i>	
High Repetition Frequency EO-Q-Switched Nd-Doped Vanadate Laser.....	714
<i>Ryuusuke Horiuchi, Hiroaki Sunaga, Koichi Saiki, Kazuyoku Tei, Shigeru Yamaguchi, Kenzo Nanri</i>	
Diode-end-pumped passively Q-switched Nd:YAG ceramic laser	716
<i>J. Kong, D. Y. Tang, G. Q. Xie</i>	
High peak power output of a diode-pumped Q-switched and mode locked Nd:LuVO₄ with Cr:YAG saturable absorber	718
<i>Ja-Hon Lin, Ming-Dar Wei, Hsin-Han Hsu, Wen-Feng Hsieh</i>	
Preparation and Application of Sol-Gel Glass Incorporating Single-Walled Carbon Nanotubes.....	720
<i>Yong-Won Song, Kok Hann Fong, Shinji Yamashita</i>	
Suppression of Phase Fluctuation of Phase-Controlled Stimulated Brillouin Scattering Beams by Self-generated Density Modulation.....	722
<i>Seong Ku Lee, Hidetsugu Yoshida, Masahiro Nakatsuka, Hong Jin Kong, Jin Woo Yun, Jongmin Lee</i>	
Advances in High-Pulse Energy Excimer Laser and Applications.....	724
<i>Andrew Chang, Rainer Paetzel, Ludolf Herbst, Burkhard Fechner</i>	
Innovative Applications in FPD Manufacture using High Power Q-Switch DPSS Lasers	726
<i>Matt Henry, Jozef Wendt, Paul M. Harrison</i>	
Effect of ytterbium concentration on Yb:YAG microchip laser performance at ambient temperature	728
<i>Jun Dong, Akira Shirakawa Ken-ichi Ueda, Alexer A. Kaminskii</i>	
Polarization properties of laser-diode-pumped microchip Nd:YAG ceramic lasers	730
<i>Kenju Otsuka, Kana Nemoto, Koji Kamikariya, Yoshihiko Miyasaka</i>	
EUV light source by high power laser.....	732
<i>Y. Izawa, K. Nishihara, H. Nishimura, S. Fujioka, T. Aota, Y. Shimada, M. Yamaura, E. Fujiwara, A. Sunahara, M. Murakami, K. Nagai, T. Norimatsu, A. Sasaki, H. Tanuma, N. Miyanaga, K. Mima</i>	
High Average Power and High Repetition Solid State Laser for EUV Lithography.....	734
<i>Hisanori Fujita, Masahiro Nakatsuka, Ravi Bhushan, Kouji Tsubakimoto, Hidetsugu Yoshida, Noriaki Miyanaga, Yasukazu Izawa</i>	
Laser-Imaging of Laser-Produced Tin Plume Behavior for EUV Light Source.....	736
<i>Daisuke Nakamura, Yuki Hashimoto, Koji Tamari, Akihiko Takahashi, Tatsuo Okada</i>	
Production of Sn-Droplets as a Target of Laser-Produced Plasma for Debris-Free EUV Light Source	738
<i>Koji Tamari, Daisuke Nakamura, Akihiro Takahashi, Tatsuo Okada</i>	

Table of Contents

Generation of a Tunable UV Light by Frequency-Doubling of a Pulsed Dye Laser at a 10 kHz Rep. Rate with an elliptical Gaussian Beam.....	740
<i>Gwon Lim, Jaemin Han, Kwang-Hoon Ko, Hyunmin Park, Yong-Ho Cha, Sipyoo Rho, Taek-Soo Kim, Do-Young Jeong</i>	
Microjoule, Subpicosecond Pulse Generation from a Yb³⁺ - Doped Fiber Laser Using Frequency Shifted Feedback.....	742
<i>A.M. Heidt, J.P. Burger, J.-N. Maran, H.M. von Bergmann, N. Traynor</i>	
Annular mode of ytterbium-doped fiber laser with radial polarization under bi-directional pumping.....	744
<i>Jian-lang Li, Ken-ichi Ueda</i>	
1178nm linearly-polarized all fiber laser	746
<i>Hiroki Maruyama, Akira Shirakawa, Ken-ichi Ueda</i>	
Ultra-broadband CW supercontinuum source based on the SRS in the Yb-doped fiber laser	748
<i>Jun Zhou, Qihong Lou, Bing He, Jingxing Dong, Jinyan Li</i>	
Intracavity Dispersion Optimization in Asynchronous Mode-Locking Erbium Fiber Laser at 10 GHz.....	750
<i>E. S. Boncristiano, L. A. M. Saito, E. A. De Souza</i>	
122 Watts coherent beam combination from two Yb-doped double cladding fiber lasers.....	752
<i>Qihong Lou, Bing He Jun Zhou</i>	
High saturation output power S-band EDFA by suppressing C-band ASE in uniformly inverted EDF.....	754
<i>Sheng-Lung Cho, Nan-Kuang Chen, Sien Chi</i>	
High-peak power pulse amplification using Yb doped fiber and second harmonic generation.....	756
<i>Koichi Saiki, Ryusuke Horiuchi, Hiroaki Sunaga, Kazuyoku Tei, Shigeru Yamaguchi, Kenzo Nanri</i>	
Development of Femtosecond Petawatt Laser Technology	758
<i>Xiaoyan Liang, Yuxin Leng, Cheng Wang, Chuang Li, Baozhen Zhao, Lihuang Lin, Yunhua Jiang, Xiaoming Lu, Mingyuan Hu, Chunmei Zhang, Haihe Lu, Dingjun Yin, Yongliang Jiang, Xingqiang Lu, Hui Wei, Jianqiang Zhu, Ruxin Li, Zhizhan Xu</i>	
Amplification Ti:sapphire laser to 355TW with a compact design	760
<i>Zhaohua Wang, Weijun Ling, Peng Wang, Jiangfeng Zhu, Jinrong Tian, Zhiyi Wei, Jie Zhang</i>	
Efficient ring chirped-pulse regenerative amplifier at 1kHz repetition rate.....	762
<i>Huan Zhao, Peng Wang, Zhaohua Wang, Hao Teng, Dehua Li, Zhiyi Wei</i>	
Carrier-envelope-phase stabilization of a high-power femtosecond laser by the direct locking method.....	764
<i>Jae-hwan Lee, Tayyab Imran, Yong Soo Lee, Ju-yun Park, Chang Hee Nam</i>	
Design of broadband chirped mirrors with different initial designs.....	766
<i>Lingling Chen Zhigang Zhang</i>	
Applications of a 10-mJ soft X-ray laser: from dense plasma physics to micro-structuring	768
<i>Tomas Mocek</i>	
The formation mechanism of void array in glass induced by femtosecond laser pulses.....	770
<i>Haiyi Sun, Juan Song, Jian Xu, Ya Cheng, Zhizhan Xu, Jianrong Qiu</i>	
Micromachining of Grooves for Cutting Fused Silica Plates with Femtosecond Laser Pulses.....	772
<i>Farid Ahmed, Man Seop Lee</i>	
Development of a 50 kHz, 13 W Ti:sapphire femtosecond regenerative amplifier	774
<i>Tomohiro Imahoko, Norihiro Inoue, Kazuya Takasago, Tetsumi Sumiyoshi, Hitoshi Sekita, Minoru Obara</i>	
Femtosecond Yb:KGW Regenerative Amplifier for Industrial Application.....	776
<i>Taisuke Miura, Shinji Ito, Masao Yoshioka, Katsuji Mukaihara</i>	
A theory of molecular high harmonic generation from coherently rotating molecules and interpretation of recent pump-probe experiments.....	778
<i>F.H.M. Faisal, A. Abdurrouf, K. Miyazaki, G. Miyaji</i>	

Table of Contents

Theoretical study of the dynamical behaviors of molecules and living cells in laser fields	780
<i>Hirohiko Kono, Katsunori Nakai, Naoyuki Niitsu, Toshihiro Yamada, Yuichi Fujimura</i>	
Destructive Interference during High Harmonic Generation in Mixed Gases.....	782
<i>Tsuneto Kanai, Eiji J. Takahashi, Yasuo Nabekawa, Katsumi Midorikawa</i>	
Rotational coherence in high-order harmonic generation from nonadiabatically aligned molecules.....	784
<i>K.Miyazaki, K.Yoshii, G.Miyaji, F.H.M.Faisal, A.Abdurrouf</i>	
Matter in Strong Optical Fields: Atoms, Molecules, and Living Matter	786
<i>Deepak Mathur</i>	
Passive harmonic mode locking of soliton bunches in a fiber ring laser.....	788
<i>L. M. Zhao, D. Y. Tang, T. H. Cheng, H. Y. Tam, C. Lu</i>	
Multi-pulse dispersion-managed solitons in a fiber laser at near zero dispersion	790
<i>L. M. Zhao, D. Y. Tang, T. H. Cheng, H. Y. Tam, C. Lu</i>	
Ultrashort Soliton in passively mode-locked Fiber laser.....	792
<i>D.J. Lei, D.Y. Tang, L.M. Zhao, S.C. Wen, X.Q. Fu, H.W. Xu</i>	
Acoustic pressure wave emissions by multiple femtosecond laser-induced breakdowns in water	794
<i>Akihiro Takita Yoshio Hayasak</i>	
Application of ultra-flat spectrum multiwavelength EDFL in microwave photonic filters	796
<i>H. Y. Tam, C. Lu, Xinhuan Feng, P. K. A. Wai, D. Y. Tang</i>	
Accuracy Enhancement of Fiber Gas Sensor by CRD Technique and LMS Algorithm.....	798
<i>N. Ni, C.C. Chan, T. K. Chuah, L. Xia, J. Sun, P. Shum</i>	
Fiber Optic Multi-parameter Sensor System Using Neural Networks	800
<i>Pramod R. Watekar, Seongmin Ju Won -Taek Han</i>	
The temperature sensitivity of Sagnac loop interferometer based on polarization maintaining side-hole fiber	802
<i>Dae Seung Moon, Bok Hyeon Kim, Guoyong Sun, Young-Geun Han, Won-Taek Han, Youngjoo Chung</i>	
Si Waveguide Devices for Optical Communication	804
<i>Hirohito Yamada, Tao Chu, Shigeru Nakamura, Yutaka Urino, Satomi Ishida, Yasuhiko Arakawa</i>	
Multi-scan femtosecond laser waveguide inscription in zcut Lithium Niobate.....	806
<i>H. T. Bookey, R. R. Thomson, N. D. Psaila A. K. Kar, N. Chiodo, R. Osellame, G. Cerullo</i>	
Laser action from an Er:Yb-doped Oxyfluoride Silicate glass waveguide fabricated using femtosecond laser inscription.....	808
<i>N. D. Psaila, R. R. Thomson, H. T. Bookey, A. K. Kar, N. Chiodo, R. Osellame, G. Cerullo, S. Shen, A. Jha</i>	
Blueshifting of InGaAsP-InGaAsP MQW Laser Diodes Using a High-Energy Ion-Implantation Technique.....	810
<i>Su Hyun Kim, Young Tae Byun, Young Chul Chung..</i>	
Narrowed Edge Emission spectra from Leaky Modes of Multi-Layer Dielectric Waveguides	812
<i>Ji-Hun Kang, Q-Han Park†, Yun Tian, Zhengqing Gan, Zhaoqun Zhou, David W. Lynch, Joseph Shinar</i>	
Monolithically integrated high speed optoelectronic transceiver device for RF-to-optic signal conversion.....	814
<i>Jeha Kim, Yong-Duck Chung, Kwang-Seong Choi, Jae-Sik Sim, Young-Shik Kang</i>	
Optical Properties of InGaAsP Asymmetric Double Quantum Wells: Enhanced Slope Efficiency and Reduced Bias Voltage in QW-EAM's	816
<i>Dong Kwon Kima, D. S. Citrinb</i>	
Integrated LiNbO₃ Mach-Zehnder type electrooptical electromagnetic sensor	818
<i>Ching-Ting Lee, Tsung-Hsin Lee, Po-I Wu</i>	

Table of Contents

Demonstration of switching operation in a symmetric Mach-Zehnder interferometer switch using Si waveguide with a ferro-electric liquid crystal cladding.....	820
<i>T. Sasaki, H. Sato, K. Nakatsuhara, T. Nakagami</i>	
Widely Tunable Double-Ring-Resonator Add/Drop Filter Using High-Index-Contrast Polymer Waveguide	822
<i>Donghyun Lee, Taehyung Lee, Joonoh Park, Suhyun Kim, Woonglin Hwang, Youngchul Chung</i>	
Low Polarization Dependent Loss for Waveguide Tap Monitoring.....	824
<i>Shih-Hsiang Hsu</i>	
Three-Dimensional Imaginary-Distance BPM Simulation of a Partially Metal-Loaded Optical Waveguide.....	826
<i>Tomohide Yamazaki, Junji Yamauchi, Hisamatsu Nakano</i>	
Bidirectional ROADM using a 3×N AWG.....	828
<i>Kwanil Lee, Sang Bae Lee</i>	
Design and Fabrication of Widely Tunable Polymer Waveguide Coupled-Ring Reflector	830
<i>Taehyung Lee, Donghyun Lee, Joonoh Park, Woonglin Hwang, Youngchul Chung</i>	
Silicon Photonic Wire Filter Based on Core-to-Cladding Mode Coupling	832
<i>Young-Bo Cho, Jin-Soo Shin, Byung-Ki Yang, Joo-Hyung Lee, Jun-Bo Yoon, Sang-Yung Shin</i>	
Fabrication of Micron-scale Elliptical Structures for Vertical Optical Via Applications	834
<i>M.W. Lee, C.H. Choi, J.H. Sung, B.S. Kim, S.G. Park, S.G. Lee, E.H. Lee, B.H. O</i>	
A Fast Quasi-3D Finite-Element Beam Propagation Method in Time Domain	836
<i>Yu Bing, Sun Xiaohan</i>	
Ultra-Broadband Optical Filter based on Long-Period Fiber Gratings using Higher-Order Cladding Modes.....	838
<i>Myoung Jin Kim, Yong Min Jung, Bok Hyeon Kim, Won-Taeck Han, Byeong Ha Lee</i>	
Organic Thin-Film Transistor from Solution-Processed Precursor Film	840
<i>Reiji Hattori</i>	
Design and Image Processing of Novel Diffractive esign Optical Modulator for Embedded Mobile Display Applications.....	842
<i>SangKyeong Yun, J.H.Song, S.D.An, H.W.Park, H.S.Yang, K.B.Han, Y.J.Chi, I.J.Yeo, Y.G.Lee, V.Yurlov, I.Shyshkin, A.Lapchuk, Y.K.Back, D.H.Bae, G.Y.Byun, J.P.Cheong, H.Y.Hwang, Y.N.Hwang, J.W.Jang, E.J.Kim, H.Y.Kim, J.H.Kim, C.M.Koh, J.H.Kyoung, H.K.Lee</i>	
Analysis of light propagation in biaxial medium on the Poincare sphere.....	844
<i>Gak Seok Lee, Jeong Hyun Lee, Jae Chang Kim, Tae-Hoon Yoon</i>	
Ion Beam Alignment of Liquid Crystal on SiOC Films.....	846
<i>Phil Kook Son, Jae Chang Kim, Tae-Hoon Yoon</i>	
Phase-Sensitive Nonlinear Optical Spectroscopy	848
<i>Y. R. Shen</i>	
2-Dimensional Non-Linear Surface Vibrational Spectroscopy.....	849
<i>Mischa Bonn, Avishhek Ghosh, Marc Smits, Jens Bredenbeck</i>	
New Interface-Selective Even-Order Nonlinear Spectroscopy	851
<i>Shoichi Yamaguchi, Tahei Tahara</i>	
Novel Optical Parametric Devices based on Periodically-Poled Ferroelectric Crystals.....	853
<i>A. H. Kung</i>	
Generation of Simultaneous Red, Green and Blue Light based on Broad Quasi-Phase-Matched Optical Parametric Generation.....	854
<i>Hwan Hong Lim, Oc Yeub Jeon, Byeong Joo Kim, Krishnamoorthy Piyan, Myoungsik Cha</i>	
Electro-optic PPLN Bragg Modulator as a Laser Q-switch.....	856
<i>Y. Y. Lina, S. T. Lina, G.W. Changa, A. C. Chianga, Y. H. Chenb, Y. C. Huanga</i>	

Table of Contents

Sole filtering characteristics in a periodically poled Ti:LiNbO ₃ waveguide	858
<i>Y. L. Lee, N. E. Yu, B.-A. Yu, W. Shin, T.-J. Eom, C.-S. Kee, Y.-C. Noh, D.-K. Ko, J. Lee</i>	
All-Optical NOT Gate Using Periodical Poled Lithium Niobate Waveguides	860
<i>Shih-Chiang Lin, Nai-Hsiang Sun, Jung-Sheng Chiang</i>	
Nonlinear Optics and Materials for Mid-IR and THz-wave.....	862
<i>Hiromasa Ito</i>	
Quasi-phase-matched nonlinear optical devices	863
<i>Sunao Kurimura</i>	
Temperature dependences of the electro-optic coefficient in DKDP crystal	865
<i>Y. Takeuchi, A. Yoshida, S. Tokita, M. Fujita, J. Kawanaka</i>	
Laser-diode pumped Nd:GGG laser at 938nm	867
<i>Chunyu Zhang, Kunna He, Dehua Li, Zhiguo Zhang, Zhiyi Wei, Chunqing Gao</i>	
Developing Intravital Multiphoton Microscopy for Biomedical Research	869
<i>Chen-Yuan Dong</i>	
Optical Guidance of Brain Therapies	871
<i>Anita Mahadevan-Jansen</i>	
Diagnosis of Cervical Intraepithelial Neoplasm (CIN) Using Polarization-Sensitive Optical Coherence Tomography	873
<i>Sang-Won Lee, Ji-Young Yoo, Jin-Ho Kang, Moon-Sik Kang, Soon-Hee Jung, YoSep Chong, Dong-Soo Cha, Kyung-Hee Han, Han-Young Choi, Beop-Min Kim</i>	
Single molecule detection on surface-enhanced Raman scatter-ing substrate fabricated by femtosecond laser direct writing.....	875
<i>Zenghui Zhou, Jian Xu, Guiying Wang, Ya Cheng, Zhizhan Xu</i>	
Recent Advances in Optical Tomographic Imaging	877
<i>Andreas H. Hielscher</i>	
Maximum-intensity-projection images of human sweat glands using optical coherence tomography	879
<i>Yoshihiro Ueda, Akihiro Yamada, Masato Ohmi, Masamitsu Haruna</i>	
Development of Er-doped Fluoride Fibre Laser for Measurement of Oxygen Saturation in the Retinal Blood	881
<i>D. Yamane, D. Nakamura, T. Okada</i>	
Contrast enhancement laser speckle imaging system using optical clearing agent.....	883
<i>Taeyoon Son, Jinhee Yoon, Byungjo Jung</i>	
Quantitative cell analysis <i>in situ</i> on a short time scale using a microscale cell culture assay.....	885
<i>Taek-il Oh, Jong Hwan Sung, Daniel A. Tatosian, Michael L. Shuler, Donghyun Kim</i>	
Talking to neurons using light	887
<i>E. Duco Jansen</i>	
Application of ultrafast laser for non-invasive optical processing.....	888
<i>Sae Chae Jeoung</i>	
UV absorption of single living cancer cells for NIR femtosecond laser cell processing.....	890
<i>Sung-Hak Cho, Byung-Hyon Yoo, Hee-Won Im, Won-Seok Chang, Jae-Goo Kim, Kyoung-Hyun Whang, Kyeong-Sook Choi, Seong-Hyang Sohn</i>	
The application of optical coherence tomography for monitoring of the laser marking performance	892
<i>Youngseop Kim, Eun Seo Choi, Yongjin Shin, Woonggyu Jung, Yeh-Chan Ahn, Zhongping Chen</i>	
Vector Mapping of Local Electric Fields	894
<i>K. G. Lee, H. W. Kihm, W. J. Choi, Q-Han Park, D. S. Kim</i>	

Table of Contents

Light Emission from Quantum Dots embedded in a Photonic Double-Heterostructure Nanocavity	896
<i>Wolfgang C. Stumpf, Masayuki Fujita, Makoto Yamaguchi, Takashi Asano, Susumu Noda</i>	
Butt-end fiber coupling to a surface-emitting G-point photonic crystal band edge laser	898
<i>Yeonsang Park, Sunghwan Kim, Chaeyoung Moon, Heonsu Jeon</i>	
Electrically-driven single-cell hexapole mode photonic crystal laser	900
<i>Min-Kyo Seo, Kwang-Yong Jeong, Jin-Kyu Yang, Yong-Hee Lee</i>	
High Quality Factor Circular Photonic Crystal Microcavity Lasers.....	902
<i>Tsan-Wen Lu, Jyun-Hao Fan, Feng-Mao Tsai, Po-Tsung Lee</i>	
Fabrication and characterization of photonic crystal nanocavity with degenerated cavity modes for generating entangled photon pairs using quantum dots	904
<i>Yasutomo Ota, Masahiro Nomura, Naoto Kumagai, Katsuyuki Watanabe, Satomi Ishida, Satoshi Iwamoto-, Masayuki Shirane, Shunsuke Kono, Shinichi Yorozu, Yasuhiko Arakawa</i>	
Demonstration of High-Q Photonic Crystal H1-defect Nanocavities after Closing of Photonic Bandgap.....	906
<i>A. Taechanurat, S. Iwamoto, M. Nomura, N. Kumagai Y. Arakawa</i>	
Nonlinear Opto-mechanics Using Radiation Pressure in High-Q Microcavities	908
<i>Kerry Vahala, Tobias Kippenberg, Tal Carmon, Mani Hossein Zadeh</i>	
Novel properties of a microppherical cavity coupled with a tapered fiber	910
<i>Keiji Sasaki</i>	
Whispering-Gallery Microsensors and Microlasers	912
<i>A. T. Rosenberger</i>	
Rotating optical microcavities	914
<i>Takahisa Harayama Satoshi Sunada</i>	
Characteristics of single modes in a quadrupole-deformed microcavity of low index of refraction	916
<i>Kyungwon An</i>	
Avoided resonance crossings and photon statistics in semiconductor microcavity lasers.....	918
<i>J. Wiersig, C. Gies, M. Lorke, F. Jahnke, M. Hentschel</i>	
Quantum Control of Single Spins and Photons in Diamond: Towards Solid-state Implementation of Quantum Repeaters.....	920
<i>Lily Childress</i>	
Frequency Comparison between Optical Lattice Clocks	921
<i>Hidetoshi Katori, Masao Takamoto, Tomoya Akatsuka, Ryoichi Higashi</i>	
An Optical Lattice Clock with Fermionic and Bosonic Sr Atoms	923
<i>X. Baillard, M. Fouché, R. Le Targat, P. G. Westergaard, A. Lecallier, F. Chapelet, S. Bize, P. Rosenbusch, M. Abgrall, P. Laurent, Y. Lecoq, G. D. Rovera, A. Clairon, P. Lemonde</i>	
High-Resolution Laser Spectroscopy of Ultracold Ytterbium Atoms.....	925
<i>T. Fukuhara, A. Yamaguchi, M. Kitagawa, S. Uetake, K. Enomoto, Y. Takasu, Y. Takahashi,</i>	
Controllable Majorana Transition in Spinor Bose-Einstein Condensate	927
<i>Xuzong Chen, Lin Xia, Xu Xu, Fan Yang, Wei Xiong, Juntao Li, Qianli Ma, Lin Yi, Xiaoji Zhou Hong Guo</i>	
Determination of the Atom Number in a Bose Condensate by Optical Pumping	929
<i>Hung-Wen Cho., Yan-Chen He, Thorsten Peters, Sheng-Chiun Lin, Ite A. Yu</i>	
Photo-Mechanical Effect of Photoassociation : a New Method to Measure the Scattering Length of Ultracold Metastable Helium Atoms.....	931
<i>J. Kim, S. Moal, M. Portier, M. Leduc</i>	
Biphoton ququarts and their entanglement.....	933
<i>Yoon-Ho Kim</i>	

Table of Contents

Analysis of the entanglement of down converted photon pairs passing through double slits	935
<i>G. Taguchi, T. Hirama, K. Kasai, T. Dougakiuchi, H. F. Hofmann, Y. Kadoya</i>	
Entanglement of quantum states between macroscopic and microscopic systems	937
<i>Juhui Lee, Sergey A. Podoshvedov, Jaewan Kim, Sung Dahn Oh</i>	
Preparation of general single-ququart states using ultrafast spontaneous parametric down-conversion	939
<i>So-Young Baek, Stanislav S. Straupe, Sergei P. Kulik, Yoon-Ho Kim</i>	
Directional Property of Radiation Emitted from Entangled Atoms	941
<i>Byung Gyu Kim, C.H.Raymond Ooi, Hai-Woong Lee</i>	
From Quantum Key Distribution to Quantum Secure Direct Communication.....	943
<i>Gui Lu Long, Chuan Wang, Fu-Guo Deng, Wan-Ying Wang</i>	
Free space distribution of entangled photons pairs in daylight conditions.....	945
<i>Antia LamasLinares, Ivan Marcikic, Caleb Ho, Matthew Peloso, Christian Kurtsiefer</i>	
Bidirectional coincidence counting of correlated photons to determine the detection efficiency of a single-photon detector without a reference standard	947
<i>A. Yoshizawa, S. Odate, D. Fukuda, H. Tsuchida,</i>	
A Microlaser Pumped by Atoms in Polarized States	949
<i>Young-Tak Chougha Kyungwon Anb</i>	
Numerical Simulation of Two-color Stationary Light.....	951
<i>Y. Chen B. S. Ham</i>	
Optical Quantum Computation with Continuous-Variable Cluster States.....	953
<i>Peter van Loock</i>	
Analyzing and Implementing N-qubit Controlled Gates	955
<i>Yang Liu, Yang Sun y Gui Lu Long</i>	
Switching Persistent Supercurrent on an Atom Chip	957
<i>Christoph Hufnagel, Tetsuya Mukai, Fujio Shimizu</i>	
Quantum Fourier Transform in a d-level Quantum System	959
<i>Ye Cao, Shi-Guo Peng, Gui Lu Long</i>	
Elaboration of Linear-optical Implementations of Quantum Algorithms with Single and Double-photon Entangled States.....	961
<i>Sangkyung Lee, Sanghyuk An, Koji Nagata, Jaewook Ahn</i>	
Light Tunneling In Multilayer Structures Consisting of Single-Negative Materials.....	963
<i>Hong Chen, Haitao Jiang, Zhiguo Wang Yeweng Zhang Shiyao Zhu</i>	
Enhanced group velocity dispersion and nonlinearity for a weak field using quantum coherence.....	965
<i>X. M. Su, B. S. Ham, Z. C. Zhuo, J. B. Kim</i>	
Reducing pulse distortion in fast light pulse propagation by Pulse-on-Background method through an erbiumdoped fiber amplifier.....	967
<i>Heedeuk Shin, Aaron Schweinsberg, George Gehring, Robert W. Boyd</i>	
The optical Hall effect in tightly focused light beams.....	969
<i>Ze'ev Bomzon Min Gu</i>	
Coherent Control within Photonic Bandgap for Low-loss Quantum Information Processing.....	971
<i>Hiroyuki Nihei Atsushi Okamoto</i>	
Nonlocal Dispersion Control of a Localized Single-Photon Wave Packet	973
<i>So-Young Baek, Osung Kwon, Yoon-Ho Kim</i>	
P-Substrate Small-Aperture Holey Light-Emitting Diodes for Fiber-Optic Applications.....	975
<i>Hung-Pin D. Yang, Jui-Nung Liu, Fang-I Lai, Hao-Chung Kuo, Rong Xuan, Jim Y. Chi</i>	

Table of Contents

Dense low threshold PQR lasers can outdo LEDs (Blue Quest)	977
<i>Y. C. Kim, Y. J. Lee, S. S. Kim O'Dae Kwon, Bei Zhang, X. N. Kang G. Y. Zhang</i>	
A new method for measurement of the fundamental device parameters in a GaN-based light emitting diode.....	979
<i>Hyunsung Kim Jongin Shim</i>	
Theoretical and Experimental Analysis of Temperature- Insensitive 655-nm Resonant-Cavity LEDs.....	981
<i>Jun-Rong Chen, Yi-An Chang, Hao-Chung Kuo, Tien-Chang Lu, Yen-Kuang Kuo, Shing-Chung Wang</i>	
Degradation Modes of InGaN Blue-Violet Laser Diodes Grown on Bulk GaN Wafers.....	983
<i>Chong Cook Kim, Yoonho Choi, Min-Soo Noh</i>	
Investigation of AlGaN/GaN metal-oxidesemiconductor high electron mobility transistors using Photoelectrochemical Oxidation Method.....	985
<i>Li-Hsien Huang, Shu-Hao Yeh, Ching-Ting Lee, Haipeng Tang, Jennifer Bardwell James B. Webb</i>	
Optically and Electrically Pumped GaN-based VCSELs.....	987
<i>T. C. Lu, C. C. Kao, G. S. Huang, H. C. Kuo S. C. Wang</i>	
Single-Mode 780 nm Multi-Leaf Holey Vertical-Cavity Surface-Emitting Lasers	989
<i>Hung-Pin D. Yang, Jui-Nung Liu, Zao-En Yeh, Fang-I Lai, Tsin-Dong Lee, Hao-Chung Kuo, Rong Xuan, Jim Y. Chi</i>	
ZnSe-based microcavity fabricated using epitaxial liftoff.....	991
<i>A. Curran, J. K. Morrod, K. A. Prior, A. K. Kar R. J. Warburton</i>	
Mega-pixel photonic quantum ring laser chip	993
<i>J. H. Yoon, S. E. Lee, O'Dae Kwon</i>	
Application of external cavity semiconductor lasers in optical chaos communications	995
<i>K. A. Shore, M. W. Lee, J. Paul, Y. Hong, I. Pierce P. S. Spencer</i>	
Progress in integrated widely tunable edge-emitting 1.55 μm laser diodes	997
<i>G. Morthier, R. Todt, M.-C. Amann, J-O. Wesström, G. Sarlet</i>	
Laterally varying porous silicon optical tunable filter fabricated using a tapered etch mask pattern	999
<i>Kyungwook Hwang, Sihan Kim, Yeonsang Park, Heonsu Jeon</i>	
An 80-GHz chirp-free carrier-suppressed optical pulse generator using cascaded 20-GHz clock-driven Mach-Zehnder modulators	1001
<i>Guo-Wei Lu, Tetsuya Miyazaki</i>	
10-GHz-order shifting frequency multiplier for an optical frequency based on a multistage slant periodic domain inversion of an electrooptic crystal.....	1003
<i>Shintaro Hisatake Tetsuro Kobayashi</i>	
70 nm Fast Wavelength Sweep using SSG-DBR Lasers.....	1005
<i>N. Fujiwara, R. Yoshimura, K. Kato, H. Ishii, Y. Kawaguchi, Y. Kondo, H. Oohashi</i>	
Propagation of ultrafast intense pulses in condensed media	1007
<i>A. K. Dharmadhikari</i>	
Multi-mJ, Few-Cycle Pulse Generation by Filamentation	1009
<i>Juyun Park Chang Hee Nam</i>	
Broadened supercontinuum generation and rainbow filamentation observed in silver-nanoparticle-doped water	1011
<i>Chen Wang, Yuxi Fu, Ya Cheng, Zhizhan Xu</i>	
Pointing stabilization of high-power femtosecond laser for few-cycle pulse generation	1013
<i>Takuya Kanai, Akira Suda, Samuel Bohman, Masanori Kaku, Shigeru Yamaguchi Katsumi Midorikawa</i>	
Simulation of femtosecond pulse propagation through hollow fiber in temperature gradient gases	1015
<i>Zhenming Song, Guangxiao Zhang, Shiying Cao Zhigang Zhang</i>	

Table of Contents

Development of X-ray Lasers and High-order Harmonics towards Harmonic Seeded X-ray Lasers	1017
<i>H. T. Kim, I. W. Choi, C. M. Kim, N. Hafz, J. H. Sung, T. J. Yu, K. -H. Hong, H. C. Kang, T. M. Jeong, Y. -C. Noh, D. -K. Ko, K. A. Janulewicz, J. Tümmler, P. V. Nickles, J. Lee</i>	
Acousto-Optic-Modulator-Stabilized, Low Threshold Nonlinear Mirror Mode-locked Laser	1019
<i>P K Datta, A Ray, K Hussain S Mukhopadhyay</i>	
Enhanced Bandwidth and Increased Energy from an Nd:Glass Regenerative Amplifier	1021
<i>Paramita Deb, Kailash .C.Gupta, Jayant .K. Fuloria Lalitha Dhareshwar</i>	
Transverse effects in a passively mode-locked Nd:GdVO₄ laser	1023
<i>Hsiao-Hua Wu, Chi-Rong Huang, Jian-Tzung Huang</i>	
Group delay dispersion measurement of Yb:YAB crystal with white-light interferometry	1025
<i>Weijian Yang, Jing Li, Fan Zhang, Yuanyang Zhang Zhigang Zhang</i>	
Ultrashort Pulse Generation by SPICE Simulation of Gain Switching in Quantum Well Laser	1027
<i>Sadettin Özyazici Nuran Dogru</i>	
Sub-100 fs Electron and Proton Transfer: the Role of the Environment	1029
<i>Eberhard Riedle, Uli Schmidhammer, Christian Schriever, Uwe Megerle, Stefan Lochbrunner</i>	
Rebinding dynamics of CO to Guanidine HCl-denatured heme proteins	1031
<i>Jaeheung Park, Jooyoung Kim, Taegon Lee Manho Lim</i>	
Perturbation of Electronic States and Energy Relaxation Dynamics in Phenylene Bridged ZnII Porphyrin Dimers.....	1033
<i>Sung Cho, Min-Chul Yoon, Chul Hoon Kim, Naoki Aratani, Goro Mori, Taiha Joo, Atsuhiro Osuka, Dongho Kim</i>	
The Hollow on the Excited-State Potential for Photoinduced 'Jahn-Teller' Distortion of Copper Complexes Revealed by Ultrafast Spectroscopy	1035
<i>Munetaka Iwamura, Kunihiko Ishii, Satoshi Takeuchi Tahei Tahara</i>	
Effects of conformational diversity on the excited state intramolecular reaction dynamics in condensed phases.....	1037
<i>Chul Hoon Kim Taiha Joo</i>	
Analysis of the vibrational structures from the autoionization in O₂ using harmonics	1039
<i>Kyung Sik Kang, Kyung Taec Kim, Baek Il Nam, Tayyab Imran, Changjun Zhu, E. Krishnakumar, Chang Hee Nam</i>	
Probing Local Structure of Ionic Liquids with Picosecond Time-resolved Raman Spectroscopy	1041
<i>Koichi Iwata, Kyosuke Yoshida, Hiro-o Hamaguchi</i>	
Novel Enabling Technologies for Convergence of Optical and Wireless Access Networks.....	1043
<i>Jianjun Yu</i>	
A gain-clamped SOA-Raman hybrid amplifier for a CWDM access network without gain-saturation induced crosstalk	1045
<i>H. H. Lee, P. P. Iannone, K. C. Reichmann, J. Lee</i>	
Protection Architecture for WDM based Access Network with Colorless ONUs	1047
<i>Kwanil Lee Sang Bae Lee, Sil-Gu Mun Chang Hee Lee</i>	
FTTx Confidential Enhancement with Reconfigurable Time-Spreading and Wavelength-Group-Hopping.....	1049
<i>Jen-Fa Huang, Yao-Tang Chang, Li-Wei Chou Kai-Chun Hsu</i>	
Report on 40GHz-RoF Bidirectional Transmission Experiment System with Pilot Tone*	1051
<i>Minglei Xiu, Ruijan Lin</i>	
CATV/ROF Transport Systems Based on Light Injection/Opto electronic Feedback Techniques and Photonic Crystal Fiber	1053
<i>Yu-Chieh Chi, Hai-Han Lu, Po-Chou Lai, Hoshin Yee, Sha-Jye Tzeng</i>	

Table of Contents

Improvement of Full-duplex Radio-over-Fiber System Performance Employing Wavelength Reuse Technique	1055
<i>Hong Wen, Lin Chen, Cheng Huang, Shuangchun Wen</i>	
Effect of Laser Linewidth on Millimeter-wave Radio-over-Fiber System Employing Optical Frequency Multiplying	1057
<i>Ruijan Lin, Minglei Xiu</i>	
Employing Fabry-Perot Etalon in Full-Duplex Radio-on-Fiber Transport Systems.....	1059
<i>Wen-I Lin, Hai-Han Lu, Wen-Jeng Ho, Po-Chou Lai, Hoshin Yee</i>	
Reconfigurable and Scalable Optical Transport System Based on OOO and OEO Hybrid Switching.....	1061
<i>Kwangjoon Kim, Sang Soo Lee, Sun Hyok Chang, Hwan Seok Chung Young Hwa Kim</i>	
Performance Evaluation of Multimedia Traffic on Multi-Protocol Optical Switch Routing Algorithm	1063
<i>Kharina Khairi, Bernard HL Lee, Zailani Omar, Romli Mohamad, Kaharudin Dimyati</i>	
A Wavelength Reusable Metro WDM Star Network with a Hybrid MAC Protocol.....	1065
<i>Syed Abdul Mannan Kirmani, Hyo-Sik Yang, Seoyong Shin</i>	
Generation of 100-Gbps optical packets with 8-bit RZ pulse patterns using an optical pulse synthesizer.....	1067
<i>Ryo Kobe , Shinsuke Takeda, Tatsutoshi Shioda, Yosuke Tanaka, Hiroyuki Tsuda Takashi Kurokawa</i>	
A Solution for Conducting Ethernet over Optical Metropolitan Networks	1069
<i>Nguyencac Tran, Ealle Kim, Kwangjoon Kim Jinwoo Park</i>	
Architecture and Performance of Multicasr Optical Network.....	1071
<i>Weisheng Hu, Yaohui Jin, Weiqiang Sun, Wei Guo, Jun Sun, Jun Zhou</i>	
Three-dimensional metal microfabrication technique by using two-photon reduction.....	1073
<i>Nobuyuki Takeyasu, Takuo Tanaka, Satoshi Kawata,</i>	
Er doped silicon-rich-silicon nitride(SRSN) Microdisk.....	1075
<i>Jee Soo Chang, Shinyoung Lee, Jung H. Shin, Jae-Heon Shin Gun Yong Sung</i>	
Optical Characterisation of CdSe Nanocrystal Quantum Dots Grown from New Single Source Precursors.....	1077
<i>Stuart K. Stubbs David J. Binks, Farzana Aslam, Chinh Q. Nguyen, Azad Malik Paul O'Brien, Clare C. Byeon, Do-Kyeong Ko Jongmin Lee</i>	
Optical memory using photoluminescence change in silver-doped glasses.....	1079
<i>Kyung-Sik Jang, Jong-Ho Shin, Sunkyun Lee, Ki-Soo Lim, Ik-Bu Sohn</i>	
Control of frequency chirp in a PPKTP optical parametric oscillator with near Fourier-limited bandwidth.....	1081
<i>Kenneth G. H. Baldwin, Mitsuhiro Kono, Richard T. White, Yabai He Brian J. Orr</i>	
Optical parametric chirped pulse amplification in periodically poled LiTaO₃ at multi-kHz repetition rates.....	1083
<i>W. B. Cho, K. Kim, F. Rotermund, J. Lee H. Lim, S. Kurimura</i>	
Optical parametric amplification of mid-infrared femtosecond pulses using periodically-poled lithium niobate.....	1085
<i>Takahiro Mochizuki, Shunsuke Yamamoto, Tsutomu Shimura, Kazuo Kuroda, Satoshi Ashihara</i>	
Generation of high-repetition rate pulse trains up to 20 THz using the femtosecond pulse shaping	1087
<i>Ji-Hee Kim, Kang-Jeon Han, Dong-Wook Chang, Nam-Je Kim, Ki-Ju Yee</i>	
High energy optical parametric amplifier pumped by 400nm picosecond Ti:sapphire laser	1089
<i>Jiangfeng Zhu, Weijun Ling, Zhaohua Wang, Xin Zhong, Chenxia Yun, Peng Wang Zhiyi Wei, Dacheng Zhang, Xinwen Ma Wenlong Zhan</i>	
Nonlinear Optical Processes in Photonic Bandgap Structures	1091
<i>J. W. Wu</i>	
Dynamics of Photo-induced Optical Nonlinearity Enhancement of Azo-benzene doped Liquid Crystals	1093
<i>Lei Xu, Xiu Liu,Liyong Ji,Pei Yang,Liying Liu</i>	

Table of Contents

CARS Imaging of Periodically Poled Lithium Niobate Using Terahertz-Frequency Phonon Modes.....	1095
<i>Jun-ichi Shikata, Kazuhisa Endo, Akira Nawahara, Shigehiro Nagano, Hiromasa Ito</i>	
Coherence Dynamics of Excitons in Symmetric Coupled Quantum Well System.....	1097
<i>H. Tsuji, Y. Uchida, Y. Matsuda, M. Kondo, K. Fujii, H. Miyagawa, N. Tsurumachi, S. Koshiba, H. Itoh S. Nakanishi</i>	
Charge Inversion at the Surface by Adsorption of Trivalent Cations on Langmuir Monolayer	1099
<i>Sangjun Seok Doseok Kim</i>	
Polarization Measurement Using Two-Photon Absorption of a Si Avalanche Photodiode.....	1101
<i>Toshiaki Kagawa</i>	
Enhanced polarization effects on quasi-two-dimensional metal chiral nanogratings.....	1103
<i>Makoto Kuwata-Gonokami</i>	
Ultra-Flattened Chromatic Dispersion Controllability using defected-innermost rings PCFs with elliptical pores.....	1105
<i>N. Hoang Haia), Y. Namihirab), S. Kaijage, F. Begum, S. M Abdur Razzak, T. Kinjo, N. Zou</i>	
3D-FDTD Algorithm with Anisotropic Resolutions for Analyses of Photonic Crystal Fibers.....	1107
<i>Vu Ngoc Hai, Young-Ho Kim, In-Kag Hwang</i>	
Ultrahigh Birefringent Elliptic Core Holey Fibers	1109
<i>Soan Kim, Chul-Sik Kee, Do-Kyeong Ko, Jongmin Lee, Yongmin Jung, Hyoung-Gyu Choi, Kyunghwan Oh</i>	
Dispersionless tunneling of slow light in antisymmetric photonic-crystal couplers.....	1111
<i>Sangwoo Ha, Andrey A. Sukhorukov, Kokou B. Dossou, Lindsay C. Botten, Yuri S. Kivshar</i>	
Leaky-mode resonance photonics: Principles and applications	1113
<i>R. Magnusson M. Shokooh-Saremi</i>	
Resonant Radiation Force on a Quantum Dot by Multiple Laguerre-Gaussian Beams	1115
<i>Takuya Iida, Takashi Yoshimizu, Hajime Ishihara</i>	
Demonstration of Slow Light via Population Oscillation in Quantum Dot VCSEL	1117
<i>R. Xuan, J. Y. Chi, P. C. Peng, H. P. Yang, C. L. Chao, J. F. Chen</i>	
Long-range surface plasmon polariton waveguides for optical interconnections	1119
<i>Jung Jin Ju, Suntak Park, Min-su Kim, Jin Tae Kim, Seung Koo Park, Myung-Hyun Lee</i>	
Analysis of Output Coupling Efficiencies for Directional Emission Triangle and Square Microlasers.....	1121
<i>Yong-Zhen Huang Wei Zhao</i>	
Plasmonics: tailoring dispersion, and thermal emission	1123
<i>M. Soljacic, A. Karalis, D.L.C.Chan, E. Lidorikis, M. Ibanescu, J. D. Joannopoulos</i>	
Angle-Dependence of Nano-Slit Optical Transmission	1125
<i>Reuven Gordon</i>	
Dispersion relation and its solution using Kuhn algorithm in stratified media accompanying with surface plasmon resonance.....	1127
<i>Yongjun Lim, Seyoon Kim, Byoungho Lee</i>	
Far-Field Analysis of a Metal Nanorod Yagi-Uda Antenna Array	1129
<i>T. Kosako, T. Yamashita, H. F. Hofmann, Y. Kadoya</i>	
Nanostructure Induced Surface Plasma Resonance of Broadband Organic Emitting Materials	1131
<i>Shou-Yu Nien, Nan-Fu Chiu, Chun Yu, Jium-Haw Lee, Chii-Wann Lin,</i>	
'Metal Binding Factor' - A Core Parameter for Long-Range Surface-Plasmon-Polariton Modes	1133
<i>Min-su Kim, Suntak Park, Jung Jin Ju, Jin Tae Kim, Seung Koo Park, Woo-Kyung Kim, Myung-Hyun Lee</i>	
High Optical Efficiency of ZnO Nanoparticles	1135
<i>Sumeyra Teka,c Hilmi Volkan Demira, Dilek Yucel Gulsen Celiker</i>	

Table of Contents

Efficient Probing Of Few Atom Fluorescence through the Guided Mode of an Optical Nanofiber.....	1137
<i>K. P. Nayak, P. N. Melentiev, M. Morinaga, Fam Le Kien, V. I. Balykin, K. Hakuta</i>	
Enhanced chaos-assisted optical pumping of a deformed microcavity	1139
<i>Juhee Yang, Sang-Bum Lee, Jeong-Bo Shim, Songky Moon, Sang Wook Kim, Jai-Hyung Lee, Kyungwon An</i>	
Alternate oscillations with phase difference in Quasi-Stadium Laser Diodes	1141
<i>Muhan Choi, Takehiro Fukushima, Takahisa Harayama</i>	
Mode Exchange by Cyclic Parameter Variation in Dielectric Microcavity.....	1143
<i>Soo-Young Lee, Jung-Wan Ryu, Jeong-Bo Shim, Sang Wook Kim, Jai-Hyung Lee, Kyungwon An</i>	
Surface mapping of 2-D opaque microscopic objects via forward shadow diffraction	1145
<i>Songky Moon, Jeong-Bo Shim, Sang-Bum Lee, Juhee Yang, Sang Wook Kim, Jai-Hyung Lee, Kyungwon An</i>	
Spontaneous symmetry breaking in parametrically driven atomic trap and observation of critical phenomena	1147
<i>Wonho Jhe, Myoung-Sun Heo, Yonghee Kim, Kiwhan Kim, Heung-Ryoul Noh</i>	
"Quantum engineering with neutral atoms one by one".....	1149
<i>D. Meschede</i>	
Transient behavior of atomic population at unstable State in parametrically driven magneto-optical trap	1151
<i>Myoung-Sun Heo, Yonghee Kim, Heung-Ryoul Noh Wonho Jhe</i>	
Measurement of loading and loss rates in a magnetooptical trap by direct event counting with atom number feedback	1153
<i>Youngwoon Choi, Seokchan Yoon, Sungsam Kang, Wookrae Kim, Jai-Hyung Lee, Kyungwon An</i>	
Advances in rapidly swept cavity ringdown spectroscopy for gas sensing	1155
<i>Yabai He Brian J. Orr</i>	
Fiber optic methane sensing system based on wavelength modulation spectroscopy by using logarithm method	1157
<i>Haiwen Cai, Yuntao Wang, Jianxin Geng, Zujie Fang</i>	
Particle Size Measurement of Silole Nano-clusters by Fluorescence Correlation Spectroscopy	1159
<i>Sung Hyun Kim, Doseok Kim, Ben Zhong Tang</i>	
Low-Light-Level All-Optical Switching.....	1161
<i>Ite A. Yu, Chang-Yi Wang, Yong-Fan Chen, Sheng-Chiun Lin, Wei-Hsun Lin, Pei-Chen Kuan</i>	
High-resolution Spectroscopy using Phase Modulation of Frequency Comb Light	1163
<i>Tatsutoshi Shioda, Takayoshi Mori, Tatsuya Sugimoto, Yosuke Tanaka, Takashi Kurokawa</i>	
Diffractive-optic three-dimensional image generation with spatial light modulators	1165
<i>Byoungho Lee, Hwi Kim, Joonku Hahn, Howon Lee</i>	
Highly Sensitive and Compact Molecular Sensor Using Surface Enhanced Raman Scattering and Optical Fibers	1167
<i>Claire Gu, Yi Zhang, Chao Shi, Adam M. Schwartzberg, Leo Seballos, Jin Z. Zhang</i>	
Implementation of a 40-inch tiled projection integral imaging system	1169
<i>Jooohwan Kim, Yunhee Kim, Heejin Choi, Seong-Woo Cho, Youngmin Kim, Junghyun Park, Gilbae Park</i>	
<i>Byoungho Lee</i>	
The development of the transmission and reflection type microscope using digital hologram.....	1171
<i>Moonseok Kim, Hyoungwoo Lee, Kwanhyung Kim, Sanghoon Shin, Sungkyu Kim, Jaihyung Lee, Jaisoon Kim</i>	
Femtosecond Information Processing Using Low Density Gratings	1173
<i>Changhe Zhou,</i>	
Ultra-fast Optical Signal Processing using Optical Time-Space Conversion	1175
<i>Tsuyoshi Konishi</i>	

Table of Contents

Phase-only decryption by use of a single spatial light modulator.....	1177
<i>Tien Viet Vu, Nam Kim, Jun-Won An, Sang-Keun Gil</i>	
Unitary Variable Threshold Optical Limiter without Bulky Optical Systems.....	1179
<i>Hiroomi Goto, Tsuyoshi Konishi Kazuyoshi Itoh</i>	
Fourier Transforms in Optical Information Processing	1181
<i>Suga Jutamulia, Feijun Song, Ying Zhang</i>	
Low-power all-optical switches based on active nonlinear interferometers	1183
<i>Chunfei Li, Na Dou, Li Xin, Guangyu Fang Fei Wang</i>	
Demonstration of 10 Gbps Optical Encryption and Decryption by Using Semiconductor Optical Amplifiers	1185
<i>C. W. Son, Y. J. Jung, S. Lee, J. H. Kim, S. K. Gil, N. K. Park</i>	
Demonstration of an Ultra-fast Encryption for an OTDM/WDM Signal Expressed as a 2D Image	1187
<i>Ryosuke Itoh, Tsuyoshi Konishi, Kazuyoshi Itoh</i>	
The layout design of LEDs in an LED-based reading light system using a Genetic Algorithm.....	1189
<i>Wen-Gong Chen Chii-Maw Uang</i>	
Optical manipulation of micro-particles with Laguerre-Gaussian mode beam	1193
<i>U. J. Park, S. H. Song</i>	
High-Power and Highly Efficient Yb³⁺-doped Y₃Al₅O₁₂ Ceramic Laser at Room Temperature	1195
<i>Shinko Nakamura, Yu Matsubara, Takayo Ogawa, Satoshi Wada</i>	
Design of a BG-AOM based on the Combined Finite Elements and Transfer Matrix Method.....	1197
<i>Roberson A. Oliveira, Paulo T. Neves Jr, Alexre A. A. Pohl, Jucelio T. Pereira</i>	
SiOx Coverage Mesa-typed InGaAs/InP P-IN Photodetector	1199
<i>Roberson A. Oliveira, Paulo T. Neves Jr, Alexandre A. A. Pohl, Jucelio T. Pereira</i>	
Fast neutron emission from a deuterated polystyrene solid target irradiated by a high-intensity laser pulse.....	1201
<i>Sungman Lee, Sungok Kwon, Kitae Lee, Yong-Ho Cha, Kwon-hae Yea, Yong Woo Lee, Ji Young Lee, Young Uk Jeong, Yong Joo Rhee, Hyungki Cha</i>	
Experimental realization of a two-photon four-qubit cluster state from a single Bell-state photon pair	1203
<i>Hee Su Park, Jaeyoon Cho, Jong Moon Park, Jae Yong Lee, Dong Hoon Lee, Sang-Kyung Choi</i>	
Phase-contrast Microscopy by In-line Phase-shifting Digital Holography	1205
<i>Jeon Woong Kang Chung Ki Hong</i>	
Thermal Loading Affecting the Measurements of Thermally Induced Focal Length.....	1207
<i>Yung-Sheng Huang, Jian-Ren Chen, Nai-Hsiang Sun</i>	
Stable and Wavelength-range-controllable Multi-wavelength Fiber Laser Based on Raman and Erbium-doped Fiber Hybrid Gain Mechanism	1209
<i>Shan Qin, Daru Chen</i>	
OFI vacuum ultraviolet rare-gas excimer amplifier for subpicosecond VUV pulse amplification	1211
<i>Masanori Kaku, Yuta Taniguchi, Akira Hosotani, Masahito Katto, Atsushi Yokotani, Noriaki Miyanaga, Kunioki Mima, Shoichi Kubodera</i>	
Debris characteristics of a laser-produced plasma extreme ultraviolet emission source using a colloidal tin dioxide nano-particle jet target.....	1213
<i>Masanori Kaku, Sumiyoshi Suetake, Yusuke Senba, Yusuke Sato, Masahito Katto, Shoichi Kubodera</i>	
Thermal Lens Compensation of Nd:YAG Rod Laser Using a Solid-state Element with Negative dn/dT	1215
<i>Hidetsugu Yoshida, Norihiro Takeuchi, Hajime Okada, Hisanori Fujita, Masahiro Nakatsuka</i>	
Dynamics of Micro-Plasma Generated at Solid-Solid Interface Transparent Material by UV-Laser Pulses	1217
<i>Daisuke Nakamura, Jun Nishimura, Tatsuo Okada</i>	

Table of Contents

Passively Q-switched Nd:YAG ceramic laser with GaAs saturable absorber.....	1219
<i>Guoqiang Xie, Dingyuan Tang, Jian Kong Liejia Qian</i>	
Simultaneous compensation of birefringence and thermal lensing effect in a high average power Nd:YAG amplifier	1221
<i>Ravi Bhushan, Koji Tsubakimoto, Hidetsugu Yoshida, Hisanori Fujita, Masahiro Nakatsuka</i>	
Pulse shape control on PW laser for fast heating of fusion fuel.....	1223
<i>K. Sueda, J. Lu, K. Kondo N. Miyanaga</i>	
Propagation of Hermite-Gaussian Beam Array in the Far Field	1225
<i>Yu-Sheng Liu, ChiaHsu Chen, Ying-Chi Chuo</i>	
Large-clear-aperture Nd:Cr:YAG split-disk laser amplifier.....	1227
<i>Hajime Okada, Hidetsugu Yoshida, Kazuhiko Sumimura, Takahiro Sato, Hisanori Fujita Masahiro Nakatsuka</i>	
New Development on High Power Optical Pump Source.....	1229
<i>Hai-bing Li, Bao-cai Jiang, Jian-jun Liu, Jian-hua Yu</i>	
A diode-pumped, eye-safe Er, Yb:phosphate glass laser with 107 mJ output pulse energy at 5 Hz.....	1231
<i>Sungman Lee, Jeong Tae Jin, Byung Heon Cha, Cheol-Jung Kim</i>	
Laser Beam Characteristics by the Compensation of Thermal Lensing Effect in a Fiber-Coupled Laser-Diode Pumped Ceramic Nd:YAG Laser.....	1233
<i>Duck-Lae Kim Yeong-Sik Kim, Byung-Tai Kim</i>	
Polarization Mode Coupling in (100)-cut Nd:YAG	1235
<i>Aaron McKay, Judith M. Dawes, Jong-Dae Park</i>	
The Diode Laser Range Finder(DLRF) using the Cumulative Binary Detection Algorithm(CBDA).....	1237
<i>Kang, Kyung-Mok</i>	
Additional Laser Pulses due to Different Saturation Characteristics of Gain and Absorption in Passively Q-switched Lasers.....	1239
<i>C.H. Lim, K.H. Ko, D.H. Kim, H. Cha, J.D. Park, C.H. Cho, Y. I. Kang</i>	
Design of Diffractive Optical Element for Fine Beam Shaping with Simulated Annealing	1241
<i>Jinyu Wang, Yuefeng Wang, Gang Li, Wengang Hu, Jianjun Wu</i>	
Parameter-extraction method for MQW VCSEL rate-equation model for system simulation purposes.....	1243
<i>V. V. Lysak, K. S. Chang, Y. M. Song Y. T. Lee</i>	
Simple expression of laser diode multimode rate equations including band filling effects	1244
<i>Kenji Wada, Hiroyuki Yoshioka, Jiaxun Zhu, Tetsuya Matsuyama Hiromichi Horinaka</i>	
Bi-Directional Device Integrated monolithically with Semiconductor Optical Amplifier.....	1246
<i>Su Hwan Oh, Yong-Soon Baek, Chul-Wook Lee, Ki Soo Kim Kwang-Ryong Oh</i>	
Junction temperature measurement of light-emitting diodes by voltage-temperature relation method	1248
<i>Y.K. Yang, W.C. Lien, Y.C. Huang, N.C. Chen</i>	
Influence of strong reverse-bias on the leakage behavior of light-emitting diodes	1250
<i>Y.N. Wang, C.Y. Tseng, Y. C. Chen, N. C. Chen</i>	
Electrical characterization of AlN/Si(111) interface	1252
<i>C. Y. Tseng, W. C. Lien, Y. N. Wang, N. C. Chen</i>	
Investigation of Contact Properties in Carbon Nanotube Transistors Using Scanning Photocurrent Microscopy	1254
<i>Jiwoong Park</i>	
Scanning Photoconductivity and Photocurrent Imaging in Germanium Nanowires	1256
<i>Jiwoong Park</i>	

Table of Contents

Waveguide photodiode having a thin absorption layer	1258
<i>Jeong-Woo Park, Hyun-Sung Ko, Eun-Deok Sim, Yong-Soon Baek, Kyoung-Ock Kim</i>	
High-Power Broad-Band Superluminescent Diode Using Selective Area Growth at 1.5-μm Wavelength.....	1260
<i>Jung Ho Song, Kisoo Kim, Young Ahn Leem, Gyungock Kim</i>	
1.3 μm Band InGaAs MQWs with InGaP Metamorphic Graded Buffer Layer on GaAs Substrate.....	1262
<i>Masakazu Arai, Yasuhiro Kondo</i>	
Gain Characteristics of Coulomb-Correlated Quantum Wire	1264
<i>Ping Huai, Tetsuo Ogawa, Kenichi Asano, Yuhei Hayamizu, Toshiyuki Ihara, Masahiro Yoshita, Hidefumi Akiyama</i>	
1.3-μm Continuous Wave Lasing of InAs Quantum Dots with GaInNAs Covering Layer on GaAs Substrate Grown by Metal-Organic Chemical Vapor Deposition.....	1266
<i>M. Nishioka Y. Arakawa, M. Nishioka Y. Arakawa</i>	
Spatiotemporal dynamics of photonic quantum ring laser	1268
<i>D. K. Kim O'Dae Kwon</i>	
Characterization of Silicon Avalanche Photodetectors Fabricated in Standard CMOS process	1270
<i>Hyo-Soon Kang, Myung-Jae Lee Woo-Young Choi</i>	
Excessive Power Penalty due to Strong External Reflection on an Isolator Free DFB Laser Diode Transmitter	1272
<i>Jong Jin Lee, Hyun Seo Kang</i>	
Ultraviolet Photocdetector Based on Mg_xZn_{1-x}O(0=x=0.36) Thin Films Deposited by RF Magnetron Sputtering	1274
<i>Hsin-Ying Lee, Ming-Yi Wang Ching-Ting Lee</i>	
Characteristics of ultraviolet nonpolar InGaN/GaN lightemitting diodes using trench epitaxial lateral overgrowth technology	1276
<i>Shih-Chun Ling, Te-Chung Wang, Tsung-Shine Ko, Tien-Chang Lu, Hao-Chung Kuo Shing-Chung Wang</i>	
Investigation of Linewidth Enhancement Factor for Two Types of Quantum Dot Laser Diode.....	1278
<i>Kyoung Chan Kim, Young Chae Yoo, Jung Hwa Jung, Jin Wook Jeong, Il Ki Han, Jung Il Lee, Dong Ho Kim Tae Geun Kim</i>	
Strain Effects on Gain Properties of InGaAlN Blue LD.....	1280
<i>Hyung Uk Cho, Jae Seok Park, Jong Chang Yi</i>	
10 Gb/s SerDes for Bidirectional Chip-to-Memory Optical Interconnection.....	1282
<i>Nguyen Thi Hang Nga, Min Hyuk Lee, Tae-Woo Lee Hyo-Hoon Park</i>	
Improved Reflective Signal-to-Noise Ratio to Stabilize Laser Frequency using Pound-Drever-Hall Technique with Zerodur Etalon	1284
<i>Shih-Hsiang Hsu</i>	
Extending the spectral performance of CCD by anti-Stokes phosphor	1286
<i>Jinyu Wang, Gang Li, Yanxiong Niu, Wengang Hu, Yunbo Wang, Jianjun Wu</i>	
Monolithic Electroabsorption Modulator Integrated with Spot Size Converter	1288
<i>Jae-Sik Sim, Yong-Duck Chung, Kwang-Seong Choi, Young-Shik Kang, Sung-Bock Kim, Yong-Hwan Kwon, Jeha Kim,</i>	
Optical property of CdS QD's embeded in Polyvinyl alcohol.....	1290
<i>Sung Yong Ha, Il Gon Kim, Dong sun Yoo, Ki Wan Jang, Jung Du Lee</i>	
ND: YAG LASER PUMPED TUNABLE PICO SECOND ENERGY TRANSFER DISTRIBUTED FEEDBACK DYE LASER	1292
<i>M.Basheer Ahamed</i>	

Table of Contents

Broadband chirped pulse amplification at high energy Nd:glass amplifier system.....	1294
<i>Xudong Xie, Qihua Zhu, Fengrui Wang, Xiaoming Zeng, Xiao Wang, Xiaojun Huang, Fang Wang</i>	
The influence of ambient temperature on femtosecond laser ablation of semiconductor and metal	1296
<i>J. S. Yahng, J. R. Nam, T. O. Yoon, S. C. Jeoung</i>	
A study of using Dammann gratings as beam splitter in GRENOUILLE technique	1298
<i>Wei Jia, Changhe Zhou, Enwen Dai</i>	
Temporal Characterization of ASE Separated from Main Pulses in a 10-TW Ti:sapphire Laser.....	1300
<i>Yong-Ho Cha, Yong-Woo Lee, Sung Mo Nam, Jae Min Han, Yong Joo Rhee, Hyung Ki Cha, Young Uk Jeong</i>	
Cold plasma generation by optical field ionization with hydrogen and helium gas mixture	1302
<i>J. Kim, J. Ahn, Y. Avitzour, D. Kim, S. Suckewer</i>	
Enhancement of Electron Beam Generation by Using a Steep Downward Density Gradient	1304
<i>Hyojae Jang, Jaehoon Kim, Seunghoon Yoo, Ilmoon Hwang, Min Sup Hur, Moo-hyun Cho, Won Namkung, Hyyong Suk</i>	
Generation of Femtosecond Thomson X-rays with 0.8μm Laser Backscattered from the Density-transition Plasma LWFA Mono-energetic Electron Beam	1306
<i>Jaeku Lim, Jae Hoon Kim, Min Sup Hur, Hyyong Suk</i>	
Higher Harmonics Generation in a Two-Dimensional Electron Gas under a Quantizing Magnetic Field	1308
<i>N. Hiraiwa, M. Fujita, T. Fukuda, K. Ito, H. Koizumi, T. Toyoda</i>	
Optical damage evaluation of a CPA Ti:sapphire laser for the safe design of a PW system	1310
<i>Kyung-Han Hong, Tae Jun Yu, Jae Hee Sung, Il Woo Choi, Tae Moon Jeong, Seong Ku Lee, Young-Chul Noh, Do-Kyeong Ko Jongmin Lee</i>	
ZnO as fast EUV scintillator for the next generation lithography	1312
<i>Momoko Tanakaa, Masaharu Nishikinoa, Keisuke Nagashimaa, Toyoaki Kimuraa Yusuke Furukawab, Hideyoshi Murakamib, Nobuhiko Sarukurab, Hiroshi Yamatania, Akira Yoshikawac, Tsuguo Fukuda</i>	
Angle-dependent high-harmonic generation from field-free aligned molecules	1314
<i>K.Yoshii, G.Miyaji, K.Miyazaki, A.Abdurrouf, F.H.M.Faisal</i>	
Femtosecond Laser Machining on Vertically Aligned, Multi-walled Carbon Nanotube Films.....	1316
<i>I. H. Baek, N. T. Hong, J. H. Yim, Y. H. Ahn, Soonil Lee, Ken Ha Koh, F. Rotermund</i>	
Characterization of a silver-mirror-based eight-pass Ti:sapphire preamplifier	1318
<i>Yong Woo Lee, Yong-Ho Cha, Sung Mo Nam, Jae Min Han, Yong Joo Rhee, Hyung Ki Cha, Young Uk Jeong</i>	
Title of Paper (Times New Roman, Bold, 18 Point Type, Centered, Capitalized: Case ... Proper Names).....	1320
<i>Kitae Lee, Seong Hee Park, Yong-Ho Cha, Yong Woo Lee, Kwon-hae Yea, Ji Young Lee, Young Uk Jeong</i>	
Generation of 1.2 X Diffraction-Limited Focal Spot from the 100 TW Ti:sapphire Laser System by use of an adaptive optics system.....	1322
<i>Tae Moon Jeong, Il Woo Choi, Nasr Hafz, Do-Kyeong Ko, Jongmin Lee</i>	
Broadband spectral phase control with a tapered deformable mirror in a 4-f pulse shaper	1324
<i>Yasuyuki Ozeki, Gen Omura, Kazuyoshi Itoh</i>	
Observation of a Narrow Spectral Bandwidth in Proton Beam with High Energy Conversion Efficiency Driven by an Ultrashort High-Intensity Ti:Sapphire Laser	1326
<i>Woo Choi, Tae Jun Yu, Jae Hee Sung, Hyung Taek Kim, Tae Moon Jeong, Kyung-Han Hong, Young-Chul Noh, Do-Kyeong Ko, Jongmin Lee, Akito Sagisaka, Akifumi Yogo, Satoshi Orimo, Koichi Ogura, Zhong Li, Alexer Pirozhkov, Hiroyuki Daido, Sergei V. Bulanov, Yuji Oishi, Koshichi Nemoto, Shu Nakamura, Akira Noda, Yoshihisa Iwashita, Toshiyuki Shirai</i>	
Energy Enhancement of the Self-Modulated Laser Wakefield Acceleration using the Plasma Density Gradient.....	1328
<i>Seung Hoon Yoo, Min Sup Hur, Hyojae Jang, Jae Hoon Kim, Snag June Hahn Hyyong Suk</i>	

Table of Contents

Net Positive Normal Force on a Metal Surface from a Grazing Incident p-Polarized Laser Pulse.....	1330
<i>Guan Sik Cho, Eun Mi Ko, Myung Hoon Kang, Jiwon Lee, Cristina G. Serbanescu, Ying Y. Tsui</i>	
Neutron Generation Induced by Laser Fusion by Using a 10TW Femtosecond Ti: Sapphire Laser.....	1332
<i>Sungmo Nam, Jaemin Han, Yongjoo Rhee, Yongwoo Lee, Yong-Ho Cha, Hyung Ki Cha</i>	
Femtosecond laser pulse switching for rapid patterning.....	1334
<i>Ik-Bu Sohn, Young-Chul Noh, Sung-Chul Choi, Do-Kyeong Ko, Jongmin Lee</i>	
Three-dimensional structure formed by holographic two-photon microfabrication of photoresist.....	1336
<i>Hidetomo Takahashi Yoshio Hayasaki</i>	
Multiple filamentation and supercontinuum emission from tightly focused femtosecond laser pulses in air	1338
<i>P. Prem Kiran, S. Bagchi, M. Krishnamurthy, G. Ravindra Kumar</i>	
Fluctuations in a two-way interferometer	1340
<i>Jie-Hui Huang Shi-Yao Zhu</i>	
Polarization-entangled photon source based on the fiber loop configuration in the telecom wavelength band	1342
<i>Satoru Odate, Akio Yoshizawa, Hidemi Tsuchida,</i>	
Effect of Spontaneous Decay on the Rabi Population Oscillation of a Two-Level Atom Coupled to a Monochromatic Field	1344
<i>Sun Kyung Lee Hai-Woong Lee</i>	
Experimental Setup for Direct Measurement of a Single Atom Optical Absorption Cross-section.....	1346
<i>Tey Meng Khoon, ZiLong Chen, Brenda Chng, Syed Abdullah Aljunid, Gleb Maslennikov Christian Kurtsiefer</i>	
simple plug&play quantum key distribution scheme with extremely long-term stability.....	1348
<i>Hai-Qiang Ma, Jian-Ling Zhao, Ling-An Wu</i>	
A Polarization-independent Fast Light Switch	1350
<i>Ng Tien Tjuen, Darwin Gosal, Antia Lamas-Linares, Christian Kurtsiefer</i>	
Four-wave parametric oscillation in Na vapor.....	1352
<i>N. Hayashi, K. Harada, M. Ogata, K. Mori, H. Yoshida, M. Mitsunaga</i>	
Development of a Continuous-wave 3-W 756-nm Injection-locked Ti:sapphire Laser	1354
<i>Yong-Ho Cha, Kwang-Hoon Ko, Gwon Lim, Hyun-Min Park, Taek-Soo Kim, Do-Young Jeong</i>	
Intensity Dependence of Isotope-Selective-Optical-Pumping in the Thallium Vapor	1356
<i>Kwang-Hoon Ko, Do-Young Jeong, Hyunmin Park, Yong-Ho Cha, Jaemin Han, Sipyoo Rho</i>	
Dynamics of optical nonlinearities in CdSe/ZnS nanocrystals.....	1358
<i>J. H. Kyhm, K. Kyhm, S. M. Kim, H. S. Yang Y. Masumoto</i>	
Characterization of Magnetic-Hexapole-Compensated Mirror Magneto-Optical Trap.....	1360
<i>M. Hyodo, K. Nakayama, M. Watanabe, R. Ohmukai</i>	
Electromagnetically Induced Transparency and Four Wave Mixing in Coherently Coupled .. System	1362
<i>Min Kyeong Kim, Lim Lee, Xumei Su, J. B. Kim</i>	
Photochromic Reaction Control by Laser-induced Multiphoton Absorption Process in Fulgide derivatives.....	1364
<i>Yukihide Ishibashi, Hiroshi Miyasaka, Seiya Kobatake, Masahiro Irie, Yasushi Yokoyama</i>	
An Economic and Robust Method to Amplify Optical Frequency Comb	1366
<i>Lin Yi, Jie Yuan, Xianghui Qi, Wenlan Chen, Zhong Wang, Xuzong Chen</i>	
Large-Bandwidth, Low-Noise Phase-Lock of External Cavity Diode Lasers for Atom Interferometers	1368
<i>Jaewan Kim, J. Le Gouet, F. Pereira dos Santos, A. Clairon, A. Lragin</i>	
Performance characteristics of a compact cylindrical multi-pass cell for laser absorption based trace gas sensor	1370
<i>Yoshihiro Kato, Junichi Sato, Takahiro Nakamura, Masamori Endo</i>	

Table of Contents

Sub-Doppler Traps in an Asymmetric Magneto-Optical Trap with Unequal Laser Detunings.....	1372
<i>Heung-Ryoul Noh, Myoung-Sun Heo, Wonho Jhe</i>	
Theoretical Study of Spontaneous Symmetry Breaking in Parametrically Driven Magneto-Optical Trap.....	1374
<i>Yonghee Kim, Myoung-Sun Heo, Heung-Ryul Noh, Mark Dykman, Wonho Jhe</i>	
Spectroscopy of Ultracold 39K85Rb Triplet Rydberg Molecules through the a3S+ State formed by Photoassociation.....	1376
<i>J. T. Kim, D. Wang, E. E. Eyler, P. L. Gould, W. C. Stwalley</i>	
Temperature Dependence of the Coherent Radial Breathing Mode Oscillations in Single Walled Carbon Nanotubes	1378
<i>Ji-Hee Kim, Kang-Jeon Han, Dong-Wook Chang, Nam-Je Kim, Ki-Ju Yee, Yong-sik Lim, Erik H. Haroz, J. Kono</i>	
Carrier dynamics in ZnO nanorods revealed by pump-probe and the time-resolved photoluminescence	1380
<i>Dong-wook Chang, Ji-hee Kim, Kang-jeon Han, K.J.Yee, Byoung-Hwa Kwon, Gyu-chul Yi</i>	
Ablation study of Cr film by ultrashort double pulses	1382
<i>Zehua Han, Changhe Zhou, Enwen Dai, Jin Xie</i>	
Control of rotational wave packets in field-free molecular alignment by chirped laser pulses	1384
<i>Gae Hwang Lee, I Jong Kim, Seung Beom Park, Yong Soo Lee, Chang Hee Nam</i>	
Enhancement of Coherent Vibration by Degenerate Four-Wave-Mixing Technique in Low Temperature 1-Propanol Glass.....	1386
<i>Yutaka Nagasawa, Shoichi Ito, Hiroshi Miyasaka</i>	
Coherent excitation energy transfer of meso-meso linked porphyrin array	1388
<i>Myeongwon Lee, Heeyoung Kim, Dongho Kim, Eunji Sim</i>	
Pretilt angle controllability on the ion beam treated surface by using vertical aligning functional layer and its application	1390
<i>Joo-Hong Seo, Hong-Gik Jang, Sung Ryong Lee, Tae-Hoon Yoon, Jae Chang Kim</i>	
Multilayer white organic light emitting diode with optimum emitting layer sequence	1392
<i>Heume-Il Baek, Hyunduck Cho, Changhee Lee</i>	
A Novel Optical Design of the in-plane switching LC cell for wide viewing angle.....	1394
<i>Kyung-Mi Kim, Jin-Seok Yang, Joun-Ho Lee, Hyun-chul Choi, Gi-Dong Lee</i>	
Twist to Splay Transition by Horizontal Electric Field in Bistable Chiral Splay Nematic Device.....	1396
<i>Chul Gyu Jhun, Yi-Jun Kim, Kwan-Sik Min, Jae Chang Kim, Soon-Bum Kwon</i>	
A Multi-Section Complex-Coupled DFB Laser with Terahertz Self-Pulsation Frequency and High Modulation Index.....	1398
<i>Tae-Young Kim, Boo-Gyoun Kim, Sang-Taek Kim</i>	
Terahertz Time-domain Spectroscopy of Water Vapor Based on Asynchronous Optical Sampling.....	1400
<i>Y. Kabetani, R. Nakamura, S. Yokoyama, T. Yasui, T. Araki</i>	
Terahertz transparency at Fabry-Perot resonances of periodic slit arrays in a metal plate.....	1402
<i>J. W. Lee, M. A. Seo, S. C. Jeoung, Q. H. Park, D. S. Kim</i>	
Near-Field Imaging of Surface Waves for Periodic Hole Arrays: Comparison between Metal and Absorber	1404
<i>M. A. Seo, J. W. Lee, A. J. L. Adam, P. C. M. Planken, S. C. Jeoung, D. S. Kim</i>	
Terahertz ATR Spectroscopy of Liquids Using THz-Wave Parametric Sources	1406
<i>Jun-ichi Shikata, Hiroyuki Ha, Akira Nawahara, Hiroaki Minamide, Tomofumi Ikari, Yoichi Ishikawa, Hiromasa Ito,</i>	
1.5μm Band Dual-Wavelength Pulse Light Source for THz-Wave Generation	1408
<i>Cheikh Ndiaye, Takashi Sugiyama, Shigehiro Nagano, Koji Suizu, Hiromasa Ito</i>	

Table of Contents

High-resolution Spectroscopy using a Ring-Cavity THz-Wave Parametric Oscillator and a Fabry-Perot Interferometer.....	1410
<i>Seigo Ohno, Ruixiang Guo, Hiroaki Minamide, Hiromasa Ito</i>	
Frequency-agile 1-20 THz-wave generation using DAST crystal.....	1412
<i>T. Yamashita, A. Nawahara, K. Miyamoto, H. Ito</i>	
Design of Photonic Crystal-Based THz Devices: Power Splitter and Demultiplexer.....	1414
<i>Dae-Seo Park, Jae-Hyun Kim, Beom-Hoan O, Se-Geun Park, El-Hang Lee, Seung Gol Lee</i>	
Comparison of Fiber-Based Frequency Comb and Ti:Sapphire-Based Frequency Comb.....	1416
<i>Won-Kyu Lee, Dae-Su Yee, Ho Suhng Suh, Chang Yong Park, Dai-Hyuk Yu, Sang Eon Park, Eok Bong Kim</i>	
Spectrum Analysis for the Detection of Multiple Cracks Using a Laser Ultrasonic Surface Wave	1418
<i>Seung-Kyu Park, Woon-ill Kim, Sung-Hoon Baik, Hyun-Kyu Jung, Hyung-Ki Cha, Yong-Moo Cheong</i>	
Two-Wavelength Snap-Shot Interferometer for Disturbance-Free Step-Height Measurement.....	1420
<i>T. Suzuki, H. Takahashi, K. Yokoyama, O. Sasaki</i>	
Erbium Doped Superfluorescent Fiber Source with Mean Wavelength Stability on Pump Wavelength.....	1422
<i>Youngsoon Heo, Shinyoung Yoon, Hyun Seo Kang</i>	
Laser Doppler Vibrometer for detection of sound wave	1424
<i>Yan He, Huaguo Zang, Wenbing Xia, Xuemei Cui, Weibiao Chen, Li Ma</i>	
Monitoring of temporal and spatial dynamics of aerosols and clouds by using a portable automated lidar	1426
<i>T. Shiina, T. Honda, N. Takeuchi, H. Kuze, G. Bagtasa, A. Sone, H. Kan, S. Naito</i>	
Near-field diffraction behavior of deep rectangular grating with period equal to the incident wavelength	1428
<i>Jianjun Zheng, Changhe Zhou</i>	
Localized Surface Plasmon Microscope With an Illumination System Using a Zeroth-order Bessel Beam	1430
<i>Kouyou Watanabe Hiroshi Kano</i>	
Surface Enhanced Raman Scattering from Single CdS Nanowires and Nanosheets.....	1432
<i>Kyoung-Yeon Lee Heesuk Rho</i>	
Nanomovement of Azo-Polymers Induced by Tip Enhanced Near-Field	1434
Diffraction into Propagating and Evanescent Modes from a Single Slit: the Slit-width Dependence.....	1436
<i>H. W. Kihm, K. G. Lee, D. S. Kim</i>	
Emission of dual wavelengths in a quantum cascade laser	1438
<i>Gyungock Kim, Ki Suk Chang, In Gyoo Kim, Ki Joong Lee</i>	
Formation of InGaN Self-assembled Quantum Dots on GaN by Metal-organic Chemical Vapor Deposition with NH₃ Periodic Interruption Growth	1440
<i>Seung-Kyu Choi, Jae-Min Jang, Sung-Hak Yi, Jung-A Kim, Woo-Gwang Jung</i>	