

PHOTONICS

Research

Volume 7
Number 11
November 2019

Generation of optical Fock and W states with single-atom-based bright quantum scissors

Ziv Aqua, M. S. Kim, and Barak Dayan

A45

Experimental test of error-disturbance uncertainty relation with continuous variables

Yang Liu, Haijun Kang, Dongmei Han, Xiaolong Su, and Kunchi Peng

A56

Scanning electron microscope as a flexible tool for investigating the properties of UV-emitting nitride semiconductor thin films

C. Trager-Cowan, A. Alasmari, W. Avis, J. Bruckbauer, P. R. Edwards, B. Hourahine, S. Kraeusel, G. Kusch, R. Johnston, G. Naresh-Kumar, R. W. Martin, M. Nouf-Allehiani, E. Pascal, L. Spasevski, D. Thomson, S. Vespucci, P. J. Parbrook, M. D. Smith, J. Enslin, F. Mehnke, M. Kneissl, C. Kuhn, T. Wernicke, S. Hagedorn, A. Knauer, V. Kueller, S. Walde, M. Weyers, P.-M. Coulon, P. A. Shields, Y. Zhang, L. Jiu, Y. Gong, R. M. Smith, T. Wang, and A. Winkelmann

B73

Direct generation of an ultrafast vortex beam in a CVD-graphene-based passively mode-locked Pr:LiYF₄ visible laser

Nan Li, Junjie Huang, Bin Xu, Yaqi Cai, Jie Lu, Linjie Zhan, Zhengqian Luo, Huiying Xu, Zhiping Cai, and Weiwei Cai

1209

Graded index fiber as an all-fiber saturable absorber for large energy conventional soliton and dissipative soliton generation

Zhaokun Wang, Jikai Chen, Tianyu Zhu, D. N. Wang, and Feng Gao

1214

(Contents continued)

Apodized silicon photonic grating couplers for mode-order conversion: publisher's note	<i>Iosif Demirtzioglou, Cosimo Lacava, Abdul Shakoor, Ali Khokhar, Yongmin Jung, David J. Thomson, and Periklis Petropoulos</i>	1221
Dynamic and nonlinear properties of epitaxial quantum dot lasers on silicon for isolator-free integration	<i>Jianan Duan, Heming Huang, Bozhang Dong, Justin C. Norman, Zeyu Zhang, John E. Bowers, and Frédéric Grillot</i>	1222
Engineering of strong mechanical squeezing via the joint effect between Duffing nonlinearity and parametric pump driving	<i>Cheng-Hua Bai, Dong-Yang Wang, Shou Zhang, Shutian Liu, and Hong-Fu Wang</i>	1229
Bosonic discrete supersymmetry for quasi-two-dimensional optical arrays	<i>Q. Zhong, S. Nelson, M. Khajavikhan, D. N. Christodoulides, and R. El-Ganainy</i>	1240
14 μm quantum cascade lasers based on diagonal transition and nonresonant extraction	<i>Shouzhu Niu, Junqi Liu, Fengmin Cheng, Huan Wang, Jinchuan Zhang, Ning Zhuo, Shenqiang Zhai, Lijun Wang, Shuman Liu, Fengqi Liu, Zhanguo Wang, Xiaohua Wang, and Zhipeng Wei</i>	1244
Overcoming the barrier of nanoparticle production by femtosecond laser ablation in liquids using simultaneous spatial and temporal focusing	<i>Carlos Doñate-Buendía, Mercedes Fernández-Alonso, Jesús Lancis, and Gladys Minguez-Vega</i>	1249
Light rays and waves on geodesic lenses	<i>Lin Xu, Xiangyang Wang, Tomáš Tyc, Chong Sheng, Shining Zhu, Hui Liu, and Huanyang Chen</i>	1266
Optimized weak measurement of orbital angular momentum-induced beam shifts in optical reflection	<i>Wenjin Long, Jintao Pan, Xinyi Guo, Xiaohe Liu, Haolin Lin, Huadan Zheng, Jianhui Yu, Heyuan Guan, Huihui Lu, Yongchun Zhong, Shenhe Fu, Li Zhang, Wenguo Zhu, and Zhe Chen</i>	1273

(Contents continued)

Ultra-flat dispersion in an integrated waveguide with five and six zero-dispersion wavelengths for mid-infrared photonics [Editors' Pick]	<i>Yuhao Guo, Zeinab Jafari, Lijuan Xu, Changjing Bao, Peicheng Liao, Guifang Li, Anuradha M. Agarwal, Lionel C. Kimerling, Jurgen Michel, Alan E. Willner, and Lin Zhang</i>	1279
Pattern formation in 2- μ m Tm Mamyshev oscillators associated with the dissipative Faraday instability	<i>Pan Wang, Shunyu Yao, Philippe Grelu, Xiaosheng Xiao, and Changxi Yang</i>	1287
Interference-enhanced optical magnetism in surface high-index resonators: a pathway toward high-performance ultracompact linear and nonlinear meta-optics [On the Cover]	<i>Lei Kang, Huaguang Bao, and Douglas H. Werner</i>	1296
High-speed optical secure communication with an external noise source and an internal time-delayed feedback loop	<i>Yudi Fu, Mengfan Cheng, Xingxing Jiang, Quan Yu, Linbojie Huang, Lei Deng, and Deming Liu</i>	1306
Integrated flat-top reflection filters operating near bound states in the continuum	<i>Leonid L. Doskolovich, Evgeni A. Bezus, and Dmitry A. Bykov</i>	1314
Physical picture of the optical memory effect [Editors' Pick]	<i>Honglin Liu, Zhentao Liu, Meijun Chen, Shensheng Han, and Lihong V. Wang</i>	1323
Polarization evolution dynamics of dissipative soliton fiber lasers	<i>Lei Gao, Yulong Cao, Stefan Wabnitz, Hongqing Ran, Lingdi Kong, Yujia Li, Wei Huang, Ligang Huang, Danqi Feng, and Tao Zhu</i>	1331
Dual waveband generator of perfect vector beams	<i>Hui Li, Haigang Liu, and Xianfeng Chen</i>	1340
Coherence of bulk-generated supercontinuum	<i>Atri Halder, Vytautas Jukna, Matias Koivurova, Audrius Dubietis, and Jari Turunen</i>	1345
Design, fabrication, and characterization of a highly nonlinear few-mode fiber	<i>Jitao Gao, Elham Nazemosadat, Chen Yang, Songnian Fu, Ming Tang, Weijun Tong, Joel Carpenter, Jochen Schröder, Magnus Karlsson, and Peter A. Andrekson</i>	1354

(Contents continued)

Mode- and wavelength-multiplexed
transmission with crosstalk mitigation using a
single amplified spontaneous emission source

*Yetian Huang, Haoshuo Chen, 1363
Hanzi Huang, Zhengxuan Li,
Nicolas K. Fontaine,
Roland Ryf,
Juan Carlos Alvarado,
Rodrigo Amezcua-Correa,
John van Weerdenburg,
Chigo Okonkwo,
A. M. J. Koonen,
Yingxiong Song, and Min Wang*

The color images are shown online.