CONFERENCE 10109

WEDNESDAY 1 FEBRUARY

SESSION 8

ROOM: 306 (SOUTH ESPLANADE) WED 8:30 AM TO 9:55 AM

PICs for Optical Interconnects

Session Chair: **Ray T. Chen**, The Univ. of Texas at Austin (USA)

8:30 am: **Thermo-optic tunable grating structure for both coupler and radiator applications in silicon**, Jong-hun Kim, Sanggu Yeo, Seong-hwan Kim, Muhyun Jin, Harin Lee, Geumbong Kang, Jeongyeon Kim, Daeseong Lee, Hyo-hoon Park, KAIST (Korea, Republic of) [10109-34]

8:50 am: **Electro-optic polymer ring-resonator-based reconfigurable logic devices for optical interconnects utilizing imprinting and inkjet printing**, Zeyu Pan, The Univ. of Texas at Austin (USA); Cheng Zhang, Univ. of Michigan (USA); Harish Subbaraman, Omega Optics, Inc. (USA); Chi-Jui Chung, The Univ. of Texas at Austin (USA); Qiaochu Li, Univ. of Michigan (USA); Xiaochuan Xu, Omega Optics, Inc. (USA); Xingyu Zhang, The Univ. of Texas at Austin (USA); L. Jay Guo, Univ. of Michigan (USA); Ray T. Chen, The Univ. of Texas at Austin (USA) [10109-35]

9:10 am: **Rich third-order nonlinearity of graphene oxide films towards all-optical communications** (*Invited Paper*), Han Lin, Xiaorui Zheng, Baohua Jia, Swinburne Univ. of Technology (Australia) [10109-36]

9:35 am: **Definitive difference between the even and odd modes of photonic crystal dual nanobeam cavities**, Siamak Abbaslou, Robert Gatdula, Minning Zhu, Wei Jiang, Rutgers, The State Univ. of New Jersey (USA) [10109-37]

Coffee Break Wed 9:55 am to 10:30 am

SESSION 9

ROOM: 306 (SOUTH ESPLANADE) WED 10:30 AM TO 12:25 PM

Hybrid Device Integration Approaches for Silicon Photonics Chips

Session Chair: **Henning Schröder**, Fraunhofer-Institut für Zuverlässigkeit und Mikrointegration (Germany)

10:30 am: **Advanced R&D addressing future trends in integrated silicon photonics** (*Invited Paper*), Charles Baudot, STMicroelectronics (France) [10109-38]

10:55 am: **Thick-SOI Echelle grating for any-to-any wavelength-routing interconnection in multi-socket computing environments**, George Dabos, Aristotle Univ. of Thessaloniki (Greece) and Ctr. for Interdisciplinary Research and Innovation, Aristotle Univ. of Thessaloniki (Greece); Stelios Pitris, Charoula Mitsolidou, Theonitsa Alexoudi, Dimitrios Fitsios, Aristotle Univ. of Thessaloniki (Greece); Matteo Cherchi, Mikko Harjanne, Timo Aalto, VTT Technical Research Ctr. of Finland Ltd. (Finland); George T. Kanellos, Nikos Pleros, Aristotle Univ. of Thessaloniki (Greece) [10109-39]

11:15 am: **Hybrid integration of laser source on silicon photonic integrated circuit for low-cost interferometry medical device**, Matthieu Duperron, Lee B. Carroll, Tyndall National Institute (Ireland); Yanlu Li, Roel G. Baets, Univ. Gent (Belgium); Ralf Schöler, SIOS Messtechnik GmbH (Germany); Peter A. O'Brien, Tyndall National Institute (Ireland) [10109-40]

11:35 am: **III-V/Si hybrid laser arrays using back-end-of-the-line (BEOL) integration** (*Invited Paper*), Xuezhe Zheng, Oracle Corp. (USA) [10109-41]

12:00 pm: **Hybrid photonic crystal lasers** (*Invited Paper*), Liam O'Faolain, Univ. of St. Andrews (United Kingdom) [10109-42]

POSTERS-WEDNESDAY

ROOM: MOSCONE WEST LEVELS 2 AND 3 . WED 6:00 PM TO 8:00 PM

Conference attendees are invited to attend the OPTO poster session on Wednesday evening. Come view the posters, enjoy light refreshments, ask questions, and network with colleagues in your field. Authors of poster papers will be present to answer questions concerning their papers. Attendees are required to wear their conference registration badges to the poster sessions.

Poster authors, view poster presentation guidelines and set-up instructions at <http://spie.org/PWPosterGuidelines>.

Cost-effective 25-Gbps active optical cable incorporating a plastic micro-optic module, Yong-Geon Lee, Sang-Shin Lee, Kwangwoon Univ. (Korea, Republic of); Yung-Sung Son, Optomind Inc. (USA) [10109-43]

Modelling of all-optical 3x8 line decoder using optical Kerr effect in plasmonic metal-insulator-metal waveguides, Lokendra Singh, Amna Bedi, Santosh Kumar, DIT Univ. (India) [10109-44]

Key parameters for obtaining graded-index perfect circular cores in polymer waveguides using the Mosquito method, Yuki Salto, Koji Fukagata, Takaaki Ishigure, Keio Univ. (Japan) [10109-45]

Indium titanium oxide-based plasmonic Mach-Zehnder modulator, Abdalrahman Abdelhamid, Mohamed A. Swillam, The American Univ. in Cairo (Egypt) [10109-46]

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