



Nano Scale Disruptive Silicon-Plasmonic Platform for Chip-to-Chip Interconnection

Organization of workshop on silicon photonics for chip-to-chip communication

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List of Partners concerned

Partner number	Partner name	Partner short name	Country	Date enter project	Date exit project
1	Karlsruher Institut für Technologie	KIT	Germany	M1	M36
2	INTERUNIVERSITAIR MICRO-ELECTRONICA CENTRUM VZW	IMCV	Belgium	M1	M36
3	TECHNISCHE UNIVERSITEIT EINDHOVEN	TU/e	Netherlands	M1	M36
4	RESEARCH AND EDUCATION LABORATORY IN INFORMATION TECHNOLOGIES	AIT	Greece	M1	M36
5	UNIVERSITAT DE VALENCIA	UVEG	Spain	M1	M36
6	STMICROELECTRONICS SRL	ST	Italy	M1	M36
7	UNIVERSITEIT GENT	UGent	Belgium	M1	M36

¹
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Deliverable Responsible

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Executive Summary

The NAVOLCHI consortium has contributed to the organization of two special sessions related to silicon photonics and optical interconnects at international conferences. This report describes the scope and agenda of such workshops.

Change Records

Version	Date	Changes	Author
1 (submission)	08-12-14		V. Calzadilla, M. Smit

Workshops

1. “Special Session on Plasmonics Based Components”, organized at ICTON 2012 conference (2-5 July 2012, Warwick, UK). Link: <http://www.nit.eu/icton2012-contents>

Agenda

Th.A5.1. Chip-to-chip plasmonic interconnects and the activities of EU project NAVOLCHI (Invited)

A. Melikyan, M. Sommer, A. Muslija, M. Kohl, S. Muehlbrandt, A. Mishra, V. Calzadilla, Y. Justo, J.P. Martínez-Pastor, I. Tomkos, A. Scandurra, D. Van Thourhout, Z. Hens, M. Smit, W. Freude, C. Koos, J. Leuthold

Th.A5.2. Surface plasmon-polariton amplifiers (Invited)

I. Suárez, P. Rodríguez-Cantó, R. Abargues, J. Martínez-Pastor, E.P. Fitrakis, I. Tomkos

Th.A5.3. Low energy routing platforms for optical interconnects using active plasmonics integrated with silicon photonics (Invited)

K. Vysokinos, S. Papaioannou, N. Pleros, D. Kalavrouziotis, G. Giannoulis, D. Apostolopoulos, H. Avramopoulos, J-C. Weeber, K. Hassan, L. Markey, A. Dereux, A. Kumar, S.I. Bozhevolnyi, M. Baus

Th.A5.4. Broadband and picosecond intraband absorption in lead based colloidal quantum dots (Invited)

B. De Geyter, P. Geiregat, D. Van Thourhout, Yunan Gao, S.T. Cate, A.J. Houtepen, J.M. Schins, L.D.A. Siebbeles, Z. Hens

Th.A5.5. Silicon-organic hybrid fabrication platform for integrated circuits (Invited)

D. Korn, L. Alloati, M. Lauermann, J. Pfeifle, R. Palmer, P.C. Schindler, W. Freude, C. Koos, J. Leuthold, Hui Yu, W. Bogaerts, K. Komorowska, R. Baets, J. Van Campenhout, P. Verheyen, J. Wouters, M. Moelants, P. Absil, A. Secchi, M. Dispenza, S. Wehrli, M. Bossard, P. Zakyntinos, I. Tomkos

Th.A5.6. Exploiting photosensitive As₂S₃ chalcogenide glass in photonic integrated circuits

S. Grillanda, A. Canciamilla, F. Morichetti, Juejun Hu, V. Raghunathan, V. Singh, A. Agarwal, L.C. Kimerling, A. Melloni

Th.A5.7. Towards plasmonic lasers for optical interconnects

V. Dolores-Calzadilla, A. Fiore, M.K. Smit

2. “CMOS Fabrication-Based Photonic Technologies for Communications”, organized at ICTON 2013 conference (23-27 June 2013, Cartagena, Spain). Link: <http://www.nit.eu/icton2010-contents>

Agenda

We.D6.1. Waveguide-coupled nanolasers in III-V membranes on silicon (Invited)
V. Dolores-Calzadilla, D. Heiss, A. Fiore, M. Smit

We.D6.2. Optical properties of SOI waveguides functionalized with close-packed quantum dot films (Invited)
Z. Hens, A. Omari, P. Geiregat, D. Van Thourhout

We.D6.3. Light coupling from active polymer layers to hybrid dielectric-plasmonic waveguides (Invited)
I. Suárez, E.P. Fitrakis, H. Gordillo, P. Rodriguez-Cantó, R. Abargues, I. Tomkos, J. Martinez-Pastor

We.D6.4. Low energy routing platforms for optical interconnects using active plasmonics integrated with silicon photonics (Invited)
K. Vysokinos, S. Papaioannou, D. Kalavrouziotis, F. Zacharatos, L. Markey, J-C. Weeber, A. Dereux, A. Kumar, S.I. Bozhevolnyi, M. Waldow, G. Giannoulis, D. Apostolopoulos, T. Tekin, H. Avramopoulos, N. Pleros