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O. Martínez-Matos, José A. Rodrigo, M.P. Hernández-Garay, J.G. Izquierdo, R. Weigand, M.L. Calvo, **P. Cheben**, P. Vaveliuk, and L. Bañares, Generation of femtosecond paraxial beams with arbitrary spatial distribution, *Optics Letters* 35, pp. 652-654 (2010).

C. Alonso-Ramos, A. Ortega-Moñux, I. Molina-Fernández, **P. Cheben**, L.Zavargo-Peche, and R. Halir, "Efficient fiber-to-chip grating coupler for micrometric SOI rib waveguides," *Optics Express*, vol. 18, pp. 15189-15200 (2010).

R. Halir, **P. Cheben**, J.H. Schmid, R. Ma, D. Bedard, S. Janz, D.-X. Xu, A. Densmore, J. Lapointe, I. Molina-Fernández, "Continuously apodized fiber-to-chip surface grating coupler with refractive index engineered subwavelength structure", *Optics Letters*, vol. 35, no. 19, October 1, 2010.

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Recent refereed conferences (2010 - present)

J. Pond, A. Liu, J. Niegemann, X. Wang, and **P. Cheben**, Efficient optimization of subwavelength gratings for photonic integrated circuits, META'16, 7th International Conference on Metamaterials, Photonic Crystals and Plasmonics, Malaga, Spain, 25-28 July 2016. Invited.

P. Cheben, J. Schmid, D.-X. Xu, S. Janz, et al., Subwavelength engineered structures for integrated photonics, Progress In Electromagnetics Research Symposium (PIERS), 8-11 August, 2016, Shanghai, China. Keynote lecture.

P. Cheben, J.H. Schmid, D.-X. Xu, S. Janz, J. Lapointe, M. Rahim, S. Wang, M. Vachon, R. Halir, A. Ortega-Moñux, G. Wangüemert-Pérez, I. Molina-Fernández, J. Pond, D. Benedikovic, C. Alonso-Ramos, L. Vivien, J. Soler Penadés, M. Nedeljkovic, G.Z. Mashanovich, A.V. Velasco, M.L. Calvo, Y. Painchaud, M.-J. Picard, M. Poulin, M. Dado, J. Müllerová, W.N. Ye, M. Pápeš and V. Vašinek, Advances in silicon photonics: Exploiting subwavelength engineered metamaterials, Photonics North 2016 Conference, May 24-26, 2016, Quebec City, Canada. Invited.

P. Cheben, D. Benedikovič, C. Alonso-Ramos, J.H. Schmid, R. Halir, D.-X. Xu, S. Janz, S. Wang, M. Vachon, J. Lapointe, B. Lamontagne, M. Rahim, M. Dado, J. Müllerová, G. Wangüemert-Pérez, A. Ortega-Moñux, I. Molina-Fernández, M.J. Picard, M. Poulin, M. Guy, M. Pápeš and V. Vašinek, Subwavelength engineering for silicon photonics, Asia Communications and Photonics Conference (ACP), November 19-23, 2015, Kong Kong. Invited.

P. Cheben, D. Benedikovič, C. Alonso-Ramos, J.H. Schmid, M. Pápeš, D.-X. Xu, S. Janz, S. Wang, M. Vachon, G. Wangüemert-Pérez, R. Halir, A. Ortega-Moñux, I. Molina-Fernández, J.-M. Fédéli, J. Soler Penadés, M. Nedeljkovic, G. Z. Mashanovich, W. Ye, M.L. Calvo, M. Dado, J. Müllerová, and V. Vašinek, Subwavelength silicon photonics, Progress in Photonics workshop, October 16, 2015, Florence, Italy. Invited.

P. Cheben, D. Benedikovič, C. Alonso-Ramos, J.H. Schmid, R. Halir, D.-X. Xu, S. Janz, S. Wang, M. Vachon, J. Lapointe, B. Lamontagne, M. Rahim, M. Dado, J. Müllerová, G. Wangüemert-Pérez, A. Ortega-Moñux, I. Molina-Fernández, M.J. Picard, M. Poulin, M. Guy, M. Pápeš and V. Vašinek, Subwavelength grating engineered nanostructures for integrated optics, Asia Communications and Photonics Conference (ACP), November 19-23, 2015, Kong Kong. Invited.

P. Cheben, J.H. Schmid, D.-X. Xu, S. Janz, D. Benedikovič, C. Alonso-Ramos, M. Rahim, S. Wang, M. Vachon, R. Halir, G. Wangüemert-Pérez, A. Ortega-Moñux, I. Molina-Fernández, M.J. Picard, M. Poulin, M. Pápeš, V. Vašinek, M. Dado, J. Müllerová, Subwavelength engineered optical materials for photonic integration and sensing, The 2016 Material Research Society (MRS) Meeting, March 28-April 1, 2016, Phoenix, Arizona, USA. Invited.

P. Cheben, D. Benedikovič, C. Alonso-Ramos, J.H. Schmid, R. Halir, D.-X. Xu, S. Janz, J. Pond, M. Rahim, S. Wang, M. Vachon, G. Wangüemert-Pérez, A. Ortega-Moñux, I. Molina-Fernández, M.J. Picard, M. Poulin, Y. Painchaud, M. Dado, J. Müllerová, M. Pápeš and V. Vašinek, High-efficiency subwavelength index engineered fibre-chip couplers for photonics integration and sensing, SPIE Photonics West 2016 Conference, Paper 9750-32. February 15-18, 2016, San Francisco, USA. Invited.

H. Podmore, **P. Cheben**, A. Scott, and R. Lee, Principles and design of a planar waveguide Fourier transform spectrometer for remote-sensing applications, Progress In Electromagnetics Research Symposium (PIERS), 8-11 August, 2016, Shanghai, China. Invited.

T. Domínguez Bucio, A. Z. Al-Attili, K. Debnath, S. Saito, G. Mashanovich, A. Sánchez-Postigo, G. Wangüemert-Pérez, A. Ortega-Moñux, R. Halir, **P. Cheben**, and F. Y. Gardes, Silicon nitride for integrated photonic applications, META'16, 7th International Conference on Metamaterials, Photonic Crystals and Plasmonics, Malaga, Spain, 25-28 July 2016. Invited.

Jens H. Schmid, **Pavel Cheben**, Mohamed Rahim, Shurui Wang, Dan-Xia Xu, Martin Vachon, Siegfried Janz, Jean Lapointe, Yves Painchaud, Marie-Josée Picard, Michel Poulin and Martin Guy, Subwavelength gratings for broadband and polarization independent fiber-chip coupling with -0.4 dB efficiency, Optical Fiber Conference (OFC) 2016, Anaheim, California, USA, 20-24 March, 2016. Invited.

I. Molina-Fernandez, P. Reyes-Iglesias, R. Halir, G. Wangüemert-Perez, J. de Oliva-Rubio, R. Godoy-Rubio, **Pavel Cheben**, C. Alonso-Ramos, and A. Ortega-Moñux, Coherent receivers for advanced applications, Optical Fiber Conference (OFC) 2016, Anaheim, California, USA, 20-24 March, 2016. Invited.

Alejandro Ortega-Moñux, Jordi Soler-Penadés, Milos Nedeljkovic, J. Gonzalo Wangüermert-Pérez, Ali Z. Khokhar, Carlos Alonso-Ramos, Robert Halir, Goran Z. Mashanovich, Íñigo Molina-Fernández, **Pavel Cheben**, Subwavelength suspended structures in silicon, SPIE Photonics West 2016 Conference, Paper 9752-38. February 15-18, 2016, San Francisco, USA. Invited.

R. Halir, J. M. Luque-González, S. Wang, A. Sánchez-Postigo, J. G. Wangüemert-Pérez, **P. Cheben**, J. Schmid, D.-X. Xu, S. Janz, J. Lapointe, I. Molina-Fernández, and A. Ortega-Moñux, Designing broadband silicon devices using subwavelength structures. META'16, 7th International Conference on Metamaterials, Photonic Crystals and Plasmonics, Malaga, Spain, 25-28 July 2016. Invited.

W. N. Ye, Y. Xiong, **P. Cheben**, D.-X. Xu, and J. Schmid, Ultracompact polarization splitter and rotators based on silicon-on-insulator, ADEPT Conference, Štrbské Pleso, Slovakia. June 1-4, 2015. Invited.

Hugh Podmore, Chris Sioris, Al Scott, **Pavel Cheben**, Peter Cameron, Regina Lee, Spatial-heterodyne-on-a-chip: Design of an advanced micro-spectrometer for detection of atmospheric methane, 17th Astronautics Conference of Canadian Aeronautics and Space Institute, Ottawa, Canada, May 17-19, 2016.

Hugh Podmore, Al Scott, **Pavel Cheben**, Chris Sioris, Peter Cameron, Regina Lee, The design of a microphotonic spatial heterodyne spectrometer for remote sensing, Photonics North 2016 Conference, May 24-26, 2016, Quebec City, Canada. Invited.

J. D. Sarmiento-Merenguel, A. Ortega-Monux, J-M. Fedeli, J. G. Wangüemert-Perez, C. Alonso-Ramos, E. Duran-Valdeiglesias, **P. Cheben**, I. Molina-Fernandez, and R. Halir, On leakage losses in subwavelength grating devices, META'16, 7th International Conference on Metamaterials, Photonic Crystals and Plasmonics, Malaga, Spain, 25-28 July 2016.

A. V. Velasco, A. Herrero-Bermello, P. Corredera, M. L. Calvo, **P. Cheben**, P. J. Bock, A. Delâge, J. H. Schmid, J. Lapointe, S. Janz, D.-X. Xu, M. Florjańczyk, M. Vachon, M. Nedeljkovic, A. Z. Khokhar, G. Z. Mashanovich, "Waveguide interferometer arrays for on-chip Fourier spectroscopy," Photonics North 2016 Conference, May 24-26, 2016, Quebec City, Canada. Invited.

Alaine Herrero-Bermello, Aitor V. Velasco, Pedro Corredera, **Pavel Cheben**, André Delâge, Jens H. Schmid, Jean Lapointe, Siegfried Janz, Dan-Xia Xu, Martin Vachon, María L. Calvo, Passive thermal compensation in Fourier transform waveguide microspectrometers, Photonics North 2016 Conference, May 24-26, 2016, Quebec City, Canada.

A. V. Velasco, **P. Cheben**, M. L. Calvo, P. J. Bock, A. Delâge, J. H. Schmid, J. Lapointe, S. Janz, D.-X. Xu, M. Florjańczyk, M. Vachon, M. Nedeljkovic, A. Z. Khokhar, G. Z. Mashanovich, A. Herrero-Bermello, and P. Corredera, "Fourier-transform on-chip microspectrometers," PIERS 2016 Conference, Shanghai, China, August 8-11, 2016. Invited.

A. V. Velasco, P. J. Bock, P. Cheben, J. H. Schmid, A. Delâge, J. Lapointe, D.-X. Xu, M. Vachon, S. Janz, M. L. Calvo, A. Herrero-Bermello and P. Corredera, Subwavelength-engineered interferometer arrays for Fourier-transform spectrometry, META Conference, Torremolinos (Spain), July 2016. Invited.

M. L. Calvo, A. V. Velasco, **P. Cheben**, "Spatial Heterodyne Fourier-transform Spectroscopy: from fundamentals to array waveguide interferometers," META'2016, 7th International Conference on Metamaterials, Photonic Crystals and Plasmonics, Torremolinos (Spain), July 2016. Invited.

Aitor V. Velasco, **Pavel Cheben**, María L. Calvo, André Delâge, Jens H. Schmid, Jean Lapointe, Siegfried Janz, Dan-Xia Xu, Martin Vachon, Milos Nedeljkovic, Ali Z. Khokhar, Goran Z. Mashanovich, Alaine Herrero-Bermello and Pedro Corredera, Fourier-transform on-chip microspectrometers, PIERS, Shanghai (China), August 2016. Invited.

Milos Nedeljkovic, J. Soler Penades, A. Z. Khokhar, Zhibo Qu, Wei Cao, Stevan Stanković, Colin J. Mitchell¹, Scott A. Reynolds, Callum Littlejohns, Frederic Gardes, A. V. Velasco, **Pavel Cheben**, Richard Soref, and David Thomson, Group-IV material waveguides, spectrometers and modulators for mid-infrared wavelengths, EMN, Prague (Czech Republic), June 2016.

Alejandro Sánchez-Postigo, José Manuel Luque-González, Robert Halir, J. Gonzalo Wangüemert-Pérez, Goran Z. Mashanovich, **Pavel Cheben**, "Design of ultra-broadband multimode interference devices for the mid-infrared wavelength range (3 – 4 μm)," 9a Reunión Española de Optoelectrónica, OPTOEL'15, Salamanca, Spain, 13-15 July 2015.

Alejandro Sánchez-Postigo Alejandro Sánchez-Postigo, Juan Gonzalo Wangüemert-Pérez, Robert Halir, Alejandro Ortega-Moñux, Carlos A. Alonso Ramos, Íñigo Molina-Fernández, Jordi Soler Penadés, Milos Nedeljkovic, Goran Z. Mashanovich, and **Pavel Cheben**, "A sub-wavelength structured multimode interference coupler for the 3 – 4 μm mid-infrared band," SPIE Optics + Optoelectronics, Prague, Czech Republic, 13-16 April 2015, paper [9516-20].

P. Cheben, J.H. Schmid, D.-X. Xu, S. Janz, J. Lapointe, M. Rahim, S. Wang, M. Vachon, R. Halir, A. Ortega-Moñux, G. Wangüemert-Pérez, I. Molina-Fernández, J. Pond, D. Benedikovic, C. Alonso-Ramos, J. Soler Penadés, M. Nedeljkovic, G.Z. Mashanovich, A.V. Velasco, M.L. Calvo, Y. Painchaud, M.-J. Picard, M. Poulin, M. Dado, J. Müllerová, W.N. Ye, M. Pápeš and V. Vašínek "Subwavelength grating engineered metamaterial waveguide structures for silicon photonic integrated circuits," META'16, 7th International Conference on Metamaterials, Photonic Crystals and Plasmonics, Malaga, Spain, 25-28 July 2016. Invited.

P. Cheben, J.H. Schmid, D.-X. Xu, S. Janz, J. Lapointe, M. Rahim, S. Wang, M. Vachon, R. Halir, A. Ortega-Moñux, G. Wangüemert-Pérez, I. Molina-Fernández, J. Pond, D. Benedikovic, C. Alonso-Ramos, J. Soler Penadés, M. Nedeljkovic, G.Z. Mashanovich, A.V. Velasco, M.L. Calvo, Y. Painchaud, M.-J. Picard, M. Poulin, M. Dado, J. Müllerová, W.N. Ye, M. Pápeš and V. Vašínek, "Subwavelength metamaterial silicon structures for nanophotonic couplers, colourless multimode interference

devices, polarization controllers and mid-infrared waveguides,” ICTON 2016, 18th International Conference on Transparent Optical Networks, Trento, Italy, 10-14 July 2016. Invited.

G. Z. Mashanovich, G. T. Reed, M. Nedeljkovic, J. Soler Penades, C. J. Mitchell, A. Z. Khokhar, C. J. Littlejohns, S. Stankovic, X. Chen, L. Shen, N. Healy, A. C. Peacock, C. Alonso-Ramos, A. Ortega-Monux, G. Wanguemert-Perez, I. Molina-Fernandez, **P. Cheben**, J. J. Ackert, A. P. Knights, F. Y. Gardes, D. J. Thomson, “Silicon and germanium mid-infrared photonics,” Photonics West 2016, San Francisco, California, USA, 13-18 February 2016. Invited.

G. Z. Mashanovich, M. Nedeljkovic, J. Soler Penades, C. J. Mitchell, S. Stankovic, C. Howle, A. Ortega-Monux, G. Wanguemert-Perez, R. Halir, I. Molina-Fernandez, **P. Cheben**, J. J. Ackert, A. P. Knights, G. T. Reed, “Silicon photonics for the mid-infrared,” PHOTONICA'15, Belgrade, Serbia, 24-28 August 2015. Invited.

G. T. Reed, M. Nedeljkovic, J. Soler Penades, C. J. Mitchell, A. Z. Khokhar, C. J. Littlejohns, S. Stankovic, B. Troia, V. M. N. Passaro, L. Shen, N. Healy, A. C. Peacock, A. Ortega-Monux, G. Wanguemert-Perez, I. Molina-Fernandez, **P. Cheben**, J. J. Ackert, A. P. Knights, D. J. Thomson, F. Y. Gardes, and G. Z. Mashanovich, “Group IV mid-IR photonics,” IEEE Summer Topicals Meeting, Nassau, Bahamas, 13-15 July 2015. Invited.

G. Z. Mashanovich, M. Nedeljkovic, J. Soler Penades, C. J. Mitchell, A. Z. Khokhar, C. J. Littlejohns, S. Stankovic, B. Troia, V. M. N. Passaro, L. Shen, N. Healy, A. C. Peacock, A. Ortega-Monux, G. Wanguemert-Perez, R. Halir, I. Molina-Fernandez, D. Benedikovic, G. S. Murugan, J. S. Wilkinson, **P. Cheben**, A. Villafranca, J. J. Ackert, A. P. Knights, D. J. Thomson, F. Y. Gardes, G. T. Reed, “Group IV photonics for the mid-infrared,” IPR 2015, Boston, USA, 27 June – 1 July 2015. Invited.

M. Nedeljkovic, A. V. Velasco, A. Z. Khokhar, **P. Cheben**, and G. Z. Mashanovich, “Silicon-on-insulator spatial heterodyne spectrometer chip for the mid-infrared,” Group IV Photonics 2015, Vancouver, Canada, 26-28 August 2015.

J. Soler Penades, M. Nedeljkovic, A. Z. Khokhar, A. Ortega Monux, G. Wanguemert Perez, R. Halir, P. Cheben and G. Z. Mashanovich, “Subwavelength cladding mid-infrared devices,” Group IV Photonics 2015, Vancouver, Canada, 26-28 August 2015.

Aitor V. Velasco, Juan Galindo-Santos, **Pavel Cheben**, María L. Calvo, Jens Schmid, André Delâge, Dan-Xia Xu, Siegfried Janz, Pedro Corredera, Compensación de derivas térmicas en micro-espectrómetros integrados de transformada de Fourier, OPTOEL, Salamanca (Spain), July 2015.

Aitor V. Velasco, Juan Galindo-Santos, **Pavel Cheben**, María L. Calvo, Jens Schmid, André Delâge, Dan-Xia Xu, Siegfried Janz, Pedro Corredera, Temperature drift compensation in high-resolution Fourier-transform spectrometers, Feria de Otoño SINFOTON, Madrid (Spain), October 2015.

Daniel Benedikovic, Carlos Alonso-Ramos, **Pavel Cheben**, Jens H. Schmid, Shurui Wang, Dan-Xia Xu, Boris Lamontagne, Robert Halir, Alejandro Ortega-Moñux, Laurent Vivien, Jean Lapointe, Siegfried Janz, Juan-Gonzalo Wangüemert-Pérez, Iñigo Molina-Fernández, Jean-Marc Fédéli, and Milan Dado, “High efficiency fiber-chip surface grating couplers,” In Proc. 18th IEEE Photonics North 2016, Québec, Canada, 2016. Invited.

Daniel Benedikovic, Carlos Alonso-Ramos, **Pavel Cheben**, Jens H. Schmid, Shurui Wang, Dan-Xia Xu, Robert Halir, Alejandro Ortega-Moñux, Laurent Vivien, Jean Lapointe, Siegfried Janz, Juan-Gonzalo Wangüemert-Pérez, Iñigo Molina-Fernández, Jean-Marc Fédéli, and Milan Dado, “Highly-efficient subwavelength engineered grating couplers for silicon-on-insulator waveguides,” In Proc. 18th European Conference in Integrated Optics (ECIO 2016) 2016, Warsaw, Poland, 2016.

Daniel Benedikovic, Carlos Alonso-Ramos, **Pavel Cheben**, Jens H. Schmid, Shurui Wang, Dan-Xia Xu, Boris Lamontagne, Robert Halir, Alejandro Ortega-Moñux, Laurent Vivien, Jean Lapointe, Siegfried Janz, Juan-Gonzalo Wangüemert-Pérez, Iñigo Molina-Fernández, Jean-Marc Fédéli, and Milan Dado, "High-efficiency single etch step surface grating couplers engineered by subwavelength structured metamaterials," In Proc.: 7th International Conference on Metamaterials, Photonic Crystals and Plasmonics (META) 2016, Málaga, Spain, 2016. Invited.

Daniel Benedikovic, Carlos Alonso-Ramos, **Pavel Cheben**, Jens H. Schmid, Shurui Wang, Dan-Xia Xu, Robert Halir, Alejandro Ortega-Moñux, Jean-Marc Fédéli, Siegfried Janz, Iñigo Molina-Fernández and Milan Dado, "First experimental demonstration of high-directionality fiber-chip grating coupler with interleaved trenches," In Proc. 12th IEEE International Conference on Group IV Photonics (GFP) 2015, pp. 203 – 204, Vancouver, Canada, August 2015.

C. Alonso-Ramos, J. D. Sarmiento-Merenguel, R. Halir, X. Le Roux, L. Vivien, **P. Cheben**, E. Durán-Valdeiglesias, I. Molina-Fernández, D. Marris-Morini, D.-X. Xu, J. H. Schmid, S. Janz, A. Ortega-Moñux, "Integrated polarization controllers," Progress In Electromagnetics Research Symposium (PIERS), 2016, Shanghai, China. Invited.

C. Alonso-Ramos, D. Benedikovic, **P. Cheben**, D. Pérez-Galacho, J. H. Schmid, S. Wang, D.-X. Xu, B. Lamontagne, J. Lapointe, S. Janz, R. Halir, A. Ortega-Moñux, J.-G. Wangüemert-Pérez, I. Molina-Fernández, J.-M. Fédéli, M. Dado, E. Cassan, D. Marris-Morini, L. Vivien, "Sub-wavelength engineered high directionality fiber-to-chip blazed grating couplers," 7th Conference on Metamaterials, Photonic Crystals and Plasmonics (META), 2016, Málaga, Spain. Invited.

J. D. Sarmiento-Merenguel, C. Alonso-Ramos, R. Halir, X. Le Roux, L. Vivien, **P. Cheben**, E. Durán-Valdeiglesias, I. Molina-Fernández, D. Marris-Morini, D.-X. Xu, J. H. Schmid, S. Janz, A. Ortega-Moñux, "Integrated polarization controller with 40 dB polarization extinction ratio range in the C-Band," 18th Conference on Integrated Optics (ECIO), May 2016, Warsaw, Poland.

C. Alonso-Ramos, D. Pérez-Galacho, D. Benedikovic, **P. Cheben**, J. H. Schmid, D.-X. Xu, E. Cassan, D. Marris-Morini, L. Vivien, "High-efficiency sub-wavelength blazed grating coupler for 300 nm thick silicon on insulator circuits," SPIE Photonics Europe, April 2016, Brussels, Belgium.

J. D. Sarmiento-Merenguel, C. Alonso-Ramos, R. Halir, X. Le Roux, L. Vivien, **P. Cheben**, E. Durán-Valdeiglesias, I. Molina-Fernández, D. Marris-Morini, D.-X. Xu, J. H. Schmid, S. Janz, A. Ortega-Moñux, "Silicon-on-insulator integrated tunable polarization controller," SPIE Photonics Europe, April 2016, Brussels, Belgium.

C. Alonso-Ramos, D. Benedikovic, **P. Cheben**, S. Wang, R. Halir, J.-M. Fédéli, A. Ortega-Moñux, J. H. Schmid, D.-Xia Xu, M. Dado, I. Molina-Fernández, "High efficiency blazed fiber-chip grating coupler based on interleaved trenches," SPIE Photonics Europe, May 2015, Prague, Czech Republic.

P. Cheben, D. Benedikovič, C. Alonso-Ramos, M. Pápeš, J.H. Schmid, D.-X. Xu, S. Janz, S. Wang, M. Vachon, G. Wangüemert-Pérez, R. Halir, A. Ortega-Moñux, I. Molina-Fernández, J.-M. Fédéli, J. Čtyroký, J. S. Penadés, M. Nedeljkovic, G. Mashanovic, W. N. Ye, M. Dado, J. Müllerová and V. Vašinek, "Subwavelength waveguide structures for optical interconnects and sensing," the International Conference on Transparent Optical Network (ICTON) 2015, July 5-9, 2015, Budapest, Hungary. Invited.

D.-X. Xu, S. Janz, M. Vachon, S. Wang, N. Sabourin, **P. Cheben**, J. H. Schmid, J. Lapointe, R. Halir, G. Wangüemert-Pérez, C. Alonso-Ramos, A. Ortega-Moñux, I. Molina-Fernández, J.-M. Fedeli, "Advances in label-free biosensing using CMOS photonic technologies," Integrated Photonics: Materials,

Devices and Applications, SPIE Microtechnologies 2015, paper 9520-4, Barcelona, Spain, 4- 6 May, 2015. Invited.

R. Halir, P. Reyes-Iglesias, C. Alonso-Ramos, D. Sarmiento-Merenguel, G. Wanguemert-Perez, **P. Cheben**, I. Molina-Fernandez, A. Ortega-Monux, "Colorless devices and reception techniques for polarization multiplexed communications," in 2015 17th International Conference on Transparent Optical Networks (ICTON), 5-9 July 2015, Budapest, Hungary. Invited.

Abdelfetah Hadij, Alejandro Sánchez Postigo, Íñigo Molina Fernández and Pavel Cheben, "Demultiplexor integrado basado en rejilla de difracción lateral en tecnología Silicon on Insulator", 9ª Reunión Española de Optoelectrónica, OPTOEL'15, Salamanca, Spain.

Samael Sarmiento-Hernández, Alejandro Ortega-Moñux, Pavel Cheben and Goran Z. Mashanovich, "Design of a broadband power divider for mid-infrared applications", 9ª Reunión Española de Optoelectrónica, OPTOEL'15, Salamanca, Spain.

D.-X. Xu, **P. Cheben**, J. H. Schmid, M. Rahim, B. Lamontagne, J. Lapointe, S. Wang, M. Vachon, L. Mao, C. Fluerau, S. Janz, "Efficient and robust coupling components for hybrid integration with silicon photonics," the 36th PIERS Symposium, Prague, 6-9 July, 2015. Invited.

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M. L. Calvo, T. Alieva, O. Martínez-Matos, J. A. Rodrigo, A. V. Velasco, **P. Cheben**, M. P. Hernández-Garay and A. Cámara, "Holographic photopolymerizable glasses: current challenges for emerging optical information storage and laser beams manipulation applications," Optics Within Life Science, Genova (Italy), July 2012 (invited).

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P. Cheben, "Silicon photonics: From subwavelength engineering to applications in optical interconnects, spectroscopy and biological sensing," the Slovak Academy of Sciences, Bratislava, Slovak Republic, July 2014.

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