

Jacques Albert

Complete list of publications, patents, conference presentations, and talks

Papers in refereed scientific journals (inverse chronological order)

163. C. Caucheteur, T. Guo, and J. Albert, ‘Polarization-Assisted Fiber Bragg Grating Sensors: Tutorial and Review,’ *IEEE/OSA J. Lightwave Technol.* 35, 3311-3322 (2017) [http://dx.doi.org/ 10.1109/JLT.2016.2585738](http://dx.doi.org/10.1109/JLT.2016.2585738)
162. W. Zhou, Y. Zhou, and J. Albert, ‘A true fiber optic refractometer,’ *Laser Photonics Rev.*, 1600157 (2017) <http://dx.doi.org/10.1002/lpor.201600157>
161. C. Caucheteur, T. Guo, F. Liu, B. O. Guan, and J. Albert, ‘Ultra-sensitive plasmonic sensing in air using optical fibre spectral combs,’ *Nat. Comm.* 7:13371 (Nov. 2016)
160. Y. Yuan, T. Guo, X. Qiu, J. Tang, Y. Huang, L. Zhuang, S. Zhou, Z. Li, B.-O. Guan, X. Zhang, and J. Albert, ‘Electrochemical Surface Plasmon Resonance Fiber-Optic Sensor: In Situ Detection of Electroactive Biofilms,’ *Anal. Chem.* 88, 7609-7616 (2016) <http://dx.doi.org/10.1021/acs.analchem.6b01314>
159. D. Feng, W. Zhou, X. Qiao, and J. Albert, ‘High resolution fiber optic surface plasmon resonance sensors with single-sided gold coatings,’ *Opt. Express* 24, 16456-16464 (2016) <http://dx.doi.org/10.1364/OE.24.016456>
158. D. Feng, X. Qiao, and J. Albert, ‘Off-axis ultraviolet-written fiber Bragg gratings for directional bending measurements,’ *Opt. Lett.* 41, 1201-1204 (2016) <http://dx.doi.org/10.1364/OL.41.001201>
157. T. Guo, F. Liu, X. Liang, X. Qiu, Y. Huang, C. Xie, P. Xu, W. Mao, B.-O. Guan, and J. Albert, ‘Highly sensitive detection of urinary protein variations using tilted fiber grating sensors with plasmonic nanocoatings,’ *Biosens. Bioelectron.* 78, 221-228 (2016) <http://dx.doi.org/10.1016/j.bios.2015.11.047>
156. T. Guo, F. Liu, B. Guan, and J. Albert, ‘Tilted fiber grating mechanical and biochemical sensors,’ Invited paper, *Opt. Laser Technol.* Vol. 78, 19-33 (2016)
155. D. Feng, W. Zhou, X. Qiao, and J. Albert, ‘Compact Optical Fiber 3D Shape Sensor Based on a Pair of Orthogonal Tilted Fiber Bragg Gratings,’ *Sci. Rep.* 5, 17415 (2015) [doi: 10.1038/srep17415](https://doi.org/10.1038/srep17415)
154. W. Zhou, D. J. Mandia, S. T. Barry, and J. Albert, ‘Absolute near infrared refractometry with a calibrated tilted fiber Bragg grating,’ *Opt. Lett.* 40(8), 1713-1716 (2015)
153. D. J. Mandia, W. Zhou, A. Wells, J. Albert, and S. Barry, ‘Metallic Nanocoatings on Optical Fibers as a Sensor Platform,’ *ECS Trans.*, vol. 69, no. 7, pp. 171–179 (2015)

152. D. J. Mandia, W. Zhou, M. J. Ward, H. Joress, J. J. Sims, J. B. Giorgi, J. Albert, and S. T. Barry, "The effect of ALD-grown Al₂O₃ on the refractive index sensitivity of CVD gold-coated optical fiber sensors," *Nanotechnology*, vol. 26, no. 43, p. 434002, (2015)
151. A. Van Newkirk, J. E. Antonio-Lopez, A. Velazquez-Benitez, J. Albert, R. Amezcua-Correa, and A. Schülzgen, "Bending Sensor Combining Multicore Fiber with a Mode-Selective Photonic Lantern," *Opt. Lett.* 40, 5188-5191 (Nov. 2015)
150. Z. Cai, F. Liu, T. Guo, B.-O. Guan, G.-D. Peng, and J. Albert, "Evanescently coupled optical fiber refractometer based a tilted fiber Bragg grating and a D-shaped fiber," *Opt. Express* 23, 20971-20976 (3 Aug. 2015)
doi: 10.1364/OE.23.020971
149. V. Marquez-Cruz and J. Albert, "High Resolution NIR TFBG-Assisted Biochemical Sensors," Invited paper, *IEEE/OSA J. Lightwave Technol.* 33, 3363-3373 (August 2015)
148. **A. Bialiyeu**, A. Ianoul, and J. Albert, "Polarization-resolved sensing with tilted fiber Bragg gratings: theory and limits of detection," *J. Opt.* 17, 085601 (2015)
doi:10.1088/2040-8978/17/8/085601
147. C. Caucheteur, T. Guo, and J. Albert, "Review of plasmonic fiber optic biochemical sensors : improving the limit of detection," Invited paper, *Anal. Bioanal. Chem.* 407, 3883–3897 (2015)
DOI 10.1007/s00216-014-8411-6
146. C. Caucheteur, **V. Voisin**, and J. Albert, "Near-infrared grating-assisted SPR optical fiber sensors: design rules for ultimate refractometric sensitivity," *Opt. Express* 23, 2918-2932 (Jan. 2015)
145. **D. J. Mandia**, **W. Zhou**, J. Albert, and S.T. Barry, "Chemical vapor deposition on optical fibers: tilted fiber Bragg gratings as real-time sensing platforms," Invited review, *Chem. Vap. Dep.* 21, 4-20 (2015)
144. **W. Zhou**, **D. J. Mandia**, S. T. Barry, and J. Albert, "Anisotropic effective permittivity of an ultrathin gold coating on optical fiber in air, water and saline solutions," *Opt. Express*, vol. 22, no. 26, p. 31665 (Dec. 2014)
143. **F. Liu**, T. Guo, C. Wu, B. O. Guan, C. Lu, H. Y. Tam, and J. Albert, "Wideband-adjustable reflection-suppressed rejection filters using chirped and tilted fiber gratings," *Opt. Express* 22, 24430-24438 (Sept. 2014)
142. **A. Andreyuk** and J. Albert, "Field-assisted patterned dissolution of silver nanoparticles in phosphate glass," *J. Appl. Phys.* 116, 113106 (2014)

141. **C. Chen**, C. Caucheteur, **V. Voisin**, J. Albert, and P. Berini, “Long-range surface plasmons on gold-coated single-mode fibres,” *J. Opt. Soc. Amer. B* 31, 2354-2362 (2014)
140. **L. Xiong**, **P. Hofmann**, A. Schülzgen, N. Peyghambarian, and J. Albert, “Photosensitivity and thermal stability of UV-induced fiber Bragg gratings in phosphate glass fibers,” *Opt. Mat. Express* 4, 1427-1435 (July 1, 2014)
139. **J. M. Renoirt**, M. Debliqy, J. Albert, A. Ianoul, and C. Caucheteur, “Surface Plasmon Resonances in Oriented Silver Nanowire Coatings on Optical Fibres,” *J. Chem. Phys. C* 118, 11035-11042 (April 28, 2014)
138. **C. Shen**, **L. Xiong**, **A. Bialiyayeu**, **Y. Zhang**, and J. Albert, “Polarization-resolved Near- and Far-field Radiation from Near Infrared Tilted Fiber Bragg Gratings,” *IEEE\OSA J. Lightwave Technol.* 32, 2157-2162 (June 1, 2014)
137. A. Ianoul, **M. Robson**, **V. Pripotnev**, and J. Albert, “Polarization-selective excitation of plasmonic resonances in silver nanocube random arrays by optical fiber cladding mode evanescent fields,” *RCS Adv.* 4, 19725-197230 (April 2014)
136. **S. Lépinay**, A. Ianoul, and J. Albert, “Molecular imprinted polymer-coated optical fiber sensor for the identification of low molecular weight molecules,” *Talanta* 128, 401-407 (May 2, 2014)
135. **L. Xiong**, **P. Hofmann**, A. Schülzgen, N. Peyghambarian, and J. Albert, “Short monolithic dual-wavelength single-longitudinal-2 mode DBR phosphate fiber laser,” *Appl. Opt.* 53, 3848-3853 (June 20, 2014)
134. T. Guo, **F. Liu**, B. O. Guan, and J. Albert, “Polarimetric multi-mode tilted fiber grating sensors,” *Opt. Express* 22, 7330-7336 (March 2014)
133. **C. Shen**, **W. Zhou**, and J. Albert, “Polarization-resolved evanescent wave scattering from gold-coated tilted fiber gratings,” *Opt. Express*, vol. 22, no. 5, p. 5277-82 (Feb. 2014)
132. **C. Shen**, **Y. Zhang**, **W. Zhou**, and J. Albert, “Au-coated tilted fiber Bragg grating twist sensor based on surface plasmon resonance,” *App. Phys. Lett.* 104, 071106 (2014) [dx.doi.org/10.1063/1.4865932](https://doi.org/10.1063/1.4865932)
131. **Y. Shevchenko**, **G. Camci-Unal**, **D. F. Cuttica**, **M. R. Dokmeci**, J. Albert, and A. Khademhosseini, “Surface Plasmon Resonance Fiber Sensor for Real-Time and Label-Free Monitoring of Cellular Behavior,” *Biosens. Bioelectron.* 56, 359-367 (2014) [dx.doi.org/10.1016/j.bios.2014.01.018](https://doi.org/10.1016/j.bios.2014.01.018)
130. T. Guo, **F. Liu**, N. K. Chen, B. O. Guan, and J. Albert, “In-situ detection of density alteration in non-physiological cells with polarimetric tilted fiber grating sensors,” *Biosens. Bioelectron.* 55, 452-458 (2014)

129. **V. Voisin**, C. Caucheteur, P. Mégret, and J. Albert, “Anomalous effective strain-optic constants of non-paraxial optical fiber modes,” *Opt. Lett.* 39, 578-581 (2014)
128. **W. Zhou, D. Mandia, M. Griffiths**, S. Barry, J. Albert, “Effective Permittivity of Ultrathin Chemical Vapor Deposited Gold Films on Optical Fibers at Infrared Wavelengths,” *J. Phys. Chem. C* 118, 670–678 (2014)
127. **S. Lepinay, A. Staff**, A. Ianoul, and J. Albert, “Improved detection limits of protein optical fiber biosensors coated with gold nanoparticles,” *Biosensors & Bioelectron.* 52, 337-344 (2014)
126. **L. Xiong, P. Hofmann**, A. Schulzgen, N. Peyghambarian, and J. Albert, “Deep UV induced near infrared photodarkening of Er/Yb doped and undoped phosphate fibers,” *Opt. Lett.* 38, 4193-4196 (2013)
125. **D. J. Mandia, M. B. E. Griffiths, W. Zhou, P. G. Gordon**, J. Albert and, S. Barry, “In situ deposition monitoring by a tilted fiber Bragg grating optical probe: Probing nucleation in chemical vapour deposition of gold,” *Physics Procedia* 46, 12-20 (2013)
124. **M. Z. Alam** and J. Albert, “Selective excitation of radially and azimuthally polarized optical fiber cladding modes,” *IEEE/OSA J. Lightwave Technol.* 31, 3167-3175 (2013)
123. T. Guo, F. Liu, F. Du, Z. Zhang, C. Li, B.-O. Guan, and J. Albert, “VCSEL-powered and polarization-maintaining fiber-optic grating vector rotation sensor,” *Opt. Exp.* 21, 19097-19102 (2013)
122. F. Liu, T. Guo, J. G. Liu, X. Y. Zhu, Y. Liu, B. O. Guan, and J. Albert, “High-sensitive and temperature-self-calibrated tilted fiber grating biological sensing probe,” *Chin. Sci. Bull.* 58, 2611-2615 (2013)
121. J. Albert, **S. Lepinay**, C. Caucheteur, and M. C. Derosa, “High resolution grating-assisted surface plasmon resonance fiber optic aptasensor.,” *Methods*, vol. 63, no. 3, pp. 239–54, Oct. 2013.
120. C. Caucheteur, **V. Voisin**, and J. Albert, “Polarized spectral combs probe optical fiber surface Plasmons,” *Opt. Exp.* 21, 3055-3066 (2013)
119. L.Y. Shao, M. Yin, H.-Y. Tam, and J. Albert, “Fiber Optic pH Sensor with Self-Assembled Polymer Multilayer Nanocoatings,” *Sensors* 13, 1425-1434 (2013)
118. T. Guo, L. Shang, F. Liu, C. Wu, B.-O. Guan, H.-Y. Tam, J. Albert, “Polarization-maintaining fiber-optic-grating vector vibroscope,” *Opt. Lett.* 38, 531-533 (2013)

117. J. Albert, **L. Y. Shao**, and C. Caucheteur, “Tilted Fiber Bragg Grating Sensors,” *Laser Photonic Rev.* 7, 83–108 (2013) (*Invited paper*)
116. **W. Zhou, D. J. Mandia, M. B. E. Griffiths, A. Bialiyeyu, Y. Zhang, P. G. Gordon**, S. T. Barry, and J. Albert, “Polarization-dependent properties of the cladding modes of a single mode fiber covered with gold nanoparticles,” *Opt. Exp.* 21, 245-255 (2013)
115. **W. Zhou**, Y. Zhou, X. Dong, L. Shao, J. Cheng, J. Albert, “Fiber-Optic Curvature Sensor Based on Cladding-Mode Bragg Grating Excited by Fiber Multimode Interferometer,” *IEEE Photon. J.* 4, 1051-1057 (2012)
114. T. Guo, L. Shang, Y. Ran, B.-O. Guan, and J. Albert, “Fiber-optic vector vibroscope,” *Opt. Lett.* 37, 2703-2705 (2012)
113. **A. Bialiyeyu, A. Bottomley, D. Prezgot**, A. Ianoul, and J. Albert, “Plasmon-enhanced refractometry using silver nanowire coatings on tilted fibre Bragg gratings,” *Nanotechnology* 23 (2012) 444012 (10pp) doi:10.1088/0957-4484/23/44/444012
112. **H. Shahoei**, J. Albert, and J. P. Yao, “Tunable Fractional Order Temporal Differentiator Using an Optically Pumped Tilted Fiber Bragg Grating,” *Phot. Technol. Lett.* 24, 730-732 (2012)
111. **L.Y. Shao**, M. B. Jakubinek, T. Sun, B. Simard, and J. Albert, “Four-wave mixing in carbon nanotube-coated optical fiber gratings,” *Appl. Phys. Lett.* 100, 071108 (2012)
110. J. Albert, “Tilted Fiber Bragg Gratings as Multi-Sensors”, *Optics and Photonics News*, Vol. 22 Issue 10, pp.28-33 (2011)
109. **K. Yadav**, C. L. Callender, C. W. Smelser, C. Ledderhof, C. Blanchetiere, S. Jacob, and J. Albert, “Giant enhancement of the second harmonic generation efficiency in poled multilayered silica glass structures,” *Opt. Exp.* 19, 26975-26983 (2011)
108. **A. Bialiyeyu**, C. Caucheteur, **N. Ahamad**, A. Ianoul, and J. Albert, “Self-optimized Metal Coatings for Fiber Plasmonics by Electroless Deposition,” *Opt. Exp.* 19, 18742–18753 (2011)
107. **Y. Shevchenko, T. J. Francis, D. A. D. Blair, R. Walsh**, M.C.DeRosa and J. Albert, “In situ Biosensing With a Surface Plasmon Resonance Fiber Grating Aptasensor,” *Anal. Chem.* 83, pp 7027–7034 (2011)
106. **C. Caucheteur, C. Chen, V. Voisin**, P. Berini, and J. Albert, “A thin metal sheath lifts the EH to HE degeneracy in the cladding mode refractometric sensitivity of optical fiber sensors,” *Appl. Phys. Lett.* 99, 041118 (July 2011)

105. **V. Voisin, C. Caucheteur**, P. Mégret, and J. Albert, "Interrogation technique for TFBG-SPR refractometers based on differential orthogonal light states," *Appl. Opt.* 50, 4257-4261 (2011)
104. **K. Yadav**, C. W. Smelser, S. Jacob, C. Blanchetiere, C. L. Callender, and J. Albert, "Simultaneous Corona Poling of Multiple Glass Layers for Enhanced Effective Second-Order Optical Nonlinearities," *Appl. Phys. Lett.* 99, 031109 (2011)
103. **L. Shao, J. P. Coyle**, S. T. Barry, and J. Albert, "Anomalous permittivity and plasmon resonances of copper nanoparticle conformal coatings on optical fibers," *Opt. Mater. Express* 1, 128-137 (2011)
102. **G. E. Villanueva**, M. B. Jakubinek, B. Simard, C. J. Oton, **L.-Y. Shao**, P. Perez-Millan, and J. Albert, "Linear and nonlinear optical properties of carbon nanotube coated single mode optical fiber gratings," *Opt. Lett.* 36, 2104 (2011)
101. **M. Li, L. Shao**, J. Albert, J. Yao, "Tilted Fiber Bragg Grating for Chirped Microwave Waveform Generation," *Photon. Technol. Lett.* 23, 314-316 (2011)
100. **C. Caucheteur, Y. Shevchenko, L. Shao**, M. Wuilpart, and J. Albert, "High resolution interrogation of tilted fiber grating SPR sensors from polarization properties measurement," *Opt. Express* 19, 1656-1664 (2011)
99. **L.-Y. Shao** and J. Albert, "Lateral Force Sensor Based on a Core-Offset Tilted Fiber Bragg Grating," *Opt. Comm.* 284, 1855-1858 (2011)
98. **M. Li, L. Shao**, J. Albert, J. Yao, "Continuously Tunable Photonic Fractional Temporal Differentiator Based on a Tilted Fiber Bragg Grating" *Photon. Technol. Lett.* 23, 251-253 (2011)
97. **L.-Y. Shao**, Q. Jiang, and J. Albert, "Fiber optic pressure sensing with conforming elastomers," *Appl. Opt.* 49, 6784-6788 (2010)
96. **L.-Y. Shao, L. Xiong, C. Chen, A. Laronche**, and J. Albert, "Directional Bend Sensor Based on Re-grown Tilted Fiber Bragg Grating," *IEEE/OSA J. Lightwave Technol.* 28, 2681-2687 (2010)
95. **Y. Shevchenko, N. U. Ahamad**, A. Ianoul, and J. Albert, "In situ monitoring of the formation of nanoscale polyelectrolyte coatings on optical fibers using Surface Plasmon Resonances," *Opt. Express* 18, 20409-20421 (2010)
94. **H. Guo**, G. Xiao, N. Mrad, J. Albert, and J. Yao, "Wavelength interrogator based on closed-loop piezo-electrically scanned space-to-wavelength mapping of an arrayed waveguide grating," *IEEE/OSA J. Lightwave Technol.* 28, 2654-2659 (2010)

93. **L. Shao, Y. Shevchenko**, and J. Albert, “Intrinsic temperature sensitivity of tilted fiber Bragg grating based surface plasmon resonance sensors,” *Opt. Express* 18, 11464-11471 (2010)
92. **L. Shao** and J. Albert, “Compact Fiber-Optic Vector Inclinometer,” *Opt. Lett.* 35, 1034–1036 (2010).
91. **L. Shao**, A. Laronche, **M. Smietana**, P. Mikulic, W. J. Bock and J. Albert, “Highly Sensitive Bend Sensor with Hybrid Long-Period and Tilted Fiber Bragg Grating,” *Opt. Comm.* 283, 2690–2694 (2010)
90. **Y. Shevchenko, C. Chen, M. A. Dakka**, and J. Albert, “Polarization-selective grating excitation of plasmons in cylindrical optical fibers,” *Opt. Lett.* 35, 637-639 (2010)
89. **T. Guo, L. Shao**, H.-Y. Tam, P. A. Krug and J. Albert, “Tilted fiber grating accelerometer incorporating an abrupt biconical taper for cladding to core recoupling,” *Opt. Express* 17, 20651-20660 (2009)
88. **L. Xiong** and J. Albert, “Effect of writing beam spatial coherence on fiber Bragg grating modulation contrast and thermal stability,” *J. Opt. Soc. Am. B* 26, 2136-2142 (2009)
87. **S. Rahimi**, D. Ban, G. Xiao, Z. Zhang, and J. Albert “Temperature and Strain Sensors Based on Integration of Tilted Fiber Bragg Gratings with a Free Spectral Range Matched Interrogation System,” *IEEE Sensors J.* 9, 858-861 (2009)
86. P. A. Krug, **R. M. Rogojan**, and J. Albert, “Directly Photoinscribed Refractive Index Change and Bragg Gratings in Ohara WMS-15 Glass-Ceramic,” *Appl. Opt.* 48, 3429-3437 (2009)
85. **D. Celo**, E. Post, **M. Summers**, T. Smy, M.J. Brett, and J. Albert, “Interferometric sensing platform with dielectric nanostructured thin films,” *Opt. Express* 17, 6655-6664 (2009)
84. **T. Guo**, H. Tam, P. A. Krug, and J. Albert, “Reflective tilted fiber Bragg grating refractometer based on strong cladding to core recoupling,” *Opt. Express* 17, 5736-5742 (2009)
83. **T. Guo, C. Chen**, and J. Albert, “Non-uniform-tilt-modulated fiber Bragg grating for temperature-immune micro-displacement measurement,” *Meas. Sci. Technol.* 20, 034007 (2009)
82. **C. Caucheteur**, M. Wuilpart, **C. Chen**, P. Mégret, and J. Albert, “Quasi-distributed refractometer using tilted Bragg gratings and time domain reflectometry,” *Opt. Express* 16, 17882-17890 (2008)

81. P. Cheben, E. Post, S. Janz, J. Albert, A. Laronche, J. H. Schmid, D.-X. Xu, B. Lamontagne, J. Lapointe, A. Del ge, and A. Densmore, "Tilted fiber Bragg grating sensor interrogation system using a high-resolution silicon-on-insulator arrayed waveguide grating," *Opt. Lett.* 33, 2647 (2008)
80. C. Caucheteur, S. Bette, **C. Chen**, M. Wuilpart, P. M gret, and J. Albert, "Tilted fiber Bragg grating refractometer using polarization dependent loss measurement," *Photon. Technol. Lett.* 20, 2153 (2008)
79. **C. Chen**, A. Laronche, G. Bouwmans, L. Bigot, Y. Quiquempois, and J. Albert, "Sensitivity of photonic crystal fiber modes to temperature, strain and external refractive index," *Opt. Express* 16, 9645-9653 (2008)
78. **T. Guo**, **A. Ivanov**, **C. Chen**, and J. Albert, "Temperature-independent tilted fiber grating vibration sensor based on cladding-core recoupling," *Opt. Lett.* 33, 1004-1006 (2008).
77. A. Sch lzen, **L. Li**, D. Nguyen, C. Spiegelberg, **R. Matei Rogoian**, A. Laronche, J. Albert, and N. Peyghambarian, "Distributed Feedback Fiber Laser Pumped by Multimode Laser Diodes," *Opt. Lett.* 33, 614-616 (2008)
76. **T. Guo**, **C. Chen**, A. Laronche, and J. Albert, "Power-referenced and temperature-calibrated optical fiber refractometer," *Photon. Technol. Lett.* 20, 635-637 (2008)
75. **D. Celo**, R. Vandusen, T. Smy, J. Albert, N.G. Tarr, and P. D. Waldron, "Low temperature plasma etching for Si₃N₄ waveguide applications," *J. Vac. Sci. Technol. A* 26, 253-258 (2008)
74. **L. Li**, A. Sch lzen, **X. Zhu**, J. V. Moloney, J. Albert, and N. Peyghambarian, "1-W Tunable Dual-Wavelength Emission From Cascaded Distributed Feedback Fiber Lasers," *App. Phys. Lett.* 92, 051111 (2008)
73. **S. Yliniemi**, **Q. Wang**, J. Albert, and S. Honkanen, "Studies on passive and active silver-sodium ion-exchanged glass waveguides and devices," *Mat. Sci. and Eng. B* 149, 152-158 (2008)
72. X. Dai, R. B. Walker, S. J. Mihailov, **C. Chen**, C. Blancheti re, C. L. Callender, J. Albert, "Temperature Insensitive Refractometer Using Core and Cladding Modes in Open-Top Ridge Waveguide," *IEEE Sensors J.* 8, 451-456 (2008)
71. G. Xiao, F. Sun, Z. Zhang, Z. Lu, J. Liu, F. Wu, N. Mrad, and J. Albert, "Miniaturized optical fiber Bragg grating sensor interrogator based on echelle diffractive gratings," *Microwave Opt. Technol. Lett.* 49, 668 (2007)

70. **C. Chen, C. Caucheteur**, P. Mégret, and J. Albert, “The sensitivity characteristics of tilted fiber Bragg grating sensors with different cladding thicknesses,” *Meas. Sci. Technol.* **18**, 3117-3122 (2007)
69. **Y. Shevchenko** and J. Albert, “Plasmon Resonances in Gold-Coated Tilted Fiber Bragg Gratings,” *Opt. Lett.* **32**, 211-213 (2007)
68. **C. F. Chan, C. Chen, A. Jafari, A. Laronche**, D. J. Thomson, and J. Albert, “Optical fiber refractometer using narrowband cladding mode resonance shifts,” *Appl. Opt.* **46**, 1142-1149 (2007)
67. **S. Yliniemi**, S. Honkanen, A. Ianoul, A. Laronche, and J. Albert
“Photosensitivity and volume gratings in phosphate glasses for rare-earth-doped ion-exchanged optical waveguide lasers,” *J. Opt. Soc. Amer. B23*, 2470-2478 (2006)
66. **C. Chen** and J. Albert
“Strain-optic coefficients of the individual cladding modes of a single mode fiber: theory and experiment,” *Electron. Lett.* **42**, 21-22 (2006)
65. J. Albert, A. Schülzgen, V. L. Temyanko, S. Honkanen, and N. Peyghambarian,
“Strong Bragg gratings in Phosphate Glass Single Mode Fiber,” *Appl. Phys. Lett.* **89**, 101127 (2006).
64. **S. Yliniemi**, J. Albert, A. Laronche, **J. M. Castro**, D. Geraghty, and S. Honkanen,
“Negligible birefringence in dual-mode ion-exchanged glass waveguide gratings,” *Appl. Opt.* **45**, 6602-6606 (2006)
63. **S. Yliniemi**, J. Albert, **Q. Wang**, and S. Honkanen, “UV-exposed Bragg gratings for laser applications in silver-sodium ion-exchanged phosphate glass waveguides,” *Opt. Express* Vol. **14**, 2898-2903 (2006)
62. J. Albert, **M. Fokine**, and W. Margulis
“Grating formation in pure silica core fibers”
Opt. Lett. **27**, 809-811 (2002)
61. S. J. Mihailov, F. Bilodeau, K. O. Hill, D. C. Johnson, J. Albert, and A. S. Holmes,
“Apodization Technique for Fiber Grating Fabrication with a Halftone Transmission Amplitude Mask,” *Appl. Opt.* **39**, 3670-3677 (2000)
60. Y. Hibino, M. Abe, T. Tanaka, A. Himeno, J. Albert, D. C. Johnson, and K. O. Hill
“Temperature-insensitive UV-induced Bragg gratings in silica-based planar lightwave circuits on Si”
Electron. Lett. **35**, 1844-1845 (1999)
59. J. Albert, K. O. Hill, D. C. Johnson, F. Bilodeau, S. J. Mihailov, N. F. Borrelli, and J. Amin

“Bragg gratings in defect-free germanium-doped optical fibers”
Opt. Lett. 24, 1266-1268 (1999)

58. J. Albert, F. Bilodeau, D. C. Johnson, K. O. Hill, K. Hattori, T. Kitagawa, Y. Hibino, and M. Abe
“Low loss planar lightwave circuit OADM with high isolation and no polarisation dependence”
Photon. Technol. Lett. 11, 346-348 (1999)

57. K. Hattori, M. Abe, J. Albert, F. Bilodeau, K. O. Hill, Y. Hibino, T. Kitagawa, and K. Oguchi
“Coherent crosstalk of optical add-drop filter with Bragg gratings in PLC Mach-Zehnder interferometer for optical LAN”
Photon. Technol. Lett. 11, 272-274 (1999).

56. A. L. Tchébotareva, J. L. Brebner, S. Roorda, J. Albert
“Effect of proton implantation on the photosensitivity of SMF-28 optical fiber”
Nucl. Inst. Methods B 148, 687-691 (1999)

55. S. J. Mihailov, F. Bilodeau, K. O. Hill, D. C. Johnson, J. Albert, D. Stryckman, and C. Shu
“Comparison of fiber Bragg grating dispersion-compensators made with holographic and E-beam written phase masks”
Photon. Technol. Lett. 11, 572-574 (1999)

54. M. Essid, J. Albert, and J. L. Brebner
“Correlation between initial oxygen-deficient center concentration and KrF excimer laser induced defects in thermally annealed Ge-doped optical fiber preforms”
J. Non-Crystal. Sol. 246, 39-45 (1999)

53. J. Albert
“Permanent photoinduced refractive-index changes for Bragg gratings in silicate glass waveguides and fibers”
Invited paper, MRS Bulletin, Vol. 23, pp.36-41, November (1998) (*Invited paper*)

52. R. C. Tiberio, D. W. Carr, M. J. Rooks, S. J. Mihailov, F. Bilodeau, J. Albert, D. Stryckman, D. C. Johnson, K. O. Hill, A. W. McClelland, and B. J. Hughes
“Fabrication of electron beam generated, chirped, phase mask (1070.11-1070.66 nm) for fiber Bragg grating dispersion compensator”
J. Vac. Sci. Technol. B16, 3237-3240 Nov./Dec. (1998)

51. M. Essid, J. L. Brebner, J. Albert, and K. Awazu
“Difference in the behavior of oxygen deficient defects in Ge-doped silica optical fiber preforms under ArF and KrF excimer laser irradiation”
J. Appl. Phys. 84, 4193-4197 (1998)

50. J. Albert, F. Bilodeau, D. C. Johnson, K. O. Hill, S. J. Mihailov, D. Stryckman, T. Kitagawa, and Y. Hibino
"Polarization-independent strong Bragg gratings in Planar Lightwave Circuits"
Electron. Lett. 34, 485-486 (1998)
49. M. Essid, J. L. Brebner, J. Albert, and K. Awazu
"Ion implantation induced photosensitivity in Ge-doped silica: Effect of induced defects on refractive index changes"
Nucl. Inst. Meth. B 141, 616-619 (1998)
48. L. B. Allard, J. L. Brebner, J. Albert, and G. R. Atkins
"Photoinduced optical absorption and 400-nm luminescence in low-germanium content optical fiber preforms irradiated with ArF and KrF excimer-laser light"
Opt. Lett. 22, 819-821 (1997)
47. S. Thériault, K. O. Hill, F. Bilodeau, D. C. Johnson, J. Albert, G. Drouin, and A. Béliveau
"High-g accelerometer based on an In-fiber Bragg grating sensor"
Optical Review 4, 145-147 (1997)
46. J. Albert, K. O. Hill, D. C. Johnson, F. Bilodeau, and M. J. Rooks
"Moire phase masks for the automatic pure apodisation of fibre Bragg gratings"
Electron. Lett. 32, 2260-2261 (1996)
45. J. Albert, S. Thériault, F. Bilodeau, D. C. Johnson, K. O. Hill, P. Sixt, M. Rooks
"Minimization of phase errors in long fiber Bragg grating phase masks made using electron beam lithography"
Photon. Technol. Lett. 8, 1334-1336 (1996)
44. T. Tanaka, H. Takahashi, M. Oguma, T. Hashimoto, Y. Hibino, Y. Yamada, Y. Itaya, J. Albert, K. O. Hill
"External cavity laser composed of laser diode and UV written grating integrated on Si"
Electron. Lett. 32, 1202-1203 (1996)
43. M. Verhaegen, J. L. Brebner, L. B. Allard, J. Albert
"Ion implantation-induced strong photosensitivity in high-purity fused silica: correlation of index changes with VUV centers"
Appl. Phys. Lett. 68, 3084-3086 (1996)
42. A. P. Knights, P. J. Simpson, L. B. Allard, J. L. Brebner, and J. Albert
"Si ion implantation induced damage in fused silica probed by variable-energy positrons"
J. Appl. Phys. 79, 9022-9028 (1996)
41. Y. Hibino, T. Kitagawa, K. O. Hill, F. Bilodeau, B. Malo, J. Albert, and D. C. Johnson

- "Wavelength Division Multiplexer with photoinduced Bragg gratings fabricated in Planar-Lightwave-Circuit-type asymmetric Mach-Zehnder interferometer on Si"
Photon. Technol. Lett. 8, 84-86 (1996)
40. L. E. Erickson, H. G. Champion, J. Albert, K. O. Hill, B. Malo, S. Thériault, F. Bilodeau, and D. C. Johnson
"Fabrication of a variable diffraction efficiency phase mask by multiple dose ion implantation"
J. Vac. Sci. Technol. B13, 2940-ff (1995)
39. M. Verhaegen, L. B. Allard, J. L. Brebner, M. Essid, S. Roorda, J. Albert
"Photorefractive waveguides produced by ion implantation of fused silica"
Nucl. Inst. Meth. B 106, 438-ff (1995)
38. J. Albert, B. Malo, K. O. Hill, F. Bilodeau, D. C. Johnson, and S. Thériault
"Comparison of one-photon and two-photon effects in the photosensitivity of germanium-doped silica optical fibers exposed to intense ArF excimer laser pulses"
Appl. Phys. Lett. 67, 3529-3531 (1995)
37. B. Malo, J. Albert, K. O. Hill, F. Bilodeau, D. C. Johnson, and S. Thériault
"Enhanced photosensitivity in lightly doped standard telecommunication fibre exposed to high fluence ArF excimer laser light"
Electron. Lett. 31, 879-880 (1995)
36. K. O. Hill, B. Malo, F. Bilodeau, S. Thériault, D. C. Johnson, and J. Albert
"Variable spectral response optical waveguide Bragg grating filters for optical signal processing"
Opt. Lett. 20, 1438-1440 (1995)
35. J. Albert, J. Huttunen and J. Saarinen
"Planar Fresnel lens photoimprinted in a germanium-doped silica optical waveguide"
Opt. Lett. 20, 1136-1138 (1995)
34. B. Malo, S. Thériault, D. C. Johnson, F. Bilodeau, J. Albert, and K. O. Hill
"Apodized in-fibre Bragg grating reflectors photoimprinted using a phase mask"
Electron. Lett. 31, 223-225 (1995)
33. J. Albert, K. O. Hill, B. Malo, S. Thériault, F. Bilodeau, D. C. Johnson, and L. E. Erickson
"Apodization of the spectral response of fibre Bragg gratings using a phase mask with variable diffraction efficiency"
Electron. Lett. 31, 222-223 (1995)
32. F. Bilodeau, D. C. Johnson, S. Thériault, B. Malo, J. Albert, and K. O. Hill
"An all-fiber dense-wavelength-division multiplexer/demultiplexer using photoimprinted Bragg gratings"

Photon. Technol. Letters 7, 388-390 (1995)

31. K. O. Hill, S. Thériault, B. Malo, F. Bilodeau, T. Kitagawa, D. C. Johnson, J. Albert, K. Takiguchi, T. Katakao, and K. Hagimoto

"Chirped in-fibre Bragg grating dispersion compensators: Linearisation of dispersion compensation in 100 km, 10 Gbit/s optical fibre link"

Electron. Lett. 30, 1755-1756 (1994)

30. T. Kitagawa, F. Bilodeau, B. Malo, S. Thériault, J. Albert, D. C. Johnson, K. O. Hill, K. Hattori, Y. Hibino

"Single-frequency Er^{3+} -doped silica-based planar waveguide laser with integrated photo-imprinted Bragg reflectors"

Electron. Lett. 30, 1311-1312 (1994)

29. K. O. Hill, F. Bilodeau, B. Malo, T. Kitagawa, S. Thériault, D. C. Johnson, and J. Albert

"Chirped in-fiber Bragg gratings for optical fiber dispersion compensation"

Opt. Lett. 19, 1314-1316 (1994)

28. B. Malo, J. Albert, F. Bilodeau, T. Kitagawa, D. C. Johnson, K. O. Hill, K. Hattori, Y. Hibino, and S. Gujrathi

"Photosensitivity in phosphorus doped silica glass and optical waveguides"

Appl. Phys. Lett. 65, 394-396 (1994)

27. B. Malo, J. Albert, K. O. Hill, F. Bilodeau, and D. C. Johnson

"Effective index drift from molecular hydrogen diffusion in hydrogen-loaded optical fibres and its effect on Bragg grating fabrication"

Electron. Lett. 30, 442-444 (1994)

26. J. Albert, B. Malo, F. Bilodeau, D. C. Johnson, K. O. Hill, Y. Hibino, and M. Kawachi

"Photosensitivity in Germanium-doped silica optical waveguides and fibers using 193 nm light from an ArF excimer laser"

Opt. Lett. 19, 387-389 (1994)

25. F. Bilodeau, K. O. Hill, B. Malo, D. C. Johnson, and J. Albert

"High-return-loss narrowband all-fiber bandpass Bragg transmission filter"

Photon. Technol. Lett. 6, 80-82 (1994)

24. J. Albert, K. O. Hill, B. Malo, D. C. Johnson, I. M. Templeton, and J. L. Brebner

"Maskless writing of submicron gratings in fused silica by focused ion beam implantation and differential wet etching"

Appl. Phys. Lett. 63, 2309-2311 (1993)

23. B. Malo, K. O. Hill, F. Bilodeau, D. C. Johnson, and J. Albert

"Point-by-point fabrication of micro-Bragg gratings in photosensitive fibre using single excimer pulse refractive index modification techniques"
Electron. Lett. 29, 1668-1669 (1993)

22. B. Malo, D. C. Johnson, F. Bilodeau, J. Albert, and K. O. Hill
"Single excimer pulse writing of fibre gratings using a phase mask: grating spectral response and visualisation of index perturbations"
Opt. Lett. 18, 1277-1279 (1993)

21. K. O. Hill, B. Malo, F. Bilodeau, D. C. Johnson, and J. Albert
"Bragg gratings fabricated in monomode photosensitive optical fiber by UV exposure through a phase mask"
Appl. Phys. Lett. 62, 1035-1037 (1993)

20. F. Bilodeau, B. Malo, J. Albert, D. C. Johnson, K. O. Hill, Y. Hibino, M. Abe, and M. Kawachi
"Photosensitization of optical fiber and silica-on-silicon/silica waveguides"
Opt. Lett. 18, 953-955 (1993)

19. J. Albert, B. Malo, D. C. Johnson, F. Bilodeau, K. O. Hill, J. L. Brebner, and G. Kajrys
"Dichroism in Absorption Spectrum of Photobleached Ion Implanted Silica"
Opt. Lett. 18, 1126-1128 (1993)

18. J. Albert, B. Malo, D. C. Johnson, K. O. Hill, J. L. Brebner, and R. Leonelli
"Refractive index changes in fused silica produced by heavy ion implantation followed by photobleaching"
Opt. Lett. 17, 1652-1654 (1992)

17. B. Malo, J. Albert, D. C. Johnson, F. Bilodeau, and K. O. Hill
"Elimination of photo-induced absorption in Ge-doped silica fibers by annealing of ultraviolet colour centres"
Electron. Lett. 28, 1598-1599 (1992)

16. C. L. Callender, S. J. Karnas, J. Albert, C. Roux, and M. Leclerc
"Third harmonic generation measurements on thin films of novel substituted polythiophenes"
Opt. Mat. 1, 125-131 (1992)

15. P. C. Noutsios, G. L. Yip, and J. Albert
"Novel vertical directional coupler made by field-assisted ion exchanged slab waveguides in glass"
Electron. Lett. 28, 1340-1341 (1992)

14. J. Albert, K. O. Hill, B. Malo, D. C. Johnson, J. L. Brebner, Y. B. Trudeau, and G. Kajrys

"Formation and bleaching of strong ultraviolet absorption bands in germanium implanted synthetic fused silica"

Appl. Phys. Lett. 60, 148-150 (1992)

13. C. L. Callender, C. A. Carere, J. Albert, L.-L. Zhou, and D. J. Worsfold

"Determination of third-order nonlinear optical susceptibilities of polysilane thin films"

J. Opt. Soc. Am. B9, 518-523 (1992)

12. S. I. Najafi, P. Lefebvre, J. Albert, S. Honkanen, A. Vahid-Shahidi, and W. J. Wang

"Ion-exchanged Mach-Zehnder interferometers in glass"

Appl. Opt. 31, 3381-3383 (1992)

11. P. Pöyhönen, S. Honkanen, A. Tervonen, M. Tahkokorpi, and J. Albert

"Planar 1/8 splitter in glass by photoresist masked silver film ion exchange"

Electron. Lett. 27, 1319-1320 (1991)

10. M. J. Li, S. Honkanen, W. J. Wang, R. Leonelli, J. Albert, and S. I. Najafi

"Potassium and silver ion-exchanged dual-core glass waveguides with gratings"

App. Phys. Lett. 58, 2607-2609 (1991)

9. B. Malo, K. A. Vineberg, F. Bilodeau, J. Albert, D. C. Johnson, and K. O. Hill

"Ultraviolet light photosensitivity in Ge-doped silica fibres: Wavelength dependence of the light-induced index change"

Opt. Lett. 15, 953-955 (1990)

8. J. Albert, and J. W. Y. Lit

"Full modelling of field-assisted ion-exchange for graded-index, buried channel optical waveguides"

Appl. Opt. 29, 2798-2804 (1990)

7. B. Malo, F. Bilodeau, K. O. Hill, D. C. Johnson, and J. Albert

"Unbalanced dissimilar-fiber Mach-Zehnder interferometer: Application as filter"

Electron. Lett. 25, 1416-1417 (1989)

6. J. Albert and G. L. Yip

"Insertion loss reduction between single-mode fibers and diffused channel waveguides"

Appl. Opt. 27, 4837-4843 (1988)

5. J. Albert and G. L. Yip

"Wide single-mode channels and directional coupler by two-step ion-exchange in glass"

IEEE J. Lightwave Technol. LT-6, 552-563 (1988)

4. J. Albert and G. L. Yip

"Stress-induced index change for K^+ - Na^+ ion-exchange in glass"

Electron. Lett. 23, 737-738 (1987)

3. J. Albert and G. L. Yip
"Refractive-index profiles of planar waveguides made by ion-exchange in glass"
Appl. Opt. 24, 3692-3693 (1985)
2. G. L. Yip and J. Albert
"Characterization of planar optical waveguides by K⁺-ion exchange in glass"
Opt. Lett. 10, 151-153 (1985)
1. J. Albert, D. Vincent, and R. Tremblay
"Hybrid bistable optical device using an acoustooptic waveguide modulator"
Can. J. Physics 59, 1251-1253 (1981)

Patents

6. J. Albert, C. Chen, Y. Shevchenko and A. Ivanov
"Tilted grating sensor", US Patent 8,554,024 B2 (Oct. 8, 2013)
5. A. Schulzgen, J. Albert, N. Peyghambarian, S. Honkanen, and L. Li
"Phosphate glass based optical device and method", US Patent 8,077,747 (Dec. 13 2011)
4. V. Girardon, C. Tessier-Lescouret, S. André, J. Albert, and J. Fersht,
"Optical fibre with light guide, protective coating and a section structured as an optical filter of the Bragg grating type, has a coating of UV-crosslinked silicone elastomer over the filter section", French Patent FR2847989, (2004)
3. J. Albert
"Adjustable temperature compensating package for optical fiber devices"
US Patent 6,807341 B2 (2004)
2. J. Albert, F. Bilodeau, K. O. Hill, D. C. Johnson, and S. J. Mihailov
"Polarization insensitive grating in a planar channel optical waveguide and method to achieve the same"
US Patent 6,256,435 (2001)
1. F. C. Bilodeau, B. Y. Malo, J. Albert, D. C. Johnson, and K. O. Hill
"Photosensitization of optical fibers and silica waveguides"
US Patent 5,495,548 (1996)

Patent applications

5. H. Jean-Ruel, J. Albert, J. Koppert, C. Harder, S. Golovan, A. Shayanpour, A. Ianoul, J. Coyle. (Patent pending, filed Aug. 12 2016). "Light-absorbing optical fiber-based systems and methods." U.S. Provisional Patent Application No. 62/374,506
4. J. Albert, A. Ianoul, A. Bialiayeu, and A. Bottomley, "OPTICAL FIBER WITH GRATING AND PARTICULATE COATING," PCT/US13/46850 (filed June 20, 2013)

3. J. Albert, A. Ianoul, A. Bialaiyeu, and A. Bottomley, "Optical Fiber with Tilted Grating and Dual-Functional Porous Coating," US Provisional application number 61/662,212 (June 26, 2012)

2. J. Albert

"Passive temperature compensating fixture for optical grating devices"
US Patent Serial Application US 20040156587 (2004)

1. J. Albert, T. Hilt, A. Fernie, and J. Dessureault,
"Compact athermal package for fiber Bragg gratings", November 2002, (French and US patent applications).

Presentations at refereed conferences

187. J. Albert, "'Nanoscale polymer and metal functional coatings improve detection limits in optical fiber sensors," Invited talk, 1st International Conference on Optics, Photonics, and Materials, Nice (France), October 26th – 28th 2016

186. J. Albert, "Recent advances in cladding mode-assisted resonant fiber optic sensors," Invited talk, 7th International Conference on Optical, Optoelectronic and Photonic Materials and Applications, Montreal, June 13th – 17th 2016

185. J. Albert, "Biochemical sensing using advanced metrology methods on an optical fiber surface," Invited talk, 6th European Workshop on Optical Fiber Sensors, Limerick (Ireland), 31st May – 3rd June 2016

184. S. A. Alqarni, H. Jean-Ruel, J. Albert, and C. Smelser, "Dual-Purpose Tilted Fiber Bragg Grating for Simultaneous Inducement of Localised Hyperthermia and Temperature Profiling", Photonics North, Quebec City, May 24th -26th 2016

183. D. Feng and J. Albert, "The effect of oriented-deposition gold coatings on the surface plasmon excitation by tilted fiber Bragg grating," Photonics North, Quebec City, May 24th -26th 2016

182. V. Marquez-Cruz and J. Albert, "Analysis of time-controlled electroless deposited gold films on TFBGs," Photonics North, Quebec City, May 24th -26th 2016

181. A. Van Newkirk, A. Velázquez-Benitez, E. Antonio-Lopez, J. Albert, R. Amezcua-Correa1, and A. Schülzgen, "3D Bending Sensor Combining Multicore Fiber with a Mode-Selective Photonic Lantern," Optical Society of America 4th Workshop on Specialty Optical fibers (WSOF'2015), paper WT4A.6, Hong Kong, (November 2015)

180. Y. Zhang, F. Wang, L. Song, M. Jakubinek, Y. Gu, B. Simard, and J. Albert, "Carbon nanotube modified optical fiber surface with novel coating method for non-linear and SPR application," Optical Society of America 4th Workshop on Specialty Optical fibers (WSOF'2015), paper WT4A.26, Hong Kong, (November 2015)
179. J. Albert "Lab-on-fiber Devices," Invited talk, Optical Society of America 4th Workshop on Specialty Optical fibers (WSOF'2015), paper WF4A.1, Hong Kong, (November 2015)
178. **D. Feng** and J. Albert "Compact vector bending sensor based on dual-titled fiber Bragg grating," oral paper 255-WG6C-113, Photonics North, Ottawa (June 2015)
177. J. Albert, "Biochemical Limits of Detection with Near Infrared Surface Waves on Optical Fibers," Invited talk, SES2B.2, OSA Topical meeting on Novel Optical Materials and Applications, Advanced Photonics Congress, Boston (July 2015)
176. **W. Zhou, D. Mandia**, S. Barry, and J. Albert "Monitoring of the Insulator-to-Metal Transition of Ultrathin Gold Coatings on Optical Fibers," oral paper NM4.C4, OSA Topical meeting on Novel Optical Materials and Applications, Advanced Photonics Congress, Boston (July 2015)
175. S. T. Barry, J. Albert, **D. J. Mandia, W. Zhou**, "Metallic Nanocoatings on Optical Fibers as a Sensor Platform," Annual meeting of the Canadian Society of Chemistry, Ottawa (June 2015)
174. J. Albert "Optical fibers, gratings, plasmons, and nanoparticles," Invited tutorial, IC-Impacts Summer Institute: Optical Sensing Technologies", University of Toronto, Toronto, ON, Canada. June 14-19, 2015.
173. **V. Marquez-Cruz** and J. Albert, "Analysis of the variables involved in near infrared TFBG-assisted SPR biochemical sensors," IC-Impacts Summer Institute: Optical Sensing Technologies", University of Toronto, Toronto (June 14-19, 2015)
172. **D. J. Mandia, W. Zhou**, J. Albert, S. T. Barry, Use of Dielectrics for Refractometric Sensivity Enhancement in Tilted Fiber Bragg Gratings. IC-Impacts Summer Institute: Optical Sensing Technologies", University of Toronto, Toronto (June 14-19, 2015)
171. J. Albert, A. Ianoul, and S. Barry, "Fiber grating biochemical sensors: Lowering detection limits with nanoscale plasmonic coatings," Invited talk, Annual meeting of the Canadian Society of Chemistry, Ottawa (June 2015)
170. **D. J. Mandia, W. Zhou**, J. J. Sims, J. B. Giorgi, M. J. Ward, H. Joress, J. Albert, S. T. Barry, "The Effect of ALD-grown Al_2O_3 on the Refractive Index Sensitivity of CVD Gold-coated Optical Fiber Sensors," 15th International Conference on Atomic Layer Deposition (AVS ALD 2015), Portland, Oregon, USA. (June 2015)

169. J. Albert and C. Caucheteur, "Surface Waves on Optical Fibers for Biochemical Sensing and Plasmonics," Invited tutorial, OSA Latin America Optics and Photonics Conference, Biophotonics and Biomedical Applications 2 (LTh3D) (Cancun 2014)
168. **D. J. Mandia, W. Zhou**, J. Albert, and S. T. Barry, "Optical Fiber-based Approach to In-situ Monitoring of Group 11 Metal-organic Chemical Vapor Deposition," paper Nano-160, 9th International conference on surfaces, coatings, and nanostructured materials (NANOSMAT) (Dublin 2014)
167. T. Guo, B. O. Guan, H. Y. Tam, and J. Albert, "Tilted fiber Bragg gratings as mechanical and biochemical sensors," **Invited paper** 9274-10, SPIE Proc. Advanced Sensor Systems and Applications IV, Photonics Asia (Beijing, 2014)
166. **D. Mandia, W. Zhou**, J. Albert, and S. Barry, "Optical Fiber-based Approach to In-situ Monitoring of Group 11 Metal-organic Chemical Vapor Deposition: Generation of Isotropic and Anisotropic Ultrathin Films," MRS Fall Meeting, paper OO7.03, Symposium OO: In Situ Characterization of Dynamic Processes during Materials Synthesis and Transformation (Boston, 2014)
165. N. Peyghambarian, K. Khanh, X. Zhu, A. Chavez, V. Temyanko, J. Nagel, A. Schulzgen, J. Albert, E. Dianov, M. M. Bubnov, M. E. Lkihachev, J. Dobler, "Functional glass and applications in fiber lasers and fiber optics," ECOC'2014, **Invited paper** Tu.1.4.6 (Cannes, September 2014)
164. C. Caucheteur, **V. Voisin**, J. Albert, and P. Berini, "Long-Range Surface Plasmon Polariton Excitation Using Tilted Fiber Bragg Gratings," OSA Topical meeting on Bragg gratings, Photosensitivity and Poling, BGPP'2014, paper SeM2C.2 (Barcelona, July 2014)
163. T. Guo, F. Liu, Y. Liu, N.-K. Chen, B.-O. Guan, and J. Albert, "Polarimetric fiber grating biosensor for in-situ high-sensitive intracellular density measurement," Proc. SPIE. 9157, 23rd International Conference on Optical Fibre Sensors, 915746. (June 02, 2014) doi: 10.1117/12.2058465
162. **A. Bialiyeu** and J. Albert, "Simple full-vectorial complex mode solver for waveguides with cylindrical or elliptical symmetry," Photonics North (Montreal 2014)
161. **D. J. Mandia, W. Zhou, M. J. Ward, H. Joress, M. B. E. Griffiths**, J. Albert, and S. T. Barry, "Chemical Vapor Deposition of Ultrathin Gold Films on Optical Fibers: Real-time Optical Monitoring of Film Growth by a Tilted Fiber Bragg Grating," Proc. SPIE 9288, Photonics North 2014, 92880M (September 25, 2014) doi:10.1117/12.2075136
160. **W. Zhou, D. J. Mandia, M. B. E. Griffiths**, S. T. Barry and J. Albert, "Anomalous refractive index of ultrathin gold nanoparticle film coated on tilted fiber

Bragg grating,” Proc. SPIE 9157, 23rd International Conference on Optical Fibre Sensors, 91573Y (June 2, 2014); doi:10.1117/12.2053091

159. F. Liu, T. Guo, L. Shang, Z. Zhang, F. Du, B.-O. Guan, and J. Albert, “Orientation-recognized rotation measurement using single polarimetric multi-mode tilted fiber grating,” paper 9157-87, Optical Fiber Sensors Conference (Santander, SPAIN, 2014)

158. J.-M. Renoirt, C. Caucheteur, M. Debliquy, J. Albert, and A. Ianoul, “Plasmon-enhanced tilted fibre Bragg gratings with oriented silver nanowire coatings”, paper 9126-129, SPIE Photonics Europe, Brussels (14-17 April 2014)

157. S. Barry, **M. Griffiths, D. Mandia, J. Coyle, P. Gordon, W. Zhou, L. Shao**, and J. Albert, "Chemical Vapour Deposition and Atomic Layer Deposition: Metals for Optical Fibres," Invited talk, Workshop on Specialty Optical Fibers and their Applications, (Optical Society of America, 2013), paper W4.3

156. J. Albert, A. Ianoul, S. T. Barry, and C. Caucheteur, “Optical excitation of metal nanoparticles by optical fiber cladding mode wavelength combs,” Invited paper CTh4H, CLEO: Science and Innovation (San Jose, June 2013)

155. T. Guo, Z. C. Zhang, F. Liu, X. Y. Zhu, Y. Liu, B. O. Guan, J. Albert, “Orthogonal-polarimetric differential tilted fiber grating biosensor,” Invited paper, 6th IEEE/International Conference on Advanced Infocomm Technology (ICAIT’2013), (Taiwan, July 2013)

155. A. Bialiyayeu, A. Ianoul, and J. Albert, “Engineering a resonant nanocoating for an optical refractive index sensor,” AIP Conf. Proc. 1590, 68 (2014) (London, ON, August 2013)

154. S. Lepinay and J. Albert, “A novel tilted fiber Bragg grating electronic-tongue elaborated from a molecular imprinted polymer,” 6th International Conference on Surface Plasmon Photonics (SPP6) (Ottawa, 26-31 May 2013)

153. A. Ianoul, A. Bottomley, A. Staff, D. Prezgot, S. Lepinay, and J. Albert, “Ensembles of plasmonic nanocrystals: design, properties and applications,” 6th International Conference on Surface Plasmon Photonics (SPP6) (Ottawa, 26-31 May 2013)

152. A. Bialiyayeu, W. Zhou, and J. Albert, “Polarization controlled scattering from gold nanoparticle coatings on optical fibers,” 6th International Conference on Surface Plasmon Photonics (SPP6) (Ottawa, 26-31 May 2013)

151. A. Staff, S. Lepinay, J. Albert, and A. Ianoul, “Controlling the Plasmonic Properties of Supported 2D Arrays of Gold Nanocages,” paper L9.52, MRS Spring Meeting (San Francisco, April 2013)

150. S Lepinay, A Staff, A Ianoul, J Albert, "Gold nanoparticles-enhanced refractrometry for the design of a tilted fiber Bragg grating biosensors," Paper JT2A.16, OSA Topical Meeting on Bio-Optics: Design and Application (BODA 2013) (Hawaii, 14 - 18 April 2013)
149. S. Lepinay, A. Staff, A. Ianoul, and J. Albert, "Gold nanoparticles for a sensitivity increase in biological sensors using a tilted fiber Bragg grating in reflection," Paper P86, 3rd International Conference on Bio-Sensing Technology (Sitges, Spain, 12-15 May 2013)
148. T. Guo, F. Liu, Y. Liu, N.K. Chen, B.O. Guan, J. Albert, "In vivo intracellular density detection of human acute leukemia cells with an evanescent tilted fiber grating biosensor," Paper P26, 3rd International Conference on Bio-Sensing Technology (Sitges, Spain, 12-15 May 2013)
147. A. Ianoul and J. Albert, "Supported plasmonic nanocrystals improve the performance of novel fiber-based sensors," Invited Paper 8623-54, Ultrafast Phenomena and Nanophotonics XVII, Photonics West (San Francisco, Feb. 2-7 2013)
146. T. Guo, J. Yi, L. Shang, F. Liu, B.-O. Guan, J. Albert, "A compact fiber-optic probe for two-dimensional vector vibration measurement," Paper C2P-N2, IEEE Sensors Conference (Taipei, Taiwan, Oct. 2012)
145. Y. Shevchenko, G. Camci-Unal, D. Cuttica, M. R. Dokmeci, J. Albert, and A. Khademhosseini, "Cellular Analysis Using Plasmonic Fiber Biosensor," IEEE-EMBS Micro and Nanotechnology in Medicine (Maui, USA) (2012)
144. L. Shao, M. Yin, H. Y. Tam, and J. Albert, "Fiber optic pH sensor with self-assembled multilayer nanocoatings on tilted FBG," International Conference on Optical Fiber Sensors (OFS-22), (Beijing, Oct. 2012)
143. Y. Zhang, T. Sun, L. Xiong, M. Z. Alam, and J. Albert, "Distributed transverse load sensing with tilted fiber Bragg gratings using optical frequency domain reflectometry," International Conference on Optical Fiber Sensors (OFS-22), (Beijing, Oct. 2012)
142. T. Guo, Y. Ran, Y. Tan, S. Gao, L. Sun, B.-O. Guan, and J. Albert, "Two-dimensional fiber-optic vector vibroscope using only one multi-mode tilted fiber grating," International Conference on Optical Fiber Sensors (OFS-22), (Beijing, Oct. 2012)
141. V. Voisin, C. Caucheteur, P. Mégret, and J. Albert, "Enhanced axial strain sensitivity in plasmonic tilted fiber Bragg gratings sensors," International Conference on Optical Fiber Sensors (OFS-22), (Beijing, Oct. 2012)

140. C. Caucheteur, V. Voisin, P. Mégret, J. Albert, “Polarization dependency of surface Plasmon resonance based tilted fiber Bragg gratings refractometers,” International Conference on Optical Fiber Sensors (OFS-22), (Beijing, Oct. 2012)
139. J. Albert, A. Ianoul, S. Barry, C. Caucheteur, and L.-Y. Shao, “Plasmonics on Fibers Coated with Metal Nanoparticles,” Invited talk, European Conference on Optical Communications (ECOC’2012), (Amsterdam, 16-20 September 2012)
138. J. Albert, K. Yadav, C. Callender, and C. Smelser, “Poled glass multilayers as a new kind of second order nonlinear optical material,” Invited Talk, Photonics North, paper OPTICS-6-13-1 (Montreal, June 6-8 2012)
137. J. Albert, C. Caucheteur, L. Shao, A. Ianoul, S. Barry, “Plasmons and Nanoparticle Coatings on Optical Fibers: Playing with Tilted Fiber Bragg Gratings,” Invited Talk, OSA Topical meeting on Bragg gratings, Photosensitivity and Poling, BGPP’2012, paper BTu2E.1 (Colorado Springs, USA, June 2012)
136. A. Bialiyayeu, A. Bottomley, D. Prezgot, A. Ianoul and J. Albert, “Silver Nanowire Coated Tilted Fibre Bragg Gratings,” OSA Topical meeting on Bragg gratings, Photosensitivity and Poling, BGPP’2012, paper BW2E.1 (Colorado Springs, USA, June 2012)
135. T. Sun, Y. Zhang, and J. Albert, “Transverse load tilted fiber Bragg grating sensor with variable sensitivity,” OSA Topical meeting on Bragg gratings, Photosensitivity and Poling, BGPP’2012, BTu2E.5 (Colorado Springs, USA, June 2012)
134. C. Caucheteur, V. Voisin, P. Mégret, and J. Albert, “Plasmonic biosensing platforms based on gold-coated tilted fiber Bragg gratings,” Biosensors 2012 (Cancun, Mexico, 15-18 May 2012)
133. C. L. Callender, P. Dumais, C. Blanchetiere, S. Jacob, C. J. Ledderhof, C. W. Smelser, K. Yadav, and J. Albert, “Compact silica-on-silicon planar lightwave circuits for high speed optical signal processing,” Optical Components and Materials IX, Photonics West (San Jose, California, January 2012), Proc. SPIE Vol. 8257, paper 8257-31 (2012)
132. T. Guo, B. Guan, Y. Y. Shevchenko, and J. Albert, “Optical-fiber biosensors using plasmons excited tilted fiber gratings,” Third Asia Pacific Optical Sensors Conference. Edited by Canning, John; Peng, Gangding. Proc. SPIE, Vol. 8351, pp. 83512U-83512U-6 (2012).
131. L.-Y. Shao, M. B. Jakubinek, T. Sun, B. Simard, and J. Albert, “Four-wave mixing generation in carbon nanotube-coated optical fiber grating,” oral paper WU2, IEEE Photonic Society Annual meeting (Washington, October 2011)

130. C. Caucheteur, C. Chen, V. Voisin, P. Berini, J. Albert, "Refractometric mode splitting in metal coated optical fibers," oral paper ThG3, IEEE Photonic Society Annual meeting (Washington, October 2011)
129. A. Beliaev, C. Caucheteur, N. Ahamad, A. Ianoul and J. Albert, "Self-optimized Metal Coatings for Fiber Plasmonics by Electroless Deposition," oral paper STuA3, OSA Topical Meeting on Optical Sensors (Toronto, June 2011)
128. **V. Voisin, C. Caucheteur, P. Mégret, J. Albert**, "Interrogation of gold-coated TFBG-SPR refractometers based on differential orthogonal light states," oral paper SMB4, OSA Topical Meeting on Optical Sensors (Toronto, June 2011)
127. **G. E. Villanueva-Ibáñez, M. Jakubinek, M. Z. Alam, B. Simard, and J. Albert**, "Optical properties of a wrapped carbon nanotube layer on optical fiber," paper 255-FVWv-101, Photonics North (Ottawa, May 2011)
126. **G. E. Villanueva, M. B. Jakubinek, B. Simard, C. J. Otón, P. Pérez-Millán and J. Albert**, "Tilted Fiber Bragg Grating Assisted Nonlinear Effects in Carbon Nanotubes Coated Optical Fibers," paper CD1.2, CLEO-Europe (Munich, May 2011)
125. **Li-Yang Shao, Jason Coyle, Sean Barry, and Jacques Albert**, "Plasmonic Properties of Copper Nanoparticles Deposited on Tilted Fiber Bragg Gratings," paper CH2.3, CLEO-Europe (Munich, May 2011)
126. T. Guo, H.-Y. Tam, J. Albert, "Chirped and tilted fiber Bragg grating edge filter for in-fiber sensor interrogation," oral paper CThL3, CLEO, (Baltimore, May 2011)
125. T. Guo, Y. Huang, B. Guan, C. Lu, H.-Y. Tam, J. Albert, "VCSEL-based tilted fiber grating vibration sensing system," oral paper CThL6, CLEO, (Baltimore, May 2011)
124. **L. Xiong, P. Hofmann, A. Schülzgen, N. Peyghambarian, J. Albert**, "Short Dual-wavelength DBR Phosphate Fiber Laser," oral paper CTuI3, CLEO, (Baltimore, May 2011)
123. **K. Yadav, C. W. Smelser, S. Jacob, C. Blanchetiere, C. L. Callender, and J. Albert**, "Second-Order Nonlinearity Distribution in a Doped Silica Glass Multilayered Structure," oral paper CTuL6, CLEO, (Baltimore, May 2011)
122. T. Guo, H.-Y. Tam, J. Albert, "Linearly chirped and weakly tilted fiber Bragg grating edge filters for in-fiber sensor interrogation," SPIE Proceedings Vol. 7753, paper 7753-143, International Conference on Optical Fiber Sensors (OFS-21), (Ottawa, May 2011)
121. **L.Y. Shao and J. Albert**, "Transverse load sensing with a tilted fiber Bragg grating compressed between conforming elastomers," SPIE Proceedings Vol. 7753, paper 7753-06, International Conference on Optical Fiber Sensors (OFS-21), (Ottawa, May 2011)

120. **C. Caucheteur, Y.Y. Shevchenko, L.Y. Shao**, P. Mégret, and J. Albert, "Demodulation technique for plasmonic fiber grating sensors using orthogonally polarized light states," SPIE Proceedings Vol. 7753, paper 7753-354, International Conference on Optical Fiber Sensors (OFS-21), (Ottawa, May 2011)
119. **P. Hofmann**, A. Chavez-Pirson, A. Schülzgen, **L. Xiong**, A. Laronche, J. Albert, N. Peyghambarian, "Low-noise single frequency all phosphate fiber laser," paper 8039-35, SPIE Defense, Security and Sensing: Laser Technology for Defense and Security VII conference (Orlando, April 2011)
118. J. Albert, **C. Caucheteur, and L. Shao**, "Polarization properties of tilted fiber Bragg gratings for novel sensing modalities," Invited talk 8028-1, SPIE Defense, Security and Sensing: Fiber Optic Sensors and Applications VIII conference (Orlando, April 2011)
117. **Lingyun Xiong, Peter Hofmann**, Axel Schülzgen, Nasser Peyghambarian, and Jacques Albert, "A Monolithic Single-frequency Distributed Feedback Phosphate Fiber Laser," Photonics North (Ottawa, May 2011)
116. A. Schülzgen, **P. Hofmann**, L. Li, N. Peyghambarian, **L. Xiong, A. Laronche**, and J. Albert, "Distributed Feedback Lasers in Phosphate Glass Active Fiber," Invited talk FThA5, OSA Topical Meeting on Fiber Laser Applications (FILAS), (Istanbul, Turkey, February 2011)
115. **Yanina Shevchenko, Tariq Francis**, Maria C. DeRosa, and Jacques Albert, "Surface Plasmon Resonance optical fiber biosensor for label-free characterization of biomolecular interactions," Paper BMC2, OSA Topical meeting on Bio-Optics: Design and Application (BODA) (Monterey CA, April 2011)
114. **M. Li, L. Shao**, J. Albert, J. Yao, "Chirped Microwave Pulse Generation Using a Tilted Fiber Bragg Grating", paper ThE-5 IEEE, Photonics Society Annual Meeting, November 2010, Denver CO
113. L. Shao, Y. Shevchenko, and J. Albert, "Temperature cross-sensitivity of tilted fiber Bragg grating surface plasmon sensors", paper PLAS-3-3-3, Photonics North, Niagara Falls (2010)
112. J. Albert, "Grating-assisted optical fiber SPR sensor with self-referencing capability," *Invited Talk*, 37th Annual meeting of the Federation of Analytical Chemistry and Spectroscopy Societies, Raleigh (USA) October 17-21, 2010
111. J. Albert, "New Developments in Tilted Bragg Gratings for Biochemical and Structural Sensing," *Invited Talk*, OSA Topical Meeting on Bragg Gratings, Photosensitivity and Poling, Karlsruhe (Germany) June 21-24 2010, paper BThC1
110. L. Xiong, P. Hofmann, A. Schülzgen, N. Peyghambarian, and J. Albert, "Photo-thermal Growth of Unsaturated and Saturated Bragg Gratings in Phosphate Glass Fibers,"

OSA Topical Meeting on Bragg Gratings, Photosensitivity and Poling, Karlsruhe (Germany) June 21-24 2010, paper BTuB1

109. K. Yadav, C. W. Smelser, S. Jacob, C. Blanchetiere , C. L. Callender , and J. Albert, “Enhanced Second-Order Nonlinearities in Multilayers of Nanoscale Doped Silica Thin Films,” OSA Topical Meeting on Bragg Gratings, Photosensitivity and Poling, Karlsruhe (Germany) June 21-24 2010, paper BTuB6

108. A. Beliaev, G. Galway, A. Ianoul and J. Albert, “In situ Monitoring of the Deposition of Nanometer-scale Gold and Silver Films on Optical Fibers,” OSA Topical Meeting on Sensors, Karlsruhe (Germany) June 21-24 2010, paper STuA3

107. L. Shao and J. Albert, “Novel fiber optical inclinometer based on a concatenated fused taper and tilted fiber Bragg grating,” CLEO/QELS, May 16-21 2010 (San Jose, CA), paper CFH3

106. J. Albert, “Plasmons sur fibre optique : conception, réalisation, et applications,” *Invited Talk*, 9^{ième} Colloque Optique Guidée et Photonique, Conférence annuelle de l’Association Canadienne-Francaise pour l’Avancement des Sciences (ACFAS), May 10-12 2010 (Montréal)

105. Y. Shevchenko, T. Francis, M.C. DeRosa, and J. Albert, “Optical properties of a tilted fiber Bragg grating surface plasmon resonance sensor for biosensing,” EUROPTRODE X, Prague (Czech Republic), March 28-31 2010, paper P157

104. Y. Shevchenko, M. Dakka, N. U. Ahamad, G. Galway, A. Ianoul, and J. Albert, “High resolution SPR fiber sensing platform for in situ characterization of the deposition of nanoscale thickness polymer films,” paper 7559-21 in *Optical Fibers and Sensors for Medical Diagnostics and Treatment Applications X*, (SPIE Proc. vol. 7559), Photonics West, San Francisco (2010)

103. Y. Shevchenko, T. Francis, M. Dakka, M. DeRosa, and J. Albert, “Miniature Surface Plasmon Resonance fiber biosensor for in vitro diagnostics,” paper 7577-16 in *Plasmonics in Biology and Medicine VII* (SPIE Proc. vol. 7577), Photonics West, San Francisco (2010)

102. J. Albert, M. Derosa, A. Ianoul, **Y. Shevchenko, A. Beliaev, D. A. D. Blair, N. Ahamad**, “Plasmonics on Optical Fibers: New Tools for Biochemical Sensing,” Invited talk, in *Frontiers in Optics*, OSA Technical Digest (CD) (Optical Society of America, 2009), paper FWT1.

101. C. Caucheteur, M. Wuilpart, P. Mégret and J. Albert, “Multi-point refractometry using tilted fiber Bragg gratings interrogated by a time-domain technique,” Optical Fiber Sensors Conference (OFS-20), Edimburgh, UK, October 2009

100. **Y. Shevchenko, N. U. Ahamad, G. Galway, A. Ianoul** and J. Albert,

“Surface plasmon resonance fiber sensor for in situ monitoring of the deposition of nm-scale polymer films,” Optical Fiber Sensors Conference (OFS-20), Edinburgh, UK, October 2009

99. T. Guo, L. Shao, H. Au, H.-Y. Tam, and J. Albert, “Tilted fiber Bragg fiber grating-based accelerometer,” Optical Fiber Sensors Conference (OFS-20), Edinburgh, UK, October 2009

98. **F. Gorlier**, C. Caucheteur, M. Wuilpart, P. Mégret, and J. Albert, “Polarization properties of fiber cladding modes near cut-off with applications to refractometry,” Optical Fiber Sensors Conference (OFS-20), Edinburgh, UK, October 2009

97. P. Cheben, J. H. Schmid, M. Florjańczyk, P. J. Bock, D. X. Xu, S. Janz, A. Delâge, J. Lapointe, B. Lamontagne, E. Post, A. Densmore, J. Albert, T. J. Hall, B. Solheim, A. Scott, “Recent Progress in Planar Waveguide Spectrometers”, Invited talk IMD4, OSA Conference on Integrated Photonics and Nanophotonics Research and Applications, Honolulu, Hawaii, July 2009

96. Y. Shevchenko, D. A. D. Blair, T. Francis, M. DeRosa, N. U. Ahamad, G. Galway, A. Ianoul, and J. Albert, “Surface Plasmon Resonance optical fiber sensor for monitoring biochemical processes at the nanoscale,” paper PLASMON-26-1-3, Photonics North 2009 (Quebec City)

95. **Yanina Shevchenko, Chengkun Chen, David A.D. Blair, Tariq Francis**, Maria DeRosa, **Nur U. Ahamad**, Graham Galway, Anatoli Ianoul and Jacques Albert, “Surface Plasmon Resonance fiber sensor for detection of biological targets and in situ monitoring of polyelectrolyte multi-layer deposition,” Nanotech 2009 Conference and Expo (Houston TX, May 3-7 2009)

94. A. Schulzgen, **L. Li, X. Zhu**, J. Albert, N. Peyghambarian, “Recent Advances in Phosphate Glass Fiber Lasers,” *Invited talk* CThN3, CLEO/QELS 2009 (Baltimore, MD)

93. T. Guo, H.-Y. Tam, J. Albert, “Optical Fiber Refractometer with Improved Sensitivity Based on an Offset Tilted Fiber Bragg Grating,” paper JWA69, CLEO/QELS 2009 (Baltimore, MD)

92. P. A. Krug, R. M. Rogojan, J. Albert, “Directly Photoinscribed Thick Bragg Gratings in Ohara WMS-15 Glass-Ceramic,” paper JTuD24, CLEO/QELS 2009 (Baltimore, MD)

91. C. Caucheteur, M. Wuilpart, C. Chen, P. Mégret and J. Albert, “Multi-Point In-Line Refractometry Using Tilted Fiber Bragg Gratings,” IEEE/LEOS Winter Topical Meetings Series, Pages 75-76 (12-14 Jan. 2009)

90. **Y. Y. Shevchenko, D. A. D. Blair, N. U. Ahamad**, A. Ianoul, M. C. DeRosa and J. Albert, “Miniature Bio-Chemical Surface Plasmon Resonance sensor on standard optical

fibers,” Oral presentation AA2.3, Materials Research Society Fall Meeting, Boston, December 2008.

89. C. Caucheteur, **S. Bette, C. Chen**, M. Wuilpart, P. Mégret, J. Albert, “Refractometer based on polarization dependent loss measurement of weakly tilted fiber Bragg gratings,” 14th Microoptics Conference (MOC08), Brussels, Sept. 2008

88. **A. Andreyuk, R. M. Rogojan**, J. Albert, and S. Honkanen, “Characterization of the thermal growth of silver nanoclusters in phosphate glass,” SPIE Proceedings, Photonics North 2008, Montreal.

87. **Y. Y. Shevchenko, D. A. D. Blair**, M. C. Derosa, and J. Albert, “Optimization of Tilted Fiber Bragg Grating surface plasmon resonance sensor for DNA biosensing in aqueous solutions,” SPIE Proceedings, Photonics North 2008, Montreal.

86. **L. Li**, A. Schülzgen, V. L. Temyanko, Ch. Spiegelberg, D. T. Nguyen, X. Zhu, J. V. Moloney, J. Albert, and N. Peyghambarian, “Cladding-Pumped Distributed Feedback Phosphate Glass Fiber Lasers,” oral presentation CMA1, CLEO/QELS 2008 (San Jose, CA)

85. **Y. Y. Shevchenko, D. A. D. Blair**, M. C. Derosa, and J. Albert, “DNA Target Detection Using Gold-coated Tilted Fiber Bragg Gratings in Aqueous Media,” oral presentation CMJ4, CLEO/QELS 2008 (San Jose, CA)

84. C. Caucheteur, **C. Chen**, J. Albert, and P. Mégret, “Weakly tilted fiber Bragg gratings for sensing purposes,” Invited talk, Photonics Europe, paper 7003-06, (April 2008, Strasbourg, France)

83. **C. Chen, Y. Y. Shevchenko**, and J. Albert, “Novel sensing mechanisms using tilted fiber Bragg gratings,” Invited talk, in *Optical Waveguide Sensing and Imaging* (Proceedings of the NATO Advanced Study Institute on Optical Waveguide Sensing and Imaging in Medicine, Environment, Security and Defence, Gatineau, Québec, Canada, October 2006), W. J. Bock, I. Gannot, and S. Tanev (Eds.), pp.25-49 (Springer 2008)

82. N. Peyghambarian, A. Schülzgen, X. Zhu, S. Suzuki, L. Li, V. L. Temyanko, J. Albert, S. Jiang, and Ch. Spiegelberg, “Compact Phosphate Glass Fiber Lasers,” Photonics and Opto-Electronics Meeting POEM 2008 (Invited), Wuhan (China) 2008

81. **C. Chen, T. Guo**, A. Laronche and J. Albert, “Radiation mode resonances of tilted fiber Bragg gratings for high index media measurement,” SPIE Proc. vol. 7004 paper no. 53, Optical Fiber Sensors Conference (OFS-19), Perth (Australia), April 2008

80. **C. Chen**, A. Laronche, G. Bouwmans, L. Bigot, Y. Quiquempois and J. Albert, “The inner cladding mode in a photonic crystal fiber for temperature- and refractive index-independent strain sensing applications,” SPIE Proc. vol. 7004 paper no. 208, Optical Fiber Sensors Conference (OFS-19), Perth (Australia), April 2008

79. **T. Guo**, J. Albert, **C. Chen**, **A. Ivanov**, and A. Laronche, “Highly accurate micro-displacement measurement based on Gaussian-chirped tilted fiber Bragg grating,” SPIE Proc. vol. 7004 paper no. 52, Optical Fiber Sensors Conference (OFS-19), Perth (Australia), April 2008
78. A. Schülzgen, **S. Suzuki**, **L. Li**, **R. Matei Rogoian**, J. Albert, and N. Peyghambarian, “UV-Written Grating Structures and Single-Frequency Lasers in Phosphate Glass Fiber,” Invited talk, American Ceramics Society, Glass and Optical Materials Division, Spring Meeting 2008 Tucson (USA) 2008
77. A. Schülzgen, **L. Li**, **X. Zhu**, **S. Suzuki**, V. L. Temyanko, J. Albert, and N. Peyghambarian, “Microstructured Soft Glass Fibers for Advanced Fiber Lasers,” Invited talk, Materials Research Society 2008 Spring Meeting (San Francisco, March 24-28, 2008), Symposium K, paper 2071
76. A. Schülzgen, **L. Li**, **S. Suzuki**, V. L. Temyanko, **X. Zhu**, S. Jiang, Ch. Spiegelberg, **R. Matei Rogoian**, J. Albert, and N. Peyghambarian, “Recent Advances in Phosphate Glass Fiber and Its Application to Compact High Power Fiber Lasers,” Invited talk, Fiber Lasers V: Technology, Systems, and Applications, Photonics West, San Jose (19-24 Jan. 2008)
75. S. Honkanen, A. Schulzgen, J. Albert, “Photosensitivity in phosphate glasses and its use for integrated optic and fiber lasers,” Invited talk, Optoelectronic Integrated Circuits XII, Photonics West, San Jose (19-24 Jan. 2008)
74. A. Ivanov and J. Albert, “Tilted fiber Bragg gratings stubs for vibration and bend sensing,” Proceedings of the OSA Topical Meeting on Bragg Gratings, Photosensitivity and Poling in glass waveguides, paper JWA49 (Quebec City, Sept. 2-5, 2007)
73. **R. M. Rogoian**, A. Schülzgen, N. Peyghambarian, A. Laronche and J. Albert, “Photo-thermal gratings in $\text{Er}^{3+}/\text{Yb}^{3+}$ -doped core phosphate glass single mode fibers,” Proceedings of the OSA Topical Meeting on Bragg Gratings, Photosensitivity and Poling in glass waveguides, paper BtuC3 (Quebec City, Sept. 2-5, 2007)
72. X. Dai, S. J. Mihailov, R. B. Walker, **C. Chen**, and J. Albert, “Design of high sensitivity refractometer based on temperature independent TE and TM modes in open top ridge waveguides,” Fiber Optic Sensors and Applications V, Proc. SPIE Vol. 6770, paper 6770-0B (2007)
71. **A. Ivanov** and J. Albert, “Bent tilted fiber Bragg gratings for temperature-independent vibration sensing in vehicles,” Photonics in the Transportation Industry: Auto to Aerospace, Proc. SPIE Vol. 6758, paper 6758-03(2007).
70. N. Peyghambarian, L. Li, V. L. Temyanko, H. Li, J. V. Moloney, P. Polynkin, J. Albert, and A. Schülzgen, “Short-Length, High-Power Multi-Core Coherently Coupled

Fiber Lasers,” Invited talk, Frontiers in Optics (FiO) 2007, paper: FWB1, OSA Technical Digest (2007)

69. W. Wang, G. Xiao and J. Albert, “Temperature Tuned AWG Wavelength Interrogation for TFBG,” 10th Cansmart 2007 International workshop on smart materials and structures (Montreal, Oct.10-11, 2007).

68. S. Honkanen, **S. Yliniemi**, and J. Albert, “Studies on Passive and Active Silver-Sodium Ion-Exchanged Glass Waveguides and Devices,” Invited talk, European Materials Research Society Fall Meeting, Symposium, Warsaw, Poland, Sept. 17-21, 2007

67. S. Honkanen, **S. Yliniemi**, and J. Albert, ”Photosensitivity and glass waveguide lasers in phosphate glass,” Invited talk, 7th Finnish-Japanese Joint Symposium on Optics in Engineering, Tampere, Finland, Aug. 8-10, 2007

66. P. Cheben, J. H. Schmid, P. Waldron, A. Del ge, A. Densmore, S. Janz, B. Lamontagne, J. Lapointe, E. Post, D.-X. Xu, W.N. Ye, and J. Albert, “Integrated optical spectrometer design in the high-index contrast silicon-on-insulator waveguide platform,” Canadian Semiconductor Technology conference (Montreal, August 2007)

65. **Y. Shevchenko**, A. Ianoul, **C. Chen**, and J. Albert, “Realization of Surface Plasmon Resonance Sensors in Standard Optical Fibers,” Photonics North, Ottawa (June 2007)

64. **D. Celo**, D. J. Walkey, T. J. Smy, and J. Albert, “First order optimization technique for interferometric optical waveguide sensors,” Photonics North, Ottawa (June 2007)

63. **C. Chen** and J. Albert, “Hybrid Modes Analysis for Cladding Mode Resonance Peaks in Tilted Fiber Bragg Gratings,” Photonics North, Ottawa (June 2007)

62. **C. Chen** and J. Albert, “Analysis of Plasmon-Like Modes in Optical Fiber with a Nano-Size Gold Overlay for Biochemical Sensor Applications,” OSA Topical conference on Nanophotonics, Hangzhou (CHINA), (June 2007)

61. **Chun-Fan Chan**, Graham A. Ferrier, Douglas J. Thomson, **Chengkun Chen**, Jacques Albert, Paul Lefebvre, and Andre Vincelette, “Side-polished and tilted fiber Bragg grating sensors for structural health monitoring applications,” paper 6530-14, 14th International SPIE Symposium on Smart Structures and Materials & Nondestructive Evaluation and Health Monitoring, San Diego (March 2007)

60. **S. Yliniemi**, J. Albert, and S. Honkanen, “A study of silver-film ion-exchanged glass waveguides in phosphate glass,” Proc. SPIE **6469**, 6469-0Y (2007) Photonics West, San Jose (Jan. 2007)

59. N. Mrad, **A. Ivanov**, J. Albert, and G. Z. Xiao, “Characterization of Fiber Bragg Gratings for Multi-Parameters Sensing,” paper 6529-27, 14th International SPIE

Symposium on Smart Structures and Materials & Nondestructive Evaluation and Health Monitoring, San Diego (March 2007)

58. **C. Caucheteur, C. Chen**, J. Albert, and P. Mégret, "Use of weakly tilted fiber Bragg gratings for strain sensing purposes," Proc. of the IEEE-LEOS Benelux Chapter, Eindhoven (Netherlands) p.61-64 (2006)
57. **S. Yliniemi**, J. Albert, **A. Laronche, Q. Wang**, and S. Honkanen, "Silver film ion-exchanged Er-doped waveguide lasers and photowritten waveguide gratings in phosphate glass," in *Integrated Optics, Silicon Photonics, and Photonic Integrated Circuits*, edited by Giancarlo C. Righini, Proc. of SPIE Vol. 6183, 61830M, (2006)
56. **C. Chen, C. Caucheteur**, P. Mégret, and J. Albert, "Sensitivity of Tilted Fiber Bragg Grating Sensors with Different Cladding Thicknesses," 18th Conference on Optical Fiber Sensors (OFS-18), paper TuE31 (Oct. 2006).
55. **C. Caucheteur, C. Chen**, J. Albert, and P. Mégret, "Utilisation des réseaux de Bragg fibrés faiblement inclinés des fins de capteurs multiparamétriques," Journées Nationales d'Optique Guidée, JNOG 2006 (Metz, France, 2006)
54. **C. Chen, L. Xiong, C. Caucheteur**, P. Mégret, and J. Albert, "Differential Strain Sensitivity of Higher Order Cladding Modes in Weakly Tilted Fiber Bragg Gratings," SPIE Proc. Vol. 6379, Photonics in Automotive and Transportation, paper 6379-B11 (2006)
53. **A. Andreyuk**, A. Steele, and J. Albert, "Modal Dispersion Properties of LPG-assisted Coupling Between Single-mode and Multimode Channel Waveguides", *Frontiers in Optics '05* (Optical Society of America), paper JtuC37, Tucson Arizona (2005)
52. **C. Chen** and J. Albert, "Photo-Induced Signal Taps for Power Monitors in Planar Lightwave Circuits," in *Photonic Applications in Devices and Communication Systems*, edited by Peter Mascher, Andrew P. Knights, John C. Cartledge, David V. Plant, Proc. of SPIE Vol. 5970, 59700I, (2005)
51. **C. Chen, L. Xiong, A. Jafari**, and J. Albert, "Differential sensitivity characteristics of tilted fiber Bragg grating sensors", in *Fiber Optic Sensor Technology and Applications IV* edited by Michael A. Marcus, Brian Culshaw, John P. Dakin, Proc. of SPIE Vol. 6004, 60040B, (2005)
50. J. Albert, **S. Yliniemi**, S. Honkanen, **A. Andreyuk**, and A. Steele, "UV-written Bragg gratings in silver ion-exchanged phosphate glass channel waveguides.", *Proceedings of the 2005 Topical meeting on Bragg Gratings, Photosensitivity and Poling*, B. Eggleton (ed.), (Tourhosts, Sydney), pp.402-404 (2005)

49. J. Albert, "Photosensitive mechanisms and devices in doped silica glasses: recent progress." Invited Talk, Fall Meeting of the Glass and Optical Material Division, American Ceramic Society, Cocoa Beach Florida, paper GOMD-S2-107 (2004)
48. J. Albert, M. Fokine, and W. Margulis
"Grating formation in pure silica fibers"
Proceedings of the 2001 OSA Topical Meeting on Bragg gratings, Photosensitivity and Poling in Glass waveguides, paper BThC9 (2001)
47. Y. Hibino, M. Abe, T. Tanaka, A. Himeno, A. Sugita, J. Albert, D. C. Johnson, and K. O. Hill
"Temperature-insensitive UV-induced Bragg gratings in silica-based PLCs on Si"
Proceedings of Post-deadline papers, European Conference on Optical Communications, ECOC'99, Nice FRANCE, paper PD1-5, pp.10-11 (1999)
46. S. H. Moffat, S. J. Mihailov, J. Albert, F. Bilodeau, K. O. Hill, D. C. Johnson, and D. Grobnc
"Influence of fringeless UV post-exposure on index modulation amplitude in fiber Bragg gratings"
Post-deadline paper PD-5, Proceedings of the 1999 OSA Topical Meeting on Photosensitivity, Bragg gratings, and Poling in Glass fibers and waveguides, pp.24-26 (1999)
45. J. Albert, F. Bilodeau, K. O. Hill, D. C. Johnson, S. J. Mihailov, Y. Hibino, and M. Abe
"Birefringence control for ultraviolet-induced index change in Planar Lightwave Circuits"
Proceedings of the 1999 OSA Topical Meeting on Photosensitivity, Bragg gratings, and Poling in Glass fibers and waveguides, pp.24-26 (1999)
44. S. Thériault, K. O. Hill, D. C. Johnson, J. Albert, F. Bilodeau, G. Drouin, and A. Béliveau
"High-g accelerometer based on in-fiber Bragg grating: a novel detection scheme"
International Conference on Applications of Photonic technology (ICAPT 3), SPIE Proc. Vol. 3491, 926-930 (1998)
43. A. Tchegotareva, J. L. Brebner, S. Roorda, and J. Albert
"Proton implantation in the core of standard single-mode optical fiber: effect on the photosensitivity to ultraviolet light"
11th International Conference on Ion Beam modification of materials, August 31 to September 4 1998, Amsterdam NL, Poster session 3.2 (1998)
42. S. J. Mihailov, F. Bilodeau, K. O. Hill, D. C. Johnson, J. Albert, and D. Stryckman
"Comparison of fibre Bragg grating dispersion-compensators made with holographic and E-beam written phase masks"

European Conference on Optical Communications (ECOC'98), September 20-24, Madrid, Spain (1998)

41. M. Verhaegen, J. L. Brebner, and J. Albert

“UV-light bleaching and thermal annealing of ion implanted silica. Changes in color center populations and displacement of the optical absorption edge”
Materials Research Society Fall meeting, Boston, Dec. 1-5 (1997)

40. M. Verhaegen, J. L. Brebner, and J. Albert

“Large refractive index changes observed in silicon implanted silica exposed to high cumulative doses of ArF light”
OSA Topical Meeting on Photosensitivity, Bragg gratings, and Poling in Glass fibers and waveguides, Williamsburg VA, Oct. 25-28 (1997)

39. J. Albert, F. Bilodeau, D. C. Johnson, K. O. Hill, S. Mihailov, D. Stryckman, T. Kitagawa, and Y. Hibino

“Polarization-independent strong Bragg gratings in Planar Lightwave Circuits from ArF laser irradiation”
OSA Topical Meeting on Photosensitivity, Bragg gratings, and Poling in Glass fibers and waveguides, Williamsburg VA, Oct. 25-28 (1997)

38. M. Essid, J. L. Brebner, K. Awazu, and J. Albert

“Ion implantation induced photosensitivity in Ge-doped silica: Effects of induced defects on refractive index changes”
9th International conference on Radiation Effects in Insulators, Knoxville TN, Sept. 14-19 (1997)

37. Mourad Essid, John L. Brebner and Jacques Albert

“Refractive index change in Ge-doped silica waveguide after high energy ion implantation and UV irradiation”
APS 1997 March Meeting, Kansas City MO March 17-21 (1997)

36. Sjoerd Roorda, Anna Tchegotareva, Jacques Albert, and John Brebner

“Modification of the core of Ge doped optical fibres by proton ion implantation”
APS 1997 March Meeting, Kansas City MO March 17-21 (1997)

35. J. Brebner, L. B. Allard, M. Verhaegen, M. Essid, J. Albert, P. Simpson, and A. Knights

“Modification of the properties of silica glasses by ion implantation”
Photonics West '97, SPIE Conference on Integrated Optoelectronics, San Jose (1997)

34. H. Takahashi, T. Tanaka, M. Oguma, T. Hashimoto, Y. Hibino, Y. Yamada, Y. Itaya, J. Albert, and K. O. Hill

“An integrated external cavity laser composed of a UV written grating in a silica waveguide and a spot-size converted laser diode on Si”

Proceedings of the OSA Topical Meeting on Integrated Photonics Research '96, Boston, Post-deadline paper PD-1 (1996)

33. L. B. Allard, S. Roorda, A. Ait-Ouali, J. L. Brebner, and J. Albert

“Optical properties of proton implanted Ge-doped optical fibres”

Ion Beam Modification of Materials (IBMM'96), Albuquerque NM (1996)

32. S. Thériault, K. O. Hill, F. Bilodeau, D. C. Johnson, J. Albert, G. Drouin, and A. Béliveau

“High-g accelerometer based on an in-fiber Bragg grating sensor”

Eleventh Optical Fiber Sensors Conference, Sapporo JAPAN (1996)

31. F. Bilodeau, K. O. Hill, S. Thériault, B. Malo, J. Albert, and D. C. Johnson

“A broadband wavelength-selective tap using an all-fiber Mach-Zehnder interferometer and chirped photoinduced Bragg gratings”

Technical Digest, Optical Fiber Communications '96, paper WF5, pp.119-120, San Jose (1996)

30. S. Thériault, F. Bilodeau, B. Malo, D. C. Johnson, J. Albert, K. O. Hill, and L. E. Erickson

“Effect of phase mask stitching errors on the spectral response of uniform and apodized fiber Bragg grating”

Proceedings of the 1995 IEEE Lasers and Electro-Optics Society Annual meeting, San Francisco, Vol. 2, 77-78 (1995)

29. J. Albert

“Photosensitive processes in silica glass using 193 nm light”

Invited paper

OSA Technical Digest Series Volume 22, Photosensitivity and quadratic nonlinearity in glass waveguides: Fundamentals and applications, pp.229-231 Optical Society of America, Washington (1995)

28. K. O. Hill, F. Bilodeau, B. Malo, S. Thériault, T. Kitagawa, H. Takahashi, D. C. Johnson, and J. Albert

“Photosensitivity and its applications”

Proceedings of the 10th International Conference on Optics and Optical Fiber Communications (IOOC'95), Hong-Kong, June 1995

27. M. Essid, M. Verhaegen, L. B. Allard, J. L. Brebner, and J. Albert

“Ion implantation induced photosensitivity in silica and Ge-doped silica”

Proceedings of the Topical Meeting on Photosensitivity and quadratic nonlinearity in glass waveguides: Fundamentals and applications, pp.152-155 (1995)

26. M. Verhaegen, L. B. Allard, J. L. Brebner, M. Essid, S. Roorda, and J. Albert

“Photorefractive waveguides produced by ion implantation of fused silica”

9th International Conference on Ion Beam Modification of Materials, Canberra (Australia) (1995)

25. L. E. Erickson, H. G. Champion, J. Albert, K. O. Hill, B. Malo, S. Thériault, F. Bilodeau, and D. C. Johnson

“Fabrication of a variable diffraction efficiency phase mask by multiple dose ion implantation”

39th International Conference of Electron, Ion, and Photon Beam Technology and Nanofabrication, Scottsdale AZ, May 30-June 2 (1995)

24. F. Bilodeau, B. Malo, D. C. Johnson, J. Albert, S. Thériault, and K. O. Hill

“High performance wavelength division multiplexing/demultiplexing device using an all-fiber Mach-Zehnder interferometer and photoinduced Bragg gratings”

Proceedings of the 1995 Optical Fiber Communications conference (OFC'95), San Jose (California) (1995)

23. B. Malo, K. O. Hill, S. Thériault, F. Bilodeau, T. Kitagawa, D. C. Johnson, J. Albert, K. Takiguchi, T. Kataoka, and K. Hagimoto

“Dispersion compensation of a 100 km, 10 Gb/s optical fiber link using a chirped in-fiber Bragg grating compensator with a linear dispersion characteristic”

Proceedings of the 1994 European Conference on Optical Communications (ECOC'94), Firenze (Italy), Vol. 4 Post-deadline papers, pp.23-26 (1994)

22. K. O. Hill, T. Kitagawa, S. Thériault, F. Bilodeau, D. C. Johnson, B. Malo, and J. Albert

“Novel applications of photosensitivity in Ge-doped silica: Bragg grating matched filtering for optical fiber dispersion compensation and multilayer optical storage medium”

Technical digest of the 1994 IEEE/LEOS Annual meeting, Boston (1994)

21. K. O. Hill, F. Bilodeau, B. Malo, S. Thériault, D. C. Johnson, J. Albert, and T. Kitagawa

“Characterization of In-fiber Bragg Gratings”

Technical Digest of the 1994 Symposium on Optical Fiber measurements, Boulder, September (1994)

20. M. Verhaegen, J. L. Brebner, and J. Albert

“Potential applications of implanted fused silica as a photosensitive material for planar lightwave circuits”

International conference on applications of photonic technology (ICAPT'94), Toronto, June 1994

Applications of Photonic Technologies, Plenum Press, (1995)

19. J. Albert, B. Malo, F. Bilodeau, D. C. Johnson, K. O. Hill, and I. M. Templeton

“Fabrication and characterization of submicron gratings written in planar silica glass with a Focused ion beam”

Invited paper, International Symposium on Integrated optics, Lindau (Germany), SPIE Proc. Vol. 2213, 78-88 (1994)

18. T. Kitagawa, K. O. Hill, D. C. Johnson, B. Malo, J. Albert, S. Thériault, F. Bilodeau, K. Hattori, and Y. Hibino

“Photosensitivity in P_2O_5 - SiO_2 waveguides and its application to Bragg reflectors in single-frequency Er^{3+} -doped planar waveguide laser”

Post-deadline paper PD-17, Proceedings of the 1994 Optical Fiber Communication Conference. p.79 (1994)

17. K. O. Hill, F. Bilodeau, B. Malo, T. Kitagawa, S. Thériault, D. C. Johnson, J. Albert, and K. Takiguchi

“Aperiodic in-fiber Bragg grating for optical fiber dispersion compensation”

Post-deadline paper PD-2, Proceedings of the 1994 Optical Fiber Communication Conference, p.17 (1994)

16. P. Noutsios, G. L. Yip, and J. Albert

“A new vertical directional coupler for optimum edge-coupling to an embedded photodetector”

IEEE/OSA Topical Meeting on Integrated Photonics Research '94, San Francisco, paper ThF18 (1994)

15. F. Bilodeau, K. O. Hill, B. Malo, D. C. Johnson, and J. Albert

“High-return-loss narrowband all-fiber bandpass Bragg transmission filter”

post-deadline paper ThC 12.8, Proc. of the European Conference on Optical Communications, Montreux, Vol. 3, p. 29 (1993)

14. K. O. Hill, F. Bilodeau, B. Malo, J. Albert, and D. C. Johnson

“Optical waveguide photosensitivity”

Invited talk, LEOS'93, San Jose CA (1993)

13. B. Malo, F. Bilodeau, J. Albert, D. C. Johnson, K. O. Hill, Y. Hibino, and M. Abe

“Photosensitivity in optical fiber and silica-on-substrate waveguides”

Invited Talk, 1993 SPIE Conference on Photosensitivity and self-organization in optical fibers and waveguides, Quebec, (1993)

12. K. O. Hill, F. Bilodeau, B. Malo, J. Albert, D. C. Johnson, Y. Hibino, M. Abe, and M. Kawachi

“Application of phase masks to the photolithographic fabrication of Bragg gratings in conventional fiber/planar waveguides with enhanced photosensitivity”

Conference on Optical Fiber Communications 1993, post-deadline paper PD15, San Jose CA (1993)

11. J. Albert, K. O. Hill, B. Malo, D. C. Johnson, I. M. Templeton, and J. L. Brebner

“Direct writing of volume and surface gratings with sub-micron periods in fused silica”

in Integrated Photonics Research, Vol. 11, OSA Technical Digest Series, (Optical Society of America, Washington, DC), pp. 492-495 (1993)

10. P. C. Noutsios, G. L. Yip, and J. Albert

“Characteristics of dielectric-clad directional couplers for improved edge coupling to hybrid detectors”

in Integrated Photonics Research, Vol. 11, OSA Technical Digest Series, (Optical Society of America, Washington, DC), pp. 60-63 (1993)

9. J. Albert, B. Malo, D. C. Johnson, K. O. Hill, J. L. Brebner, Y. B. Trudeau, and G. Kajrys

“Some optical properties of waveguides made by high energy ion implantation in fused silica”

in Integrated Photonics Research, Vol. 10, OSA Technical Digest Series, (Optical Society of America, Washington, DC), pp. 4-5 (1992)

8. P. Noutsios, G. L. Yip, and J. Albert

“A novel vertical directional coupler made by graded-index ion-exchanged slab waveguides”

in Integrated Photonics Research, Vol. 10, OSA Technical Digest Series, (Optical Society of America, Washington, DC), pp. 156-157 (1992)

7. J. Albert, W. J. Wang, and S. I. Najafi

“Optical damage threshold of ion-exchanged glass waveguides at 1.06 μm ”

SPIE Conference on Integrated Optics, SPIE Proceedings Vol. 1583, 27-31 (1991)

6. S. I. Najafi, W. J. Wang, G. Orcel, J. Albert, S. Honkanen, P. Pöyhönen, and M. J. Li

“Nd and Er doped glass integrated optical amplifiers and lasers”

SPIE Conference on Integrated Optics, SPIE Proceedings Vol. 1583, 32-36 (1991)

5. P. Lefebvre, V. Shahidi, J. Albert, and S. I. Najafi

“Potassium ion-exchanged Mach-Zehnder interferometers in glass”

SPIE Conference on Integrated Optics, SPIE Proceedings Vol. 1583, 221-225 (1991)

4. M. J. Li, S. I. Najafi, J. R. Simard, A. Leung, J. Albert, and K. O. Hill

“Fabrication and characterization of ion-exchanged glass channel waveguides with etched and diffused grating taps”

SPIE Proc. Vol. 1334, Current developments in optical engineering IV, 148-52, San Diego, July (1990)

3. J. Albert and J. W. Y. Lit

“Numerical modelling of 2-D field assisted ion-exchange in glass”

SPIE Symposium on Optoelectronic and Fiber Optic Devices and Applications, Boston, September 1989;

SPIE Proceedings, vol. 1177, Integrated Optics and Optoelectronics, 192-199 (1989)

2. J. Albert and G. L. Yip

“Insertion loss between single-mode fibers and diffused channel waveguides”
SPIE proceedings, vol. 933, Symposium on Integrated Optical Circuit Engineering IV,
Boston, 173-178 (1988)

1. J. Albert and G. L. Yip

“Wide-channel passive single-mode directional couplers in glass with adjustable power transfer”
Technical Digest of the 12th European Conference on Optical Communication,
Barcelona (Spain) pp.373-376 (1986)

Presentations at other scientific conferences and meetings

43. J. Albert, “Random nanoplasmonics: the key for low cost, high resolution biochemical sensing?”, Invited talk, IEEE Photonics Society Ottawa Symposium on Recent advances in Photonics, NRC (Ottawa) Feb. 7th 2014

42. J. Albert, « Sensing with Plasmons on Optical fibers, » Invited talk, Nano Photonics Summer School, University of Ottawa, May 2nd, 2012

41. J. Albert, « Dispositifs optiques linéaires et nonlinéaires à base de fibres optiques, » Invited talk, Annual meeting of the Centre Optique, Photonique et Laser du Québec, Université Laval, April 30th, 2012

40. J. Albert, “Fiber gratings from a different angle,” Invited talk, Workshop on Next-Generation Optical Fiber Technology, Townes Laser Institute, Cocoa Beach FL, October 2010)

39. J. Albert , “ Capteurs optiques à base de réseaux inclinés dans les fibres optiques, ” Invited seminar, Département de Génie informatique, UQO, April 17th 2009

38. J. Albert, “Novel photosensitive phenomena in phosphate glass waveguides and fibers,” *Invited talk*, Annual meeting of the Canadian Association of Physicists, Quebec (11 June 2008)

37. **Y. Shevchenko**, A. Ianoul, **C. Chen**, and J. Albert, “Realization of Surface Plasmon Resonance Sensors in Standard Optical Fibers,” Nanotechnologies and Photonics, Waterloo, (June 2007)

36. J. Albert, “New sensing modalities for self-referenced fiber Bragg grating sensors,” Invited presentation, OIDA/PTAP Photonic Sensors Workshop, Ottawa, June 7, 2007.

35. **D. Celo**, D. J. Walkey, T. Smy, **A. Froimovitch**, and J. Albert
“GLAD film applications for interferometric optical waveguide sensors”

NATO Advanced Study Institute on Optical waveguide sensing and imaging, Gatineau (Canada), Oct. 16th 2006.

34. **C. Chen**, J. Albert and A. Vincelette, “Tilted-grating-based optical fiber multiparameter sensors,” Optical Industry Development Association Workshop: “Biophotonic Sensors and Smart Fiber Optic Sensor Networks” (Aug. 17-18, 2005) Rochester, NY.
33. **C. Chen**, J. Albert and A. Vincelette, “Novel Temperature-Independent Grating-based optical fiber sensors,” 3rd Conference On Emerging Machinery And Structural Condition Monitoring Technologies For Defence Applications, Ottawa (May 30th to June 1st, 2005)
32. **M. Essid**, J. L. Brebner, and J. Albert
“Différence dans le comportement des défauts à déficience en oxygène dans la silice dopée au germanium sous l’irradiation aux lasers excimères ArF et KrF”
66^{ème} Congrès de l’ACFAS, Québec, 11-15 mai (1998)
31. **A. L. Tchegotareva**, J. L. Brebner, S. Roorda, and J. Albert
“Implantation des protons dans le coeur d’une fibre standard monomode: Effet sur la photosensibilité à la lumière UV”
66^{ème} Congrès de l’ACFAS, Québec, 11-15 mai (1998)
30. J. Albert, F. Bilodeau, S. J. Mihailov, D. Stryckman, D.C. Johnson, and K. O. Hill
“Photosensibilité et réseaux de Bragg dans les circuits optiques planaires”
Conférencier invité, 66^{ème} Congrès de l’ACFAS, Québec, 11-15 mai (1998)
29. **M. Verhaegen**, J. L. Brebner, and J. Albert
“Photosensibilité induite par implantation ionique dans la silice pure: Effets de la dose implantée et du type de dommage produit par le bombardement de silicium”
65^{ème} Congrès de l’ACFAS, Trois-Rivières, 12-16 mai (1997)
28. **A. Tchegotareva**, J. Albert, S. Roorda, and J. L. Brebner
“Les effets de l’implantation des protons dans les systemes des verres de SiO₂ et SiO₂:GeO₂”
65^{ème} Congrès de l’ACFAS, Trois-Rivières , 12-16 mai (1997)
27. **M. Essid**, J. L. Brebner, and J. Albert
“Changements de l’indice de refraction de la silice dopée au germanium suite à l’implantation ionique à haute énergie et à l’illumination UV”
65^{ème} Congrès de l’ACFAS, Trois-Rivières, 12-16 mai (1997)
26. J. Albert
“Photosensitivity of doped and heavy ion implanted silica glasses under excimer laser irradiation”

Invited speaker, *Glass: What's New?*, 1996 Gordon Research Conference, Tilton NH (1996)

25. **A. Ait-Ouali, L. B. Allard, M. Essid, J. L. Brebner, and J. Albert**
“Raman study of implantation effects on structural properties of silica”
Canadian Association of Physicists Annual Meeting, Ottawa, June 16-21 (1996)

24. **M. Essid, J. L. Brebner, and J. Albert**
“High energy ion implantation induced photosensitivity in Ge-doped silica”
Canadian Association of Physicists Annual Meeting, Ottawa, June 16-21 (1996)

23. **L. B. Allard, J. Albert, and J. L. Brebner**
“Luminescence and absorption studies of germanosilicate fibre preforms”
Canadian Association of Physicists Annual Meeting, Ottawa, June 16-21 (1996)

22. **M. Essid, J. L. Brebner, and J. Albert**
“Photosensibilité de Ge:SiO₂ implanté à haute énergie”
64^{ème} Congrès de l'ACFAS, Montréal, 13-17 Mai (1996)

21. **A. P. Knights, P. J. Simpson, L. B. Allard, J. L. Brebner, and J. Albert**
“Etude par spectroscopie d'annihilation de positrons du dommage créé par implantation ionique dans du SiO₂”
64^{ème} Congrès de l'ACFAS, Montréal, 13-17 Mai (1996)

20. **M. Verhaegen, J. L. Brebner, and J. Albert**
“Corrélation entre les variations d'indice de réfraction photoinduits et le blanchissage des bandes d'absorption dans l'ultra-violet du vide dans la silice implantée par des ions énergétiques”
64^{ème} Congrès de l'ACFAS, Montréal, 13-17 Mai (1996)

19. **J. Albert**
“Photosensitivity in silica glasses due to ion implantation”
Invited talk, Annual meeting of the Canadian Association of Physicists, Ottawa (1996)

18. **M. Verhaegen, J. L. Brebner, and J. Albert**
“Correlation between large photoinduced refractive index changes and bleaching of VUV absorption bands in ion-irradiated fused silica”
Spring Meeting of the Materials Research Society, San Francisco, 8-12 April (1996)

17. **M. Essid, M. Verhaegen, L. B. Allard, J. L. Brebner, and J. Albert**
“Photosensitivity induced in Ge-doped silica by high energy ion implantation”
Annual meeting of the Can. Assoc. of Physicists, Quebec, June (1995)

16. **L.B. Allard, M. Verhaegen, J. L. Brebner, J. Albert, and P. J. Simpson**
“Photosensitivity of ion-implanted silica”
Annual meeting of the Can. Assoc. of Physicists, Quebec, June (1995)

15. **L. B. Allard, M. Verhaegen, J. L. Brebner, and J. Albert**
“Photoluminescence of ion-implanted silica using ArF and KrF excimer laser excitation”
March Meeting of the American Physical Society, San Jose CA, 20-24 March (1995)
14. J. Albert
“Photosensitive planar waveguides”
Invited Paper, RANK Prize Fund Symposium on Novel Optical Effects in Glasses”,
Grasmere UK, 6-9 March (1995)
13. **L. B. Allard, M. Verhaegen, M. Essid, J. L. Brebner, and J. Albert**
“Optical properties of ion implanted silica irradiated with 193 nm ArF excimer laser light”
Fall Meeting of the Materials Research Society, Symposium on Optical waveguide materials, Boston, November (1994)
12. **M. Verhaegen, J. L. Brebner, and J. Albert**
“Guides d'ondes optiques par implantation d'ions lourds dans la silice”, 62^{ème} Congrès de l'ACFAS, Université du Québec à Montréal, Montréal, Mai (1994)
11. K. O. Hill, B. Malo, D. C. Johnson, F. Bilodeau, and J. Albert
“Photoinduced gratings in optical waveguides”
Invited presentation ThEEE2, 9th Interdisciplinary Laser Science Conference, Toronto, October (1993)
10. S. I. Najafi, S. Honkanen, J. Martin, **J. Y. Chen, P. Lefebvre, Q. He, N. Peyghambarian, C. Roux, M. Leclerc, C. L. Callender, S. J. Karnas, and J. Albert**
“Polythiophene as a nonlinear optical material for all-optical waveguide switches”
International Conference on Frontiers of Optical Systems and Materials, Padova, Italy, June (1992)
9. J. Albert, B. Malo, K. O. Hill, D. C. Johnson, R. Leonelli, and J. L. Brebner
“Kramers-Kronig analysis of photosensitivity in ion implanted optical waveguides”
Annual Meeting of the Canadian Association of Physics, Windsor (1992)
8. C. L. Callender, J. Albert, **C. Carere, S. J. Karnas, M. Leclerc, and G. Daoust**
“Third harmonic generation measurements on thin films of novel polythiophenes”
Annual Meeting of the Optical Society of America, San Jose CA (1991)
7. J. Albert
“Glass waveguide fabrication technology: A review”
Invited Talk, Annual Meeting of the Optical Society of America, Boston, November (1990)
6. J. Albert
“Effect of CO₂ laser radiation on ion-exchanged glass waveguides”

Annual Meeting of the Optical Society of America, Boston, November (1990)

5. **M. J. Li**, J. Albert, S. I. Najafi, **W. J. Wang**, and K. O. Hill
“Ion-exchanged glass waveguides with etched gratings”
Annual Meeting of the Optical Society of America, Boston, November (1990)

4. **M. J. Li**, **W. J. Wang**, S. I. Najafi, J. Albert, and K. O. Hill
“Glass waveguides with gratings”
First IEEE Int. Workshop on photonic networks, components, and applications,
Montebello (1990)

3. J. Albert and G. L. Yip
“Theoretical analysis of single-mode channel optical waveguides made by two-step ion
exchange in glass”
International IEEE AP-S Symposium and URSI Radio Science Meeting, Blacksburg VA
(1987)

2. G. L. Yip and J. Albert
“Optical waveguides by K⁺-ion exchange in glass”
Sino-British joint meeting on Optical Fiber Communication, Beijing (1986)

1. J. Albert, D. Vincent, and R. Tremblay
“Hybrid bistable optical device using an acousto-optics waveguide modulator”
Annual meeting of the Optical Society of America, Chicago, Oct. (1980)

Book chapters

J. Albert
“Ion exchange from salt melts”
Chapter 2 of *Glass integrated optics*, S. I. Najafi (ed.), Artech House, Boston (1992)

Other publications

7. J. Albert and Y. Shevchenko, “PLASMONIC OPTICAL STRUCTURES: Tilted FBGs
excite optical-fiber plasmons,” *Laser Focus World*, pp.71-75, January 2010

6. J. Albert
“Photosensitivity in doped silica optical fibres and waveguides using ArF excimer laser
light”
DOE Reports, Vol. 2, QPS Technology Inc., Dorval (Québec) (1996)

5. J. Albert and D. C. Johnson
“Pre-feasibility study report on optical switching in the post-2000 tactical environment”

A report from the Optical Communications and Electrophotonic Technologies Directorate, COMMUNICATIONS RESEARCH CENTRE, Ottawa, July (1991)

4. J. Albert

“Optical waveguide fabrication in glass: an overview”

Optical Communications and Electrophotonic Technologies Directorate, COMMUNICATIONS RESEARCH CENTRE, Ottawa, December (1990)

3. J. Albert

“Solar illumination normalization for visual satellite pictures”

Environment Canada, Atmospheric Environment Service. Pacific Region Technical Note 83-001 (1983)

2. J. Albert

“Channeled winds in Juan de Fuca Strait. An empirical verification”

Environment Canada, Atmospheric Environment Service. Pacific Region Technical Note 82-024 (1982)

1. J. Albert

“Record rainfall at and near Vancouver?”

Environment Canada, Atmospheric Environment Service. Pacific Region Technical Note 82-002 (1982)

Invited Seminars and Workshops

18. J. Albert, “Photonic activities at the CLLIPS laboratory,” Invited seminar, Faculté Polytechnique de Mons (Mons, Belgium, April 23rd, 2008)

17. J. Albert, “Photonic activities at the CLLIPS laboratory,” Invited seminar, Draka Comtech, (Marcoussis, France, April 18th, 2008)

16. J. Albert, “Photonic activities at the CLLIPS laboratory”, Weekly seminar series, Physics Department of the University of Ottawa, March 13th 2008

15. J. Albert, C. Chen, F. Chan, A. Jafari, “Novel sensing mechanisms using tilted fiber Bragg gratings,” Invited lecture, *NATO Advanced Study Institute on Optical waveguide Sensing and Imaging*, (Gatineau, Canada, Oct. 2006)

14. J. Albert

“Novel optical fiber multi-parameter sensors and UV-written cavity mirrors for phosphate glass fiber and waveguide lasers,”
Invited Talk, McMaster University (April 20th, 2006)

13. J. Albert

“Capteurs multiparamètres et cavités lasers sur guides : Nouveaux dispositifs et nouveaux matériaux photosensibles, ”

Invited talk, Université Laval (January 26th, 2006)

12. J. Albert

“Bragg gratings in Planar lightwave circuits”

Invited talk, Alcatel SEL, Stuttgart, Germany (July 9th, 2001)

11. J. Albert

“Bragg gratings in Planar Lightwave circuits”

Invited talk, Ottawa chapter of the IEEE Lasers and Electro-optics Society, Ottawa (Dec. 2, 1998)

10. J. Albert

“Photosensitivity in silica glass: structure studies through ion implantation”

Invited talk at the inauguration of the new Ion implantation facility, Université de Montréal (April 17, 1997)

9. J. Albert

“Current trends at CRC”

Workshop on Photosensitivity in fibers and waveguides, Université de Montréal (March 15, 1996)

8. J. Albert

“Photosensitivity by ion implantation in silica”

Invited presentation for a Visiting Examining Committee of NSERC at the University of Montréal (Jan. 1995)

7. J. Albert

“Photoécriture dans la silice: Physique et technologie”

Invited Colloquium, Département de Physique, Université de Montréal (Dec. 3, 1993)

6. J. Albert

“Ion induced compaction of SiO₂”

Focussed Ion Beam users workshop, National Research Council of Canada (May 7, 1993)

5. J. Albert

“Ion implantation in glasses”

Seminar at the Nuclear Physics Laboratory, Université de Montréal (Jan. 21, 1992)

4. J. Albert

“Integrated optics in glass and applications”

Invited Lecture given for a graduate course on Lasers and Photonics in the Department of Physics, University of Toronto (March 30, 1992)

3. J. Albert

“Glass waveguide fabrication”

Workshop on Glass integrated optics, Ecole Polytechnique (Nov. 30, 1990)

2. J. Albert

“An overview of glass waveguide fabrication technologies”

Seminar at McGill University (Dec. 4, 1990)

1. J. Albert

“Guides optiques par échange d'ions dans le verre”

Seminaire invité à l'Université de Montréal (Feb. 1989)