OptiFDTD Publication References – 2014

Below is a listing of scientific papers, technical journals, periodicals, and conference publications which reference the use of OptiFDTD.

[1] H. M. Hairi, T. Saktioto, D. Irawan, and J. Ali, "A Design of Twisted Double Channel SCISSORs for Optical Filter," Komunikasi Fisika Indonesia, vol. 10, no. 6, pp. 452–459, 2014.

[2] T. Chantakit, S. Kamoldilok, K. Srinuanjan, and P. P. Yupapin, "Analysis of Effective Numerical Aperture in 2-D Photonic Crystal Waveguide," in Advanced Materials Research, 2014, vol. 979, pp. 455–458.

[3] F. F. Masouleh, N. Das, and H. R. Mashayekhi, "Assessment of amplifying effects of ridges spacing and height on nano-structured MSM photo-detectors," Optical and Quantum Electronics, pp. 1–9, 2014.

[4] M. M. Hossain and M. Maniruzzaman, "Calculating Modal Index for Different Lattice Pitch Using Hexagonal PCF," IJCIT, vol. 4, no. 2, 2014.

[5] N. K. Das and S. M. Islam, "Conversion Efficiency Improvement in GaAs Solar Cells," in Large Scale Renewable Power Generation, Springer, 2014, pp. 53–75.

[6] R. Gaddam Kesava Reddy, S. Varadhan, and others, "Design and simulation of bio fluidic sensor based on photonic crystal,"International Journal of Engineering & Technology, vol. 3, no. 2, pp. 106–112, 2014.

[7] D. Bhatia and N. D. Gupta, "Design of Different Demultiplexers for Wavelength Division Multiplexing Systems Based On Photonic Crystal Waveguide," International Journal of Innovative Research in Computer and Communication Engineering, vol. 2, no. 2, pp. 3001–3014, 2014.

[8] H. R. Dehghanpour, H. Alisafaee, and S. M. Molavi Arabshahi, "Design of integrated optical circulator based on photonic crystals,"Optik-International Journal for Light and Electron Optics, vol. 125, no. 14, pp. 3587–3589, 2014.

[9] G. Behera and S. A. Ramakrishna, "Enhanced broadband transmission through structured plasmonic thin films for transparent electrodes," Journal of Nanophotonics, vol. 8, no. 1, 2014.

[10] G. Singh, M. Gupta, A. Goyal, and S. Mathur, "Estimation of field intensity distribution and its wavelength dependence in a flat focusing nanolens," Physics of Wave

Phenomena, vol. 22, no. 1, pp. 31–35, 2014.

[11] K. Tamee, K. Chaiwong, K. Yothapakdee, and P. P. Yupapin, "Fringe patterns generated by micro-optical sensors for pattern recognition," Artificial Cells, Nanomedicine, and Biotechnology, pp. 1–6, 2014.

[12] A. Kajla, S. Gupta, N. Falah, R. Z. Marandi, S. H. Sabzpoushan, P. Kripakaran, J. Sathishkumar, R. G. Krishna, V. K. Rajan, A. Raymon, and others, "Hexagonal Lattice Photonic Crystal Fiber with Low Confinement Loss and Low Chromatic Dispersion,"Journal of Electrical and Electronics Engineering, vol. 9, no. 1, pp. 1–5, 2014.

[13] V. Phetcharat, N. Thammawongsa, K. Somsuk, M. Jamsai, and P. P. Yupapin, "Holographic Data Storage and Display by PANDA Ring Resonator Technique," in Advanced Materials Research, 2014, vol. 979, pp. 499–503.

[14] B. Troia and V. M. N. Passaro, "Investigation of a novel silicon-on-insulator Rib-Slot photonic sensor based on the vernier effect and operating at 3.8 μm," Journal of the European Optical Society-Rapid publications, vol. 9, 2014.

[15] N. Das, F. F. Masouleh, and H. R. Mashayekhi, "Light Absorption and Reflection in Nano-Structured GaAs Metal-Semiconductor-Metal Photo-Detectors," Nanotechnology, IEEE Transactions on, vol. PP, no. 99, p. 1, 2014.

[16] R. Rajeswari and R. Jothilakshmi, "Modeling and Simulation of Plasmonic Nanoparticles Using Finite-Difference Time-Domain Method: A Review," in Materials Science Forum, 2014, vol. 781, pp. 33–44.

[17] P. P. Yupapin, S. Pantian, and J. Ali, "Novel design Rabi oscillation system for human quantum life detection probe," Life Science Journal, vol. 11, no. 2, pp. 235–243, 2014.

[18] P. P. Yupapin and N. Sarapat, "Novel micro-scale sensors using WGMS within the modified add-drop filter circuits," Microwave and Optical Technology Letters, vol. 56, no. 1, pp. 14–17, 2014.

[19] K. Han and C.-H. Chang, "Numerical Modeling of Sub-Wavelength Anti-Reflective Structures for Solar Module Applications,"Nanomaterials, vol. 4, no. 1, pp. 87–128, 2014.

[20] F. F. Masouleh, N. Das, and H. R. Mashayekhi, "Optimization of light transmission efficiency for nano-grating assisted MSM-PDs by varying physical parameters," Photonics and Nanostructures-Fundamentals and Applications, vol. 12, no. 1, pp. 45–53, 2014.

[21] Q.-H. Phan, N. Nguyen-Huu, and Y.-L. Lo, "Optimized Double-Layered Grating Structures for Chem/Biosensing in Mid-Infrared Range," Sensors Journal, IEEE, vol. 14, no. 9, pp. 2938–2946, 2014.

[22] J. Stewart and A. Pyayt, "Photonic crystal based microscale flow cytometry," Optics Express, vol. 22, no. 11, pp. 12853–12860, 2014.

[23] M. A. Swillam and S. A. Tawfik, "Plasmonic Slot Waveguides with Core Nonlinearity," Plasmonics, vol. 9, no. 2, pp. 409–413, 2014.

[24] Y. Chen, L. Zhan, J. Wu, and T. Wang, "Polarization anisotropic transmission through metallic Sierpinski-Carpet aperture array,"Optics express, vol. 22, no. 3, pp. 2222–2227, 2014.

[25] J. Dong, J. Liu, G. Kang, J. Xie, and Y. Wang, "Pushing the resolution of photolithography down to 15nm by surface plasmon interference," Scientific reports, vol. 4, 2014.

[26] R. Alharbi, "Reflectivity and Elastic Modulus of Nano-Aluminum Films on Silicon Crystal Substrates," University of Waterloo, 2014.

[27] N. Thammawongsa and P. P. Yupapin, "Remote artificial eyes using micro-optical circuit for long-distance 3D imaging perception,"Artificial Cells, Nanomedicine, and Biotechnology, pp. 1–5, 2014.

[28] S. Dominguez, I. Cornago, J. Bravo, J. Pérez-Conde, H. J. Choi, J.-G. Kim, and G. Barbastathis, "Simple fabrication of ultrahigh aspect ratio nanostructures for enhanced antireflectivity," Journal of Vacuum Science & Technology B, vol. 32, 2014.

[29] Z.-Y. Huang, S.-W. Chiu, C.-W. Chen, Y.-H. Chen, L.-Y. Lin, K.-T. Wong, and H.-W. Lin, "Spontaneous formation of light-trapping nano-structures for top-illumination organic solar cells," Nanoscale, vol. 6, no. 4, pp. 2316–2320, 2014.

[30] A. Mittal and R. K. Sharma, "Study and Design of hybrid elliptical air hole ring chalcogenide As2Se3 glass Microstructure Optical Fiber for Flat

Dispersion," International Journal of Engineering, Management & Sciences, vol. 1, no. 2, pp. 4–7, 2014.

[31] L. Y. Tobing, L. Tjahjana, D. H. Zhang, Q. Zhang, and Q. Xiong, "Sub-100-nm Sized Silver Split Ring Resonator Metamaterials with Fundamental Magnetic Resonance in the Middle Visible Spectrum," Advanced Optical Materials, vol. 2, no. 3, pp. 280–285, 2014.

[32] V. Kuzmiak, A. A. Maradudin, and E. R. Méndez, "Surface plasmon polariton Wannier–Stark ladder," Optics letters, vol. 39, no. 6, pp. 1613–1616, 2014.

[33] R. Gautam, H. Kaneshige, H. Yamada, R. Katouf, T. Arakawa, and Y. Kokubun, "Thermo-optically driven silicon microring-resonator-loaded Mach–Zehnder modulator for low-power consumption and multiple-wavelength modulation," Japanese Journal of Applied Physics, vol. 53, no. 2, 2014.

[34] R. Jomtarak and P. P. Yupapin, "Transmission characteristics of optical pulse in nested nonlinear microring resonators and gratings,"JOSA B, vol. 31, no. 3, pp. 474–477, 2014.

[35] L. Kuznetsova and G. Cordes, "Ultra-sensitive Noninvasive Nanoparticle Detection Using Silicon Microcavities," in Photonics in Switching, 2014.

[36] S. A. Razek, M. A. Swillam, and N. K. Allam, "Vertically aligned crystalline silicon nanowires with controlled diameters for energy conversion applications: Experimental and theoretical insights," Journal of Applied Physics, vol. 115, no. 19, 2014.

[37] R. Zafar and M. Salim, "Wideband Slow Light achievement in MIM Plasmonic waveguide by controlling Fano Resonance," Infrared Physics & Technology, vol. 67, pp. 25–29, 2014.

[38] A. Monkawa, T. Nakagawa, H. Sugimori, E. Kazawa, K. Sibamoto, T. Takei, and M. Haruta, "With high sensitivity and with wide-dynamic-range localized surface-plasmon resonance sensor for volatile organic compounds," Sensors and Actuators B: Chemical, vol. 196, pp. 1–9, 2014.