

## Journals

1. Noha Gaber, Yasser M. Sabry, Mazen Erfan, Fredreic Marty and Tarik Bourouina, "High-Q Fabry-Pérot Micro-Cavities for High-Sensitivity Volume Refractometry," *Micromachines* 9 (2), 54, 2018.
2. George A. Adib, Yasser M. Sabry, and Diaa Khalil. "Analysis of dual coupler nested coupled cavities." *Applied optics* 56, no. 34, 9457-9468, 2017.
3. M.A. Othman, Y. M. Sabry, I. M. Nassar, M. Sadek and D.A. Khalil, "Deeply-Etched MEMS Slotted Micromirrors with Controlled Transmittance," *IEEE J. Quantum Electron.* Vol. 53, No.6, 1-8, December 2017.
4. Alaa Fathy, Yasser. M. Sabry and Diaa A. Khalil, "Quasi-homogeneous partial coherent source modeling of multimode optical fiber output using the elementary source method," *Journal of Optics*, Vol. 19, No. 10, p.105605, September 2017.
5. Yasser M. Sabry, Diaa Khalil, Bassam Saadany, and Tarik Bourouina. "In-Plane Optical Beam Collimation Using a Three-Dimensional Curved MEMS Mirror." *Micromachines* 8, 134 (2017).
6. Alaa. A. Elhady, Yasser M. Sabry, and Diaa Khalil. "Optical characterization of high speed microscanners based on static slit profiling method." *Optics and Lasers in Engineering* 88, 129-138 (2017).
7. Yomna M. Eltagoury, Mostafa Soliman, Yasser M. Sabry, Mohammed J. Alotaibi and Diaa Khalil, "Electrostatic Comb-Drive Actuator with High In-Plane Translational Velocity," *Micromachines* 7, 188 (2016).
8. Kamal Khalil, Yasser M. Sabry, Khaled Hassan, Ahmed Shebl, Mostafa Soliman, Yomna Eltagoury and Diaa Khalil, "In-line optical MEMS phase modulator and application in ring laser frequency modulation," *J. Quantum Electron.* 52, 1-8 (2016).
9. Noha Gaber, Yasser M. Sabry, Frédéric Marty and Tarik Bourouina, "Optofluidic Fabry-Pérot Micro-Cavities Comprising Curved Surfaces for Homogeneous Liquid Refractometry—Design, Simulation, and Experimental Performance Assessment," *Micromachines* Vol. 7, No. 4, 62, April 2016
10. Mazen Erfan, Yasser M. Sabry, Mohammad Sakr, Bassem Mortada, Mostafa Medhat and Diaa Khalil, "On-Chip Micro-Electro-Mechanical System Fourier Transform Infrared (MEMS FT-IR) Spectrometer-Based Gas Sensing," *Appl. Spectrosc.* 70, 897-904 (2016).
11. Bassem Mortada, Mazen Erfan, Mostafa Medhat, Yasser M. Sabry, Bassam Saadany and Diaa Khalil, "Wideband Optical MEMS Interferometer Enabled by Multi-Mode Interference Waveguides," *J. Lightwave Technol.* Vol. 34, No. 9, 2016.
12. Yasser M. Sabry; Yomna Eltagoury; Ahmed Shebl, Mostafa Soliman; Mohamed Sadek and Diaa Khalil, "In-plane deeply-etched optical MEMS notch filter with high- speed tunability," *J. Opt.* Vol. 17, No. 12, 125703, October 2015
13. Yasser M. Sabry, Diaa Khalil, Bassam Saadany and Tarik Bourouina, "Curved Silicon Micromirror for Linear Displacement-to-Angle Conversion with Uniform Spot Size," *IEEE J. Sel. Top. Quantum Electron.* Vol. 21, No. 4, July/August 2015.

14. Haitham Omran, Yasser M. Sabry, Mohamed Sadek, Khalid Hassan and Diao Khalil, "Wideband Sub-Wavelength Deeply Etched Multilayer Silicon Mirrors for Tunable Optical Filters and SS-OCT Applications," *IEEE J. Sel. Top. Quantum Electron.* Vol. **21**, No. 4, July/August 2015.
15. Yasser M. Sabry, Diao Khalil and Tarik Bourouina, "Monolithic silicon-micromachined free-space optical interferometers onchip", *Laser Photonics Rev.* **9**, 1–24 (2015).
16. Yasser M. Sabry, Diao Khalil, Bassam Saadany and Tarik Bourouina, "In-plane external fiber Fabry–Perot cavity comprising silicon micromachined concave mirror," *J. Micro/Nanolith. MEMS MOEMS* **13**, 011110 (2014).
17. Yasser M. Sabry, Diao Khalil, Bassam Saadany and Tarik Bourouina, "Multi-step etching of three-dimensional sub-millimeter curved silicon microstructures with in-plane principal axis," *Microelectron. Eng.* **114**, 78-84 (2014).
18. Haitham Omran, Yasser M. Sabry, Mohamed Sadek, Khalid Hassan, Mohammed Y. Shalaby and Diao Khalil, "Deeply-Etched Optical MEMS Tunable Filter for Swept Laser Source Applications," *Photonic. Technol. Lett.* PP(99), 1 (2013). Featured article in OCTnews.org: <http://www.octnews.org/articles/5223550/feature-of-the-week-3-9-14-deeply-etched-optical-m/>.
19. Yasser M. Sabry, Bassam Saadany, Diao Khalil and Tarik Bourouina, "Silicon micromirror of three-dimensional curvature enabling lensless efficient coupling of free space light" *Nature Light Sci. Appl.* **2**, e94 (2013). [**Most downloaded article in JLSA in August 2013**].
20. Yasser M. Sabry, Bassam Saadany, Diao Khalil and Tarik Bourouina, "Integrated wide angle optical microscanner" *Optic. Express*, **21**, 13906-13916 (2013). [**Selected as featured article in advances in engineering**]
21. Mohammed M. El-Banna, Yasser M. Sabry, W. Fikry, O. A. Omar. "Partial-Coupled Mode-Space" A new Approach for Efficient Simulation of Ballistic Quantum Transport in Multi-gate Devices, *J Am Sci* **9**, 329-338 (2013).
22. Yasser M. Sabry, Mostafa Medhat, Bassam Saadany, Tarik Bourouina and Diao Khalil," Parameter extraction of MEMS combdrive near-resonance equivalent circuit: physically-based technique for a unique solution" *J. Micro/Nanolith. MEMS MOEMS* **11**, 021205 (2012).
23. Yasser M. Sabry, Tarek M. Abdolkader and Wael Fikry Farouk, "Simulation of quantum transport in double-gate MOSFETs using the non-equilibrium Green's function formalism in real-space: A comparison of four methods", *Int. J. Numer. Model.* **24**, 322–334 (2011).

### **International conferences**

1. Yasser M. Sabry, Khaled Hassan, Momen Anwar, Mohamed H. Alharon, Mostafa Medhat, George A. Adib, Rich Dumont, Bassam Saadany, Diao Khalil, "Ultra-compact MEMS FTIR spectrometer", *Proc. SPIE 10210, Next-Generation Spectroscopic Technologies X*, 102100H, May 2017, doi: 10.1117/12.2268078;
2. Alaa Fathy, Yasser M. Sabry, Diao Abdel Maguid Khalil, "Characterization and modelling of multimode optical fiber for MOEMS applications using the elementary source method" in *SPIE Photonics West – OPTO*, San Francisco, February 2017.

3. Mahmoud A. Selim, George A. Adib, Yasser M. Sabry, Daaa A. M. Khalil, "Gain-assisted broadband ring cavity enhanced spectroscopy", in SPIE Photonics West – OPTO, San Francisco, February 2017.
4. Yasser M. Sabry, Kamal Khalil, Daaa Khalil, "Tunable and non-reciprocal dual-wavelength SOA-fiber ring laser", in SPIE Photonics West – LASE, San Francisco, February 2017.
5. Mostafa Abdelsalam, Yasser M. Sabry, Mazen Erfan, Daaa A. M. Khalil, "Multi-segment tapered optical mirror for MEMS LiDAR application", in SPIE Photonics West – LASE, San Francisco, February 2017.
6. Mazen Erfan, Ahmed A. Elsayed, Yasser M. Sabry, Bassem Mortada, Khaled Sharaf, Daaa A. M. Khalil, "Environmental mid-infrared gas sensing using MEMS FTIR spectrometer", in SPIE Photonics West – OPTO, San Francisco, February 2017.
7. Mazen Erfan, Yasser M. Sabry, Bassem Mortada, Khaled Sharaf and Daaa Khalil, "Mid Infra-Red MEMS FTIR Spectrometer," Presented in SPIE Photonics West – OPTO, San Francisco, February 2016.
8. Muhammad A. Othman, Yasser M. Sabry, Mohamed Sadek, Ismail M. Nassar and Daaa Khalil, "Deeply-etched micromirror with vertical slit and metallic coating enabling transmission-type optical MEMS filters," Presented in SPIE Photonics West – OPTO, San Francisco, February 2016.
9. Yomna Eltagoury, Yasser M. Sabry and Daaa Khalil, "Novel Fourier transform infrared spectrometer architecture based on cascaded Fabry-Perot interferometers," Presented in SPIE Photonics West – OPTO, San Francisco, February 2016.
10. Momen Anwar, Yasser M. Sabry, Philippe Basset, Frédéric Marty, Tarik Bourouina and Daaa Khalil, "Black silicon-based infrared radiation source," Presented in SPIE Photonics West – OPTO, San Francisco, February 2016.
11. Yasser M. Sabry, Yomna M. Eltagoury, Ahmed Shebl, Mostafa Soliman, Mohamed Sadek, Daaa Khalil, "Fiber-coupled Fabry-Pérot notch filter combining in-plane axis, high speed MEMS tunability and large etching depth," SPIE, Photonics West 2015, USA, February 2015.
12. Kamal Khalil, Fares Al-Arifi, Mohammed Al-Otaibi, Yasser M. Sabry, Daaa Khalil, "Bidirectional single-longitudinal mode SOA-fiber ring laser based on optical filter-assisted gain starvation," SPIE, Photonics West 2015, USA, February 2015.
13. Ahmed Shebl, Khaled Hassan, Fares Al-Arifi, Mohammed Al-Otaibi, Yasser M. Sabry, Daaa Khalil, "Thermal stability of multi-longitudinal mode laser beating frequencies in hybrid semiconductor-fiber ring lasers," SPIE, Photonics West 2015, USA, February 2015.
14. Kamal Khalil, Khaled Hassan, Ahmed Shebl, Mostafa Soliman, Fares Al-Arifi, Mohammed Al-Otaibi, Yomna M. Eltagoury, Yasser M. Sabry, Daaa Khalil, "MEMS-based frequency modulation of fiber ring laser," SPIE, Photonics West 2015, USA, February 2015.

15. Haitham Omran, Yasser M. Sabry, Khaled Hassan and Diao Khalil “Deeply-etched 1 micron-thick silicon layers enabling 170-nm bandwidth highly-reflective Bragg mirrors”, International Conference on Optical MEMS and Nanophotonics Glasgow, Scotland, 2014.
16. Yomna M. Eltagoury, Mostafa Soliman, Mohammed Al-Otaibi, Yasser M. Sabry, Mohamed Sadek and Diao Khalil, “In-plane comb-drive actuator with high frequency-displacement product for micro-optical bench applications”, International Conference on Optical MEMS and Nanophotonics Glasgow, Scotland, 2014.
17. Bassem Mortada, Yasser M. Sabry, Muhammad Nagi, Khaled Hassan, Bassam Saaday, Tarik Bourouina and Diao Khalil, “High-throughput deeply-etched scanning Michelson interferometer on-chip”, International Conference on Optical MEMS and Nanophotonics Glasgow, Scotland, 2014.
18. Kamal Khalil, Khaled Hassan, Ahmed Shebl, Mostafa Soliman, Yomna M. Eltagoury, Mohammed Al-Otaibi, Yasser M. Sabry and Diao Khalil, “MEMS corner-cube transmission-type optical phase modulator in DRIE technology”, International Conference on Optical MEMS and Nanophotonics Glasgow, Scotland, 2014.
19. Yasser M. Sabry, Diao Khalil, Bassam Saadany, and Tarik Bourouina, “Inclination-independent transformation of light beams using high-throughput uniquely-curved micromirrors”, The 27th IEEE International Conference on Micro Electro Mechanical Systems, January 2014.
20. Haitham Omran, Yasser M. Sabry, Mohamed Sadek, Khaled Hassan, Mohammed Y. Shalaby, and Diao Khalil, “MEMS optical tunable filter based on free-standing sub-wavelength silicon layers”, SPIE MOEMS-MEMS, Photonics West 2014, USA, February 2014.
21. Yasser M. Sabry, Diao Khalil, Bassam Saadany and Tarik Bourouina, “Three-dimensional collimation of in-plane-propagating light using silicon micromachined mirror”, SPIE MOEMS-MEMS, Photonics West 2014, USA, February 2014.
22. Alaa Eldin S. M. El Hady, Yasser M. Sabry, M. Yehia, and D. Khalil, “Dual-fiber OCT measurements”, SPIE BiOS, Photonics West 2014, USA, February 2014.
23. Yasser Sabry, Diao Khalil, Bassam Saadany, and Tarik Bourouina, “Wide steering angle microscanner based on curved surface” SPIE MOEMS-MEMS, Photonics West 2013, pp. 86160F-86160F (2013) **[Best student paper award]**.
24. Yasser Sabry, Tarik Bourouina, Bassam Saadany, and Diao Khalil, “In-plane diffraction loss free optical cavity using coated optical fiber and silicon micromachined spherical mirror” SPIE MOEMS-MEMS, Photonics West 2013, pp. 86160P-86160P (2013) .
25. Mohammed M. El-Banna, Yasser M. Sabry, Wael Fikry, Tarek M. Abdolkader, Omar A. Omar, “Simulation of Quantum Transport in Double Gate MOSFETs: Coupled-Mode Space versus Real Space”, ICET, pp. 1-5 (2012).
26. Diao Khalil , Yasser Sabry, Haitham Omran, Mostafa Medhat, Amr Hafez, and Bassam Saadany, “Characterization of MEMS FTIR Spectrometer “,SPIE MOEMS-MEMS, pp. 86160P-86160P (2011).
27. Mohammed El-Banna, Yasser M. Sabry, Wael Fikry and Omar A. Omar, “Partial-coupled mode space for quantum transport simulation in nanoscale double-gate MOSFET” in International Conference on Microelectronics ICM, pp.303:306 (2010).

28. Yasser Sabry, Mostafa Medhat, Bassam Saadany, Amr Safwat and Daaa Khalil, "Optical Characterization Technique for MEMS Comb Drive Resonators", International Conference on Optical MEMS and Nanophotonics, pp. 127:128 (2009).
29. Yasser M. Sabry, Ahmed Hareedy and Mohamed Selim "Novel Method for Modeling IBIS Four-Level Hysteresis Behavior in an Analog Simulator", in Electronics Packaging Technology Conference EPTC, pp.1403:1408 (2008).
30. Yasser M. Sabry, Tarek M. Abdolkader and Wael Fikry Farouk, "Uncoupled Mode-Space Simulation Validity for Double Gate MOSFETs," in International Conference on Microelectronics ICM, pp.364:365 (2007).

### **National conferences**

1. Yasser M. Sabry, Daaa Khalil and Tarik Bourouina, "Distortion of Gaussian beams reflected off-axis on curved mirrors in the MEMS scale", in 34<sup>th</sup> National Radio Science Conference (NRSC), Port Saied, March 2017 [**Best paper award**].
2. Mohamed N. Ali, Yasser M. Sabry, Frédéric Marty, Tarek Bourouina, Daaa Khalil and Khaled A. Kira, "Theoretical and Experimental Analysis of the Fabrication Tolerance on Deeply Etched Silicon/Air Bragg Micromirrors", in 34<sup>th</sup> National Radio Science Conference (NRSC), Port Saied, March 2017.
3. Michael Gad, Aya Zaki and Yasser M. Sabry, "Silicon photonic mid-infrared grating coupler based on silicon-on-insulator technology", in 34<sup>th</sup> National Radio Science Conference (NRSC), Port Saied, March 2017.
4. Abdelrahman A. Maher, Mazen Erfan, Yasser M. Sabry, and Daaa Khalil, "Multimode Spot-Size Converter for Optical MEMS Applications", in 34<sup>th</sup> National Radio Science Conference (NRSC), Port Saied, March 2017.
5. George Albert, Yasser M. Sabry and Daaa Khalil, "Beating Signal Power Level Improvement in Ring Lasers Based on Coupled Ring Resonators", Presented in 33rd National Radio Science Conference (NRSC), Aswan, February 2016 [**Best paper award**].
6. Ahmed Shebl, Ahmed M. Othman, Ashraf Mahmoud, George Albert, Yasser M. Sabry, Khaled Sharaf, Daaa Khalil, "Ring Laser Gyroscope Based on Standard Single-Mode Fiber and Semiconductor Optical Amplifier ," Presented in 33rd National Radio Science Conference (NRSC), Aswan, February 2016
7. Ahmed A. Elsayed, Mohammad Sakr, Mazen Erfan, Yasser M. Sabry and Daaa Khalil, "On the Environmental Gas Sensing Using MEMS FTIR Spectrometer in the Near-Infrared Region", Presented in 33rd National Radio Science Conference (NRSC), Aswan, February 2016.
8. Yasser M. Sabry, Tarik Bourouina and Daaa Khalil, "Optical coupling of cylindrical micromirrors in micro-optical benches," In 32nd National Radio Science Conference (NRSC) 2015, Egypt, March 2015.

9. Yomna M. Eltagoury, Mostafa Soliman, Mohamed Sadek, Yasser M. Sabry and Diao Khalil, "High frequency in-plane MEMS actuator," In 32<sup>nd</sup> National Radio Science Conference (NRSC) 2015, Egypt, March 2015. **[Best student paper award]**.
10. Yasser M. Sabry, Haitham Omran and Diao Khalil "Intrinsic Improvement of Diffraction-Limited Resolution in Optical MEMS Fourier-Transform Spectrometers", 31<sup>st</sup> National Radio Science Conference (NRSC2014). **[Best paper award]**.
11. Yasser M. Sabry, Tarek M. Abdolkader and Wael Fikry Farouk," Quantum Transport Based Simulation and Design Optimization of a 10 nm FinFET", in Design and Technology of Integrated Systems in Nanoscale Era DTIS, pp.125:129 (2009).
12. Yasser M. Sabry, Amr Attaby, Tarek M. Abdolkader and Wael Fikry Farouk, "Inspection of the Contact Block Reduction Method for Quantum Transport Simulation of FinFETs", in National Radio Science Conference NRSC, pp. 1-8 (2009).
13. Yasser M. Sabry, Mohammed T. Abdel-Hafez, Tarek M. Abdolkader and Wael Fikry Farouk, "A Computationally Efficient Method for Quantum Transport Simulation of Double-Gate MOSFETs", in National Radio Science Conference NRSC, pp. 1-8 (2009).
14. M. Abd El Hakim, Yasser M. Sabry, Yousry Elmaghraby, Tarek M. Abdolkader and Wael Fikry , "Gate Leakage in Low Standby Power 16 nm Gate Length Double-Gate MOSFETs", in National Radio Science Conference NRSC, pp. 1-9 (2009).

### **Invited talks**

1. Photonic MEMS & Optofluidics: Platform Miniaturizing Bulky Instruments into Sensor Scale, Faculty of Engineering, University of Duisburg Essen, December 2016.
2. NeospectraTM: a Story of Photonics Success & Opportunity, APEC 2016, Faculty of Engineering, Ain Shams University, October 2016.
3. MEMS Spectrometers and Optical Coherence Tomography Modules for Biomedical applications, ITAC event in the faculty of Engineering, Cairo University, February 2016.
4. Recent advanced in MEMS-based FTIR spectroscopy, ICL Lab in the faculty of Engineering, Ain Shams University, December 2015.

### **Books**

1. Mazen Erfan, Yasser M. Sabry, Marwa Rageb and Diao Khalil "Optical Gas Sensing Based on MEMS FTIR Spectrometers" SPIE 31 August 2017, ISBN 9781510613706, Volume SL32

### **Book chapters**

1. Yasser M. Sabry, Mohammed Elbanna, Tarek M. Abdolkader and Wael Fikry Farouk, "Simulation of Quantum Ballistic Transport in FinFETs " in Toward Quantum Fin FET 17 (Lecture Notes in Nanoscale Science and Technology) edited by Weihua Han and Zhiming M. Wang, Springer (2013).

2. Yasser M. Sabry, Diaa Khalil and Tarik Bourouina, "Optical MEMS Interferometers," in Interferometers: Fundamentals, Methods and Applications edited by Kystal Harmon, Nova Science Publishers (2015)

### **Application notes**

1. Yasser M. Sabry and Device modeling team MGC, "IBIS Signal Integrity Analysis using ELDO," AppNot 2008: <http://supportnet.mentor.com/reference/appnotes/10223.cfm>

### **Granted patents**

1. Yasser M. Sabry, Diaa Khalil, Tarik E. Bourouina, Momen Anwar, "Structured silicon-based thermal emitter," U.S. patent 9793478, granted Oct 17, 2017.
2. Yasser M. Sabry, Diaa Abdel Maged Khalil, Mohamed Sadek, "Integrated apertured micromirror and applications thereof," U.S. patent 9557556, granted 31 January 2017.
3. Yasser M. Sabry, Tarik Bourouina, Diaa Khalil and Bassam Saadany "Integrated monolithic optical bench containing 3-D curved optical elements and methods of its fabrication" U.S. patent 9046690, granted June 2, 2015.
4. Yasser M. Sabry, Diaa Khalil, Bassam Saadany and Tarik Bourouina "Aspherical optical surfaces and optical scanners" U.S. patent 9158109, granted October 13, 2015
5. Yasser M. Sabry, Diaa Khalil and Bassam Saadany "Fourier transform micro spectrometer based on spatially-shifted interferogram bursts" U.S. patent 9429474, granted 30 August 2016.
6. Yasser M. Sabry, Diaa Khalil and Mohammed Sadek "Integrated apertured micromirror and applications thereof" U.S. 61803035 patent application.