

Vita of Demis David John

Email: demis@ucsb.edu
Nationality: United States of America & United Kingdom
Date of Birth: April 24, 1982 (Dewsbury, United Kingdom)

Education

June 2012	Doctor of Philosophy in Electronics and Photonics Electrical & Computer Engineering Department University of California Santa Barbara, Santa Barbara, California, U.S.A.
March 2007	Master of Science in Electronics and Photonics Electrical & Computer Engineering Department, University of California Santa Barbara, Santa Barbara, California, U.S.A
December 2005	Bachelor of Science in Electrical Engineering (Cum Laude) Electrical & Computer Engineering Department University of Massachusetts Lowell, Lowell, MA, U.S.A.
June 1999	High School Diploma Concord-Carlisle High School Concord, Massachusetts, U.S.A.

Professional Activities

Institution	Location	Position	Years
University of California Santa Barbara	Santa Barbara, CA	Process Scientist Manager	2018–present
Undisclosed Photonics Co.	–	R&D Consultant	2024–2025
Undisclosed Photonics Co.	–	R&D Consultant	2024–2025
Undisclosed University	–	Workforce and Cleanroom Development Consultant	2023-2025
GenXComm Inc.	Austin, TX	R&D Consultant	2018–2024
KPN Technologies	Burlington, KS	Workforce and Business Development Consultant	2022–2023
Undisclosed Photonics Co.	–	R&D Consultant	2022

Institution	Location	Position	Years
University of California Santa Barbara	Santa Barbara, CA	Principle Development Engineer	2017–2018
Praevium Research Inc.	Santa Barbara, CA	R&D Manufacturing Consultant	2017–2018
Praevium Research Inc.	Santa Barbara, CA	Photonic Device Scientist	2012–2017
Praevium Research Inc.	Santa Barbara, CA	R&D Manufacturing Consultant	2009–2012
Freedom Photonics LLC	Santa Barbara, CA	R&D Manufacturing Consultant	2008–2012
University of California Santa Barbara	Santa Barbara, CA	Ph.D. Candidate	2007–2012
University of California Santa Barbara	Santa Barbara, CA	Graduate Student Researcher	2005–2007

Honors/Awards

- **Innovator of the Year**, Santa Barbara Chamber of Commerce, 2023
- **Fellowship from the National Science Foundation (NSF):** LEAPS (“Let’s Explore Applied Physical Science”), 2009–2010
- **Induction into IEEE Eta Kappa Nu (HKN)**, Electrical & Computer Engineering Honor Society, 2005

Books

- **Demis D. John**, *Make Microchips! The World's Most Advanced Tech, In 3 Steps*. Independently Published, Aug. 2026. Available: <https://www.amazon.com/dp/B0HDRHG3KM>
- **Demis D. John**, Grant M. Brodnik, Sarat Gundavarapu, Renan L. Moreira, Michael Belt, Taran Huffman, Daniel J. Blumenthal, “Low-Loss Photonic Integration: Applications in Datacenters,” Chapter 11 in *Datacenter Connectivity Technologies: Principles and Practice*, Editor: Frank Chang, River Publishers, July 2018.

Press & Articles

- Santa Barbara South Coast Chamber of Commerce, “**Classroom Hosted Industry Partnerships (CHIP) Program**,” 2026. [Online]. Available: <https://sbcschamber.com/chip/>. [Accessed: Aug. 23, 2026].
 - Syndicated: Santa Barbara South Coast Chamber, “**SBSC Chamber - Classroom Hosted Industry Partnerships (CHIP) 2026**,” YouTube, 2026. [Online]. Available: <https://www.youtube.com/watch?v=LWkWjMOu5vl>. [Accessed: Aug. 23, 2026].
- A. Sharma, “**Innovative Bootcamp at UCSB Opens Doors to Semiconductor Careers**,” *UCSB College of Engineering News*, June 17, 2026. [Online]. Available: <https://engineering.ucsb.edu/news/Nanofab-bootcamp-gets-IEEE-Credentials>

- Demis D. John, “**Scalable Manufacturing in an R&D Lab: Supporting Startup/Research Success in a high-mix environment**,” CA DREAMS (Microelectronics Commons CHIPS Act Hub) Technical Seminar Series, June 12th 2026. <https://www.youtube.com/watch?v=ENdgmvlbsU0>
- “**Building the Future Workforce: CHIP Program Connects Students with Industry**,” Santa Barbara South Coast Chamber of Commerce, May 29th 2026, [Online] Available: <https://sbsccchamber.com/building-the-future-workforce-chip-program-connects-students-with-industry/>
- Anchal Sharma, “**From Classroom to Cleanroom: A Journey into Microelectronics**,” UC Santa Barbara College of Engineering, May 28th 2026. [Online] Available: <https://engineering.ucsb.edu/news/Nanofab-CHS-CHIP-Collaboration>
- C. Woodyard, “**Santa Barbara emerges as tech titan thanks to UCSB and Google Quantum AI**,” *Santa Barbara News-Press*, Feb. 18, 2026. [Online]. Available: <https://www.newspress.com/2026/02/18/santa-barbara-emerges-as-tech-titan-thanks-to-ucsb-and-google-quantum-ai/>
- G. Rak, “**Microcredentials Chip Away at Semiconductor Workforce Gap: To scale up the workforce, start small with short courses**,” *IEEE Spectrum*, vol. 62, no. 10, pp. 24–27, Sep. 25, 2025. [Online]. Available: <https://spectrum.ieee.org/microcredentials-semiconductor-workforce-development>
- “**Roadmap to Recovery: Power On**,” Santa Barbara South Coast Chamber of Commerce, Whitepaper, April 2025. [Online] Available: https://sbsccchamber.com/wp-content/uploads/2025/04/PowerOn_RoadmapToRecovery_April2025.pdf
- “**Building a Bridge between Education and Industry**,” Santa Barbara South Coast Chamber of Commerce Magazine, 2025 issue, pg. 12. [Print & Online] Available: https://www.nxtbook.com/santabarbarasccc/sbsccc/mag_25/index.php#/p/12
- S. Fernandez, “**UC Santa Barbara partners with SB City College to expand workforce training in micro/nanotechnology and semiconductor manufacturing**,” *The Current, UC Santa Barbara*, Sep. 9, 2024. [Online]. Available: <https://news.ucsb.edu/in-focus/uc-santa-barbara-partners-sb-city-college-expand-workforce-training-micronanotechnology>
 - Syndicated: *California NanoSystems Institute News*, Sep. 20, 2024. [Online]. Available: <https://www.cnsi.ucsb.edu/news/all/2024/ucsb-partners-santa-barbara-city-college-expand-workforce-training>
- R. Caraway, “**TechTopia Shows Off Innovation and Research of Industry, UCSB Labs**,” *Noozhawk*, Aug. 30, 2024. [Online]. Available: <https://www.noozhawk.com/techtopia-shows-off-innovation-and-research-of-ucsb-labs-local-industry/>
 - Syndicated: *UCSB Electrical & Computer Engineering News*, Aug. 2024. [Online]. Available: <https://www.ece.ucsb.edu/news/all/2024/john-nanofab-techtopia>
- “**Expansion of CC-PRIME: Central Coast Partnership for Regional Industry-Focused Micro/Nanotechnology Education**,” *UCSB Quantum Photonics Lab News* (NSF/Intel Announcement), Aug. 14, 2024. [Online]. Available: <https://qpl.ece.ucsb.edu/news/2024/expansion-cc-prime-central-coast-partnership-regional-industry-focused>
- “**Cleanroom Course Offers a Gateway to Microelectronics Careers**,” *USC Viterbi School of Engineering News*, June 28, 2024. [Online]. Available: <https://viterbischool.usc.edu/news/2024/06/cleanroom-course-offers-a-gateway-to-microelectronics-careers/>
- “**Goleta’s Finest 2023 Award Recipients Announced**,” Santa Barbara South Coast Chamber of Commerce, December 2023. [Online]. <https://sbsccchamber.com/goletas-finest-2023-award-recipients-announced/>
- “**UCSB Nanofab: Talking Tech & Manufacturing on the South Coast**,” Santa Barbara South Coast Chamber of Commerce Magazine, 2023 issue, pg. 40-41. [Print & Online] Available: https://www.nxtbook.com/santabarbarasccc/sbsccc/mag_23/index.php#/p/40

- **“AIM Photonics Outreach Spotlight: FUSE Program,”** *AIM Photonics at UCSB*, June 17, 2016. [Online]. Available: <https://aim.ucsb.edu/news-events/aim-photonics-outreach-spotlight-fuse-program>
- **“Research Highlights: An Ultra-Low-Loss (<0.1 dB/m) Planar Silica Waveguide Platform,”** *IEEE Photonics Society Newsroom*, 2011.

Relevant Activities

- **Coalition Lead, Senior Personell & Grant Writer, Central Coast Partnership for Regional Industry-focused Micro/Nanotechnology Education (CC-PRIME)** 2019–present.
Performed market research and customer discovery to identify successful semiconductor education programs at the Community College level. Awarded NSF-ATE grant in 2021 (NSF award #2100405), in partnership with Santa Barbara City College (SBCC). Developed semiannual “cleanroom bootcamp” for community college students, upskilling and reskilling participants into the semiconductor industry. Awarded follow-on grant (NSF award #2400982) to expand SBCC program into full associate’s degree.
- **Founding Member, Manufacturing and Technology Committee** within the South Coast Chamber of Commerce, 2020–2026.
This committee within the South Coast Chamber of Commerce represents semiconductor & manufacturing businesses in the cities of Santa Barbara, Carpinteria and Goleta, and facilitates meetings with government and related organizations. In 2019, led the Chamber team to organize quarterly “Tech Roundtable” meetings of regional manufacturing companies, leading to regional marketing campaigns highlighting multiple local semiconductor companies, annual TechTopia events for policymakers, and the formation of a Workforce Development Hub within the Chamber.
- **Member of the national Micro-Nanotechnology Education Center Industry & Leadership teams**, 2021–present. MNT-EC is a national center at Pasadena City College, funded by the National Science Foundation’s Advanced Technological Education (NSF-ATE) program, which brings together U.S. community/city colleges to build semiconductor and nanotechnology educational activities, programs and funding.
- **Outreach Committee Chair, Photonics Society at UCSB**, 2014–2016. Launched first annual 2016 Women In Photonics Week, organized the subsequent annual weeks in 2017, 2018 and aided in 2019. Launched first hands-on FUSE science activity in 2013 “Light Pipes”, and led team during creation of subsequent FUSE activity “Color Mixing” and “Holograms” as Outreach Chair – these activities were deployed to local middle schools throughout the year. Organized the development and deployment of LaserComm activity at local science museum “The MOXI, Wolf Museum for Exploration”, with Sam Shaw.
- **Founding Member & Industry Liaison, Photonics Society at UCSB**, 2012–2015. Industry Committee Chair from 2017–2017. Launched the first two semi-annual Photonics Banquets to build community-relations between local photonics companies and students, and promoted industry outreach via invited seminars. Spearheaded the society’s first industry sponsorship of social events, and oversaw the expansion to access IEEE, OSA and SPIE sponsorship.
- **Mentor, Research Mentorship Program (RMP)**, May 2011–August 2011. Intern: Alex Erstad (High school student from Arizona). Project Title: “Automated Loss Detection For Photonic Integrated Circuits Using A Top Down Infrared Camera.”

- **Coordinator, Let's Explore Physical Science (LEAPS) after-school science clubs** (NSF funded), Oct. 2009–Aug. 2010. Hired & managed 5 UCSB undergraduates each academic quarter in designing and teaching after-school science clubs at five Santa Barbara Elementary and Middle schools.
- **Mentor, Research Experience for Teachers (NNIN-RET)**, May–Aug. 2009. Intern: Marilyn Garza (8th grade Teacher at Santa Barbara Junior High). Project Title: “Glass Deposition & Etching for Glass Waveguides”, Curriculum Developed: “Lesson 1: Small Scale Stenciling: Mask Lab” & “Lesson 2: Small Scale Sculpting: Etch Lab.”
- **Mentor, Research Experience for Teachers (NNIN-RET)**, May–Aug. 2008. Intern: Marilyn Garza (8th grade Teacher at Santa Barbara Junior High). Project Title: “Optical fibers fabricated on a microchip level”, Curriculum Developed: “Lesson 1: Refraction Tank”, “Lesson 2: Waveguides (Gelatin)” & “Lesson 3: Optical Fiber Limbo.”
- **Mentor, Research Experience for Teachers (NNIN-RET)**, May–Aug. 2007. Intern: Richard Moore (High school Teacher from San Fernando Valley). Project Title: “Fabrication of Chip-Scale Optical Waveguides for High-Speed Communications”, Curriculum Developed: “Jell-Ou2122 Waveguides and Power Loss.”
- **Mentor, 8th Grade Science Fair**, Dec. 2006–March 2007. Student: Connor Lynch. Project: “Energy and Cleanliness Comparison between a Motor Running on Gasoline versus Hydrogen.”
- **DJ, KCSB 91.9 FM Santa Barbara**, 2017–present. Program Title: “The Better Way Gospel Hour”
- **DJ, KCSB 91.9 FM Santa Barbara**, 2006–2010. Program Title: “Reelin' & Rockin' with D & Z.”

Peer-Reviewed Publications

- Aidana Beisenova, Wihan Adi, Wenxin Wu, Shovasis Kumar Biswas, Samir Rosas, Biljana Stamenic, **Demis D. John**, Filiz Yesilkoy, “Wafer-Scale All-Dielectric Quasi-BIC Metasurfaces: Bridging High-Throughput Deep-UV Lithography with Nanophotonic Applications,” *Nano Letters*, vol. 26, no. 6, pp. 2059-2067, Feb. 2026. DOI: 10.1021/acs.nanolett.5c05226
- Ruonan Peng, Zhenxuan Yuan, **Demis D. John**, Biljana Stamenic, Fatt Foong, Bhaskar Sharma, FNU Yuqing, Chujing Zheng, Jacob Waitkus, Ke Du, “Silicon Micropillar-Enhanced CRISPR Biosensor for Rapid and Sensitive Detection of Drug-Resistant Bacteria,” *bioRxiv* (Preprint), Dec. 2025. DOI: 10.64898/2025.12.15.694528
- Eduardo Hirata Miyasaki, Antone A. Bajor, Gustav M. Pettersson, Maximilian L. Senftleben, Kaitlyn E. Fouke, Thomas G. W. Graham, **Demis D. John**, Jennifer R. Morgan, Gal Haspel, Sara Abrahamsson, “High-speed 3D imaging with a 25-camera multifocus microscope,” *Optica*, vol. 12, no. 8, pp. 1230-1241, Aug. 2025. DOI: 10.1364/OPTICA.563617
- Nicholas Bettwy, Jacob J. John, Christine Ji, **Demis D. John**, Pat Boyce, Grady Boyce, “Astrometric Measurements of WDS 02132+5412 STF 225 AB and AC,” *Journal of Double Star Observations*, vol. 21, no. 2, 2025. Online
- Skyler Palatnick, Maxwell A. Millar-Blanchaer, J. Kent Wallace, **Demis D. John**, Arthur H. Moore, Tobias Wenger, “Achromatizing photolithographically patterned metasurfaces with arbitrary, variable unit cell size,” *Optics Express*, vol. 32, no. 26, pp. 47057-47075, Dec. 2024. DOI: 10.1364/OE.544000
- Ben Salmond, **Demis D. John**, William J. Mitchell, Brian J. Thibeault, Tino Richter, Achim Nadzeyka, Petr Mazarov, Florian Meyer, Johannes Fridmann, Yating Yu, Michael Wale, William Meredith, Peter M. Smowton,

David Read, Sam Shutts, "Fabricating distributed feedback laser gratings with bismuth and gold focused ion beams," *Journal of Vacuum Science & Technology B*, vol. 42, no. 6, Nov. 2024. DOI: 10.1116/6.0004056

- Skyler Palatnick, **Demis John**, Maxwell Millar-Blanchaer, "Investigating pathways for deep-UV photolithography of large-area nanopost-based metasurfaces with high feature-size contrast," *Journal of Vacuum Science & Technology B*, vol. 42, no. 6, Oct. 2024. DOI: 10.1116/6.0003947
- Amirreza Alizadeh, Utku Soylu, Logan Whitaker, Biljana Stamenic, **Demis D John**, Munkyo Seo, Ahmed SH Ahmed, Mark JW Rodwell, "Planar 200-GHz Transceiver Modules," *IEEE Journal of Solid-State Circuits*, vol. 60, iss. 1, pp. 230-243, Jan. 2025. DOI: 10.1109/JSSC.2024.3451337
- Skyler Palatnick, Lorenzo König, Maxwell Millar-Blanchaer, J Kent Wallace, Eugene Serabyn, Dimitri Mawet, Niyati Desai, **Demis John**, Jon A Schuller, "Optimizing metasurfaces to achieve deeper direct imaging contrasts: analyses of current performance and lessons learned from fabrication," *Advances in Optical and Mechanical Technologies for Telescopes and Instrumentation VI*, vol. 13100, pp. 1733-1753, Aug. 2024. DOI: 10.1117/12.3018594
- Anna Wirth-Singh, Johannes E. Fröch, Fan Yang, Louis Martin, Hualiang Zheng, Hualiang Zhang, Quentin T. Tanguy, Zhihao Zhou, Luocheng Huang, **Demis John**, Biljana Stamenic, Juejun Hu, Tian Gu, Arka Majumdar, "Wide field of view large aperture meta-doublet eyepiece," *Light: Science & Applications*, vol. 14, article 17, Jan. 2025. DOI: 10.1038/s41377-024-01674-0
- Jens-Uwe Kuhn, **Demis John**, "Building a Micro/Nanotechnology Cleanroom Training," *Journal of Advanced Technological Education*, 2024, vol. 3, no. 1, March 2024. DOI: 10.5281/zenodo.10881533
- Jens-Uwe Kuhn, **Demis John**, "Establishing and Engaging Collaborative Partnerships for Sustainable Technician Training Project Implementation," *Journal of Advanced Technological Education*, 2024, 3, 2, pp. 126, 2024. DOI: 10.5281/zenodo.13621685
- Skyler Palatnick, Lorenzo König, Maxwell Millar-Blanchaer, J Kent Wallace, Olivier Absil, Dimitri Mawet, Niyati Desai, Daniel Echeverri, **Demis John**, Jon A Schuller, "Prospects for metasurfaces in exoplanet direct imaging systems: from principles to design," *Techniques and Instrumentation for Detection of Exoplanets XI*, Volume 12680, pp. 226-239, May 2023. DOI: 10.1117/12.2677834
- Alex M Potts, Abhay K Nayak, Michael Nagel, Kelson Kaj, Biljana Stamenic, **Demis D John**, Richard D Averitt, Andrea F Young, "On-chip time-domain terahertz spectroscopy of superconducting films below the diffraction limit," *Nano Letters* 23 (9), 3835-3841. DOI: 10.1021/acs.nanolett.3c00412
- Weicheng You, Sarvagya Dwivedi, Imad I Faruque, **Demis D John**, Anthony P McFadden, Christopher J Palmstrøm, Larry A Coldren, Shamsul Arafin, "Towards GaSb-Based Monolithically Integrated Widely-Tunable Lasers for Extended Short-and Mid-Wave Infrared Wavelengths," *IEEE Journal of Quantum Electronics*, vol. 59, no. 1, pp. 1-9, Feb. 2023, Art no. 2000309. DOI: 10.1109/JQE.2023.3236395
- M. Yamagata, N. Cao, **D. D. John**, H. Hashemi, "Surface-Acoustic-Wave Waveguides for Radio Frequency Signal Processing," *IEEE Transactions on Microwave Theory and Techniques*, vol. 71, iss. 3, pp. 931-944, March 2022. DOI: 10.1109/TMTT.2022.3222395
- Chandan Samanta, Sergio De Bonis, Roger Tormo, Christoffer Moller, Wei Yang, Carles Urgell, Biljana Stamenic, Brian Thibeault, **Demis D John**, Ning Cao, David Czaplewski, Fabio Pistolesi, Adrian Bachtold, "Strong anharmonicity in a carbon nanotube electromechanical oscillator populated with a few tens of quanta," *APS March Meeting Abstracts*, pp. N12.012, 2022. Online
- Eduardo Hirata Miyasaki, Gustav Pettersson, Antone Bajor, Kaitlyn Fouke, **Demis D. John**, Brian J. Thibeault, Gal Haspel, Jennifer Morgan, Sara Abrahamsson, "Ultrafast Live 3D Imaging with 25-plane Camera Array Multifocus Microscopy," *Conference: Imaging Systems and Applications*, paper IW1C.2, July 2022. DOI: 10.1364/ISA.2022.IW1C.2

- William J. Mitchell, Brian J. Thibeault, **Demis D. John**, Thomas E. Reynolds, "Highly selective and vertical etch of silicon dioxide using ruthenium films as an etch mask," *Journal of Vacuum Science & Technology A: Vacuum Surfaces and Films*, vol. 39, iss. 4, pp. 043204, July 2021. DOI: 10.1116/6.0001030
- Warren Jin, **Demis D John**, Jared F Bauters, Tony Bosch, Brian J Thibeault, John E Bowers, "Deuterated silicon dioxide for heterogeneous integration of ultra-low-loss waveguides," *Optics Letters*, vol. 45, iss. 12, pp. 3340-3343, June 2020.
- Eduardo Hirata-Miyasaki, Gustav M Pettersson, Khant Zaw, **Demis D John**, Brian Thibeault, Brandon Lynch, Juliana Hernandez, Sara Abrahamsson, "Camera-Array 25-Plane Multifocus Microscope For Ultrafast Live 3d Imaging," *CLEO: Applications and Technology*, paper JW3P.4, May 2020.
- Eduardo Hirata Miyasaki, Gustav M Pettersson, Khant Zaw, **Demis D John**, Brian Thibeault, Brandon Lynch, Juliana Hernandez, Sara Abrahamsson, "25 plane multifocus microscopy for fast and live 3D imaging," *SPIE Conference on Neural Imaging and Sensing 2020*, SPIE Proceedings Volume 11226, pg. 1122602, March 2020.
- Bo Wang, Sisi Yang, Yu Wang, Ragib Ahsan, Xiaowei He, Younghee Kim, Han Htoon, Rehan Kapadia, **Demis D John**, Brian Thibeault, Stephen K Doorn, Stephen B Cronin, "Auger Suppression of Incandescence in Individual Suspended Carbon Nanotube pn-Junctions," *ACS Applied Materials & Interfaces*, vol. 12, iss. 10, pp. 11907-11912, Feb. 2020.
- Vijaysekhar Jayaraman, Stephen Segal, Fredrick Towner, Kevin Lascola, Borys Kolasa, **Demis John**, Anthony Cazabat, Christopher Burgner, "Room-Temperature Continuous-Wave Electrically Pumped 3.3 micron Vertical Cavity Laser," *The European Conference on Lasers and Electro-Optics (CLEO)*, Munich, Germany, August 2019.
- Shereen W. Hamdy, Takako Hirokawa, Philip Chan, Warren Jin, Victoria Rosborough, Eric Stanton, Andrew M Netherton, Marilyn Garza, Wendy Ibsen, **Demis D John**, John E Bowers, "Light-based educational outreach activities for pre-university students," *15th Conference on Education and Training in Optics and Photonics (ETOP)*, Quebec City, Quebec, Canada, Volume: Proceedings of SPIE 11143, paper 111432R, July 2019.
- Eduardo Hirata Miyasaki, Gustav Pettersson, **Demis D John**, Brian Thibeault, Khant Zaw, Brandon J Lynch, Juliana Hernandez, Sara Abrahamson, "Simultaneous 25 Plane 3D Live Imaging System for Neural Circuits," *Biophysical Journal*, vol. 116, iss. 3, pp. 442a, Feb. 2019.
- V. Jayaraman, C. Burgner, **D. John**, P. Heim, A.E. Cable, "Widely tunable swept source," *U.S. Patent 9,774,166*, 2017.
- V. Jayaraman, C. Burgner, **D. John**, B.M. Potsaid, A.E. Cable, "Tunable laser array system," *US Patent 9,696,132*, 2017.
- **D. D. John**, B. Lee, B. Potsaid, A. C. Kennedy, M. E. Robertson, C. B. Burgner, A. E. Cable, J. G. Fujimoto, and V. Jayaraman, "Single-Mode and High-Speed 850nm MEMS-VCSEL," Presented at *Advanced Solid-State Lasers*, Boston, MA, USA, paper AT4A.2, Nov. 2016.
- **D. D. John**, C. Burgner, B. Potsaid, M. Robertson, B. Lee, W. J. Choi, A. E. Cable, J. Fujimoto, and V. Jayaraman, "Wideband Electrically-Pumped 1050 nm MEMS-Tunable VCSEL for Ophthalmic Imaging," *Journal of Lightwave Technology*, vol. 33, no. 16, pp. 1-1, Feb. 2015.
- V. Jayaraman, J. Jiang, B. Potsaid, M. Robertson, P. J. S. Heim, C. Burgner, **D. D. John**, G. D. Cole, I. Grulkowski, J. G. Fujimoto, A. Davis, and A. E. Cable, "VCSEL-Based Swept Light Sources for OCT," in *Optical Coherence Tomography Technology and Applications*, 2nd ed., chapter 23, W. Drexler and J. G. Fujimoto, Eds., Springer-Verlag Berlin Heidelberg, 2015, pp. 1-33.

- V. Jayaraman, **D. D. John**, C. Burgner, M. E. Robertson, B. Potsaid, J. Y. Jiang, T. H. Tsai, W. Choi, C. D. Lu, P. J. S. Heim, J. G. Fujimoto, and A. E. Cable, "Recent advances in MEMS-VCSELs for high performance structural and functional SS-OCT imaging," presented at *SPIE BiOS, 2014*, vol. 8934, pp. 893402-893402-11, Mar. 2014.
- V. Jayaraman, G. D. Cole, M. Robertson, C. Burgner, **D. D. John**, A. Uddin, and A. Cable, "Rapidly swept, ultra-widely-tunable 1060 nm MEMS-VCSELs," *Electronics Letters*, vol. 48, no. 21, Oct. 2012.
- Jared F. Bauters, Martijn J. R. Heck, Daoxin Dai, **Demis D. John**, Jonathon S. Barton, Daniel J. Blumenthal, and John E. Bowers, "High Extinction, Broadband, and Low Loss Planar Waveguide Polarizers," presented at *Integrated Photonics Research 2012*, Colorado Springs, Colorado, United States, Paper ITu2B.2, Jun. 19 2012.
- **D. D. John**, R. Moreira, J. S. Barton, J. F. Bauters, M. J. R. Heck, J. E. Bowers, and D. J. Blumenthal, "Demonstration of Etch-less Core Definition Process for Low-Loss Glass Waveguide Fabrication," in *European Conference on Integrated Optics*, Sitges, Barcelona, Spain, paper 129, Apr. 2012.
- J. F. Bauters, M. J. R. Heck, **D. D. John**, J. S. Barton, D. J. Blumenthal, J. E. Bowers, C. M. Bruinink, A. Leinse, and R. G. Heideman, "A Comparison of Approaches for Ultra-Low-Loss Waveguides," *Proc. of OFC/NFOEC 2012*, Los Angeles, CA, Paper OTu1I.3, Mar. 2012.
- **D. D. John**, M. J. R. Heck, J. F. Bauters, R. Moreira, J. S. Barton, J. E. Bowers, and D. J. Blumenthal, "Multi-Layer Platform for Ultra Low Loss Waveguide Applications," *IEEE Photonics Technology Letters*, vol. 24, no. 11, pp. 676-678, Apr. 2012.
- J. F. Bauters, M. J. R. Heck, **D. D. John**, J. S. Barton, C. M. Bruinink, A. Leinse, R. G. Heideman, D. J. Blumenthal, and J. E. Bowers, "Planar waveguides with less than 0.1 dB/m propagation loss fabricated with wafer bonding," *Optics Express*, vol. 19, no. 24, pp. 24090-24101, Nov. 2011.
- J. F. Bauters, M. J. R. Heck, **D. D. John**, J. S. Barton, D. J. Blumenthal, J. E. Bowers, C. M. Bruinink, A. Leinse, and R. G. Heideman, "Ultra-Low-Loss (< 0.1 dB/m) Planar Silica Waveguide Technology," in *IEEE Photonics Conference 2011*, Arlington, Virginia, USA, 2011.
- J. F. Bauters, M. J. R. Heck, **D. D. John**, M.-C. Tien, W. Li, J. S. Barton, D. J. Blumenthal, J. E. Bowers, A. Leinse, and R. G. Heideman, "Ultra-low-loss Single-mode Silicon Nitride Waveguides with 0.7 dB/m Propagation Loss," *European Conference on Optical Communication (ECOC) 2011 Technical Digest*, paper Th.12.LaSaleve.3, Jul. 2011.
- **D. D. John**, J. F. Bauters, J. Nedy, W. Li, R. Moreira, J. S. Barton, J. E. Bowers, and D. J. Blumenthal, "Fabrication and Demonstration of a Pure Silica-Core Waveguide Utilizing a Density-Based Index Contrast," *Proc. of OFC/NFOEC 2011*, Los Angeles, California, U.S.A., paper OWS3, Mar. 2011.
- J. F. Bauters, M. J. R. Heck, **D. D. John**, D. Dai, M. C. Tien, J. S. Barton, A. Leinse, R. G. Heideman, D. J. Blumenthal, and J. E. Bowers, "Ultra-low-loss high-aspect-ratio Si₃N₄ waveguides," *Optics Express*, vol. 19, no. 4, pp. 3163-3174, Feb. 2011.
- J. F. Bauters, M. J. R. Heck, **D. D. John**, M. Tien, A. Leinse, R. G. Heideman, D. J. Blumenthal, and J. E. Bowers, "Ultra-low loss silica-based waveguides with millimeter bend radius," *Proceedings of European Conference on Optical Communication (ECOC) 2010*, Torino Italy, Paper We.8.E.6, Sep. 2010.