

CURRICULUM VITAE

NAN MARIE JOKERST

J.A. JONES PROFESSOR
OF ELECTRICAL AND COMPUTER ENGINEERING

EXECUTIVE DIRECTOR, DUKE UNIVERSITY SHARED MATERIALS
INSTRUMENTATION FACILITY (SMIF)
CLEANROOM AND CHARACTERIZATION LABORATORIES

DUKE UNIVERSITY
DURHAM, NC 27708

EDUCATION

1989	Univ. Southern California	<i>Ph.D. Electrical Engineering</i>
1984	Univ. Southern California	<i>M.S. Electrical Engineering</i>
1982	Creighton University	<i>B. S. Physics</i>

EMPLOYMENT HISTORY

2004-present	J. A. Jones Professor	<i>Duke University</i>
	Electrial and Computer Engineering (ECE)	
2005-present	Executive Director, Shared	
	Materials Instrumentation Facility	<i>Duke University</i>
2017-2023	Associate Dean, Pratt School of Engineering	
		<i>Duke University</i>
2003-2004	Professor, ECE	<i>Duke University</i>
2001-2003	Joseph M. Pettit Professor of	
	Optoelectronics	<i>Georgia Institute of Technology</i>
1999-2001	Professor, ECE	<i>Georgia Institute of Technology</i>
1994-1999	Associate Professor, ECE	<i>Georgia Institute of Technology</i>
1989-1994	Assistant Professor, ECE	<i>Georgia Institute of Technology</i>
1983-1989	Research Assistant	<i>University of Southern California</i>
1982, 1983	Summer Intern	<i>IBM T. J. Watson Research Laboratories</i>
1980-1982	Teaching Assistant	<i>Creighton University</i>

HONORS AND AWARDS

- Chair, Duke Academic Council, 2015-2017, elected.
- National Academies Board on Global Science and Technology, 2010-2014.
- Executive Committee, Duke Academic Council, 2011-2013, elected.
- Advisor to recipient of Duke ECE Best Thesis Award, Sabarni Palit, 2012.
- IEEE Sensors Best Paper Runner Up Award, 2008.
- IEEE LEOS Vice President for Technical Activities, 2005-2007.
- University of Southern California Alumni in Academia Award, Viterbi School of Engineering, 100th Year Celebration, 2006.
- Featured on cover and inside of Society of Photo-Instrumentation Engineers “Women in Optics” calendar, 2005.
- US State Department/National Academies: US – Japan Global Dialogue on Emerging Science and Technologies: Sensors and Sensor Networks, Tsukuba, Japan, 2005.
- IEEE Fellow, 2003.
- IEEE/Hewlett Packard Harriet B. Regis Medal in Education, 2002.
- Optical Society of America Fellow, 2000.
- IEEE Third Millennium Medal, 2000.
- Senior Member, Institute of Electrical and Electronic Engineers, 1998.
- Research Director, NSF Engineering Research Center in Packaging, 1998-2000.
- Co-Advisor to recipient of Sigma Xi Best Thesis Award, Carrie Carter-Coman, 1997.
- Elected to IEEE Atlanta Section: Secretary, 1995; Treasurer, 1996; Vice-Chair, 1997; Chair, 1998.
- Chair, Optical Society of America Engineering Council, and ex-officio Member of OSA Board of Directors, 1998-1999.
- IEEE Lasers and Electro-Optics Society Vice President for Conferences, 1998-1999.
- Elected to IEEE Lasers and Electro-Optics Society Board of Governors, 1996-1998.
- Advisor to recipient of Sigma Xi Best Thesis Award, Elizabeth Twyford, 1996.
- Inaugural National Academy of Engineering “Frontiers of Engineering,” 1995.
- Best Teacher, Electrical Engineering, Georgia Tech, 1990 (student vote).
- Eta Kappa Nu C. Holmes McDonald Outstanding Teaching Award 2nd place, 1992, 1993.
- Presidential Young Investigator Award, National Science Foundation, 1990.
- E. I. DuPont Young Professor Award, Georgia Institute of Technology, 1989.
- Newport Research Award, Optical Society of America, 1986-1988.
- Hewlett Packard Fellow, American Education Association, 1983-1987.

EXPERT WITNESS AND LEGAL CONSULTING WORK

1. Law Firm: Akin, Gump, Strauss, Hauer and Feld, LLC, representing Epistar
Technical Consulting: Expert Witness, 2006
Certain High-Brightness Light Emitting Diodes and Products Containing Same
Lumileds Lighting US, LLC, vs. Epistar Corporation
2. Law Firm: Brinks, Hofer, Gilson, & Lione, representing Muhlbauer, Inc. and TEMA Gmbh
Technical Consulting: Expert Witness, 2009
KBA-Giori, North America, Inc., v. Muhlbauer, Inc. and TEMA Gmbh
3. Law Firm: Brinks, Hofer, Gilson, & Lione, representing Muhlbauer, Inc. and TEMA Gmbh
Technical Consulting: Expert Witness, 2009-2010
KBA-Giori, North America, Inc., v. Muhlbauer, Inc. and TEMA Gmbh
4. Law Firm: Kekker and Van Nest, LLP, representing TSMC
Technical Consulting: Expert Witness, 2011-2014
Ziptronix, Inc. v. Omnivision Technologies, Inc., Taiwan Semiconductor Manufacturing Company, Ltd., and TSMC
5. Law Firm: O'Melveny & Myers LLP
Technical Consulting: 2015
6. Law Firm: Fish and Richardson, LLP, representing Infinera
Technical Consulting: Expert Witness, Non-Infringement, 2017-2018
Oyster Optics, LLC v. Coriant America Inc., Infinera Inc., Alcatel-Lucent Inc., Fujitsu Network Communications Inc., Cisco Systems Inc., Huawei Technologies, Co., Ltd.
Case No. 2:16-CV-1302, Case No. 2:16-cv-01295
7. Law Firm: Fish and Richardson, LLP, representing NEC and Nokia; and Alston and Bird for Domestic Industry
Technical Consulting: Expert Witness, 2017-2018
Xtera, Inc. v. Nokia and NEC
"Certain subsea telecommunications systems and components thereof"
ITC Docket No. 337-TA-1098
Case No. 7:17-cv-00175 (N.D. Tex)
8. Law Firm: Fish and Richardson, LLP, representing Infinera
Technical Consulting: Expert Witness, Non-Infringement, 2019
Oyster Optics, LLC v. Infinera Corporation
Civil Action Nos. 2:18-cv-00206-JRG and 2:16-cv-01295-JRG (E.D. Tex)

9. Law Firm: Fish and Richardson, LLP, representing NEC
Technical Consulting: Expert Witness, Invalidity and Non-Infringement, 2019
Xtera, Inc. v. NEC Corporation
Case No. 6:19-cv-00279, U.S. District Court for the Western District of Texas
10. Law Firms: Alston Bird (lead firm), representing Signify N.V. and Signify North America Corp.; McGuire Woods, representing Current Lighting Solutions, LLC; Duane Morris representing Acuity Brands Lighting, Inc.; Morgan Lewis representing General Electric Company Consumer Lighting (U.S.); Steptoe, representing Leedarson Lighting Co., Ltd and Leedarson America, Inc.; Intelinklaw representing MLS Co., Ltd., LEDVANCE GmbH, and LEDVANCE LLC (collectively “MLS/Ledvance”); Collectively, the “Luminaire Respondents.”
Technical Consulting: Expert Witness, Non-Infringement, 2019-2020
“Certain Light-Emitting Diode Products, Systems, and Components Thereof (III)”
ITC Docket No. Investigation No. 337-TA-1168
11. Law Firm: Mayer Brown, representing Lumileds
Technical Consulting: Expert Witness, Invalidity and Non-Infringement, 2020-2021
E. Fred Schubert v. Lumileds, LLC
Case No. C.A. No. 1:12-cv-924-MN, U.S. District Court Delaware
12. Law Firm: Alston & Bird, representing Signify North America Corp.
Technical Consulting: Expert Witness, Invalidity and Non-Infringement, 2021-2022
Signify North America Corp. and Signify Netherlands B.V. in Satco Products, Inc case
Case No. 6:21-cv-00146, U.S. District Court for the Western District of Texas
13. Law Firm: Alston & Bird, representing Signify North America Corp. and Signify Netherlands B.V.
Technical Consulting: Expert Witness, Invalidity and Non-Infringement, 2021-2022
Signify North America Corporation, Signify Holding B.V. and Signify N.V. in LedComm LLC case
Case No. Case No. 6:20-cv-01056, U.S. District Court for the Western District of Texas
14. Law Firm: Desmarais, LLP, representing Samsung Electronics Co., Ltd., and Samsung Electronics America, Inc.
Technical Consulting: Expert Witness, 2022-present
LED Wafer Solutions LLC. V. Samsung Electronics Co., Ltd., Samsung Electronics American, Inc., and Seoul Semiconductor Co., Ltd.
Civil Action No. 6:21-cv-00292-ADA
15. Law Firm: Venable LLP, representing Signify North America Corporation
Technical Consulting: IPR, 2022-2023
Cao Lighting v. Signify Litigation

16. Law Firm: Alston & Bird, representing Signify North America Corp. and Signify Netherlands B.V.
Technical Consulting: Consultant and Expert, 2022-2023
Signify v. Shenzhen Intellirocks Co., Ltd. (“GoVee”)
17. Law Firm: Reichman Jorgensen Lehman & Feldberg LLP, representing Nichia Corp.
Technical Consulting: Expert for IPR, 2023-present
Nichia Corp. v. BX LED LLC
Case No. IPR2024-00542

OTHER TECHNICAL CONSULTING AND REVIEWS

1. Cypress Semiconductor, Inc.
Technical Consulting, Gb Ethernet Product Development, 2000-2002
2. Broadcom, Inc.
Technical Consulting, 2001
3. Windermere (National Security Agency contractor)
Technical Report and Analysis, 2006
4. American Society for the Advancement of Science (AAAS)
Technical Consulting: Research Competitiveness Program
Evaluation of Proposals, 2007
5. ABJ Integration Technologies, Inc.
SBIRs, technical consulting, 1993-present
6. National Science Foundation (NSF)
Written and Panel Proposal Reviewer, 1995 – present
7. National Institutes of Health (NIH), NIBIB
Written Proposal Reviewer, Ad Hoc Study Section Member, P41 Site Reviewer, 2008 – present
8. WCH Technologies, Inc.
Technical Consulting, 2009
9. Science Foundation of Ireland
Review of Irish Photonics Integration Centre (IPIC), paper 2013, on site 2015.
€15M program, 2013-2019
Chair of Site Review, 2015-2016
Member of IPIC Renewal Proposal Site Review, 2018
10. Army Research Office, Chair, Review Board for Materials Division Programs, May – June, 2017.

PROFESSIONAL ORGANIZATIONS AND SERVICE

- Chair, Duke Academic Council, elected, 2015-2017.
- Triangle Women in STEM Initiative, Co-Leader, Founding Member, 2016- present.
- Member, Duke Academic Council Executive Committee, elected, 2013-2014.
- Member, Duke Presidential Search Committee, 2016.
- Co-Lead, Duke Academic Council Faculty Diversity Task Force, 2014-2015.
- Chair, Duke Women in STEM, 2016-present.
- Research Triangle Nanotechnology Network, Co-Lead, 2015-present.
- Institute of Electrical and Electronic Engineers (IEEE), Student Member, 1983-1988, Member, 1989-1998, Senior Member, 1998-2002, Fellow, 2003-present.

IEEE National Activities:

- IEEE Proceedings Editorial Board, 2016-2019.

IEEE Activities, Photonics Society (formerly known as the Lasers and Electro-Optics Society (LEOS)):

- Board of Governors (elected), 1996-1998.
- Vice President for Conferences, 1998, 1999.
- Vice President for Technical Affairs, 2005-2007.
- IEEE LEOS Representative to IEEE Sensors Council, 2008-2009.
- IEEE LEOS Meetings Chair, 1997.
- Co-Editor, Journal of Special Topics on Quantum Electronics, Smart Pixels, 1996.
- Co-Editor, Journal of Special Topics on Quantum Electronics, Smart Photonics, 1998.
- Chair, IEEE Atlanta LEOS Section, 2002-2003.
- Member, IEEE LEOS Optical Interconnects and Signal Processing Systems Technical Committee, 2005-2006.
- Member, IEEE LEOS Integrated Optics and Optoelectronics Technical Committee, 2008-present.
- Member, IEEE LEOS Publications Council, 2008-2015.
- Member, IEEE Proceedings Editorial Board, 2013-present.
- Member, IEEE Photonics Fellow Evaluation Committee, 2016, 2020.
- IEEE Conference Activities:
 1. Program Committee Member, Special Symposium on Smart Pixels, IEEE LEOS Annual Meeting, San Jose, November, 1993.
 2. Program Committee Member, IEEE LEOS Summer Topical Meeting on Integrated Optoelectronics, Lake Tahoe, July, 1994.
 3. Program Committee Member, IEEE Lasers and Electro-Optic Society Summer Topical Meeting on Smart Pixels, Lake Tahoe, July, 1994.
 4. Program Committee Member, IEEE LEOS Annual Meeting, Guided Wave and Free Space Optical Interconnects, 1994.
 5. Program Committee Member, IEEE LEOS Annual Meeting, Optical Interconnection, 1995.

6. Program Committee Member, Conference on Lasers and Electro-Optics (CLEO), Baltimore, June, 1995.
7. Program Subcommittee Chair, Conference on Lasers and Electro-Optics (CLEO), Anaheim, 1996.
8. Program Chair, IEEE LEOS Summer Topical Meeting on Smart Pixels, Keystone, CO, July, 1996.
9. Program Committee Member, IEEE LEOS Annual Meeting, San Francisco, October, 1996.
10. Program Subcommittee Chair, Conference on Lasers and Electro-Optics (CLEO), Baltimore, June, 1997.
11. Program Committee Member, IEEE LEOS Annual Meeting, San Francisco, October, 1997.
12. Program Committee Member, Third Workshop on Massively Parallel Processing Using Optical Interconnect, Hawaii, October, 1996.
13. Program Committee Member, Fourth Workshop on Massively Parallel Processing Using Optical Interconnect, Vancouver, June, 1997.
14. General Chair, IEEE LEOS Summer Topical Meeting on Smart Pixels, Monterey, July 22-24, 1998.
15. Program Committee Member, IEEE LEOS Annual Meeting, Orlando, December, 1998.
16. Organizer and Committee Member, Workshop on Optoelectronic and Fiber Optic Packaging, Keystone, CO, September, 1999.
17. Program Committee Member, IEEE LEOS Summer Topical Meeting on Electronics-Enhanced Optics, Florida, July, 2000.
18. Program Committee Member, IEEE LEOS Annual Meeting, Sydney, Australia, October, 2005.
19. Program Committee Member, Indium Phosphide and Related Materials, May, 2006.
20. Program Committee Member, IEEE LEOS Annual Meeting, Newport Beach, CA, November, 2008.
21. Program Committee Member, IEEE LEOS Annual Meeting, Antalya, Turkey, October, 2009.

IEEE Activities, Local Sections:

- Program Chair, Atlanta Section of the IEEE Lasers and Electro-Optics Society (LEOS), 1992, 1993 (won most improved section award, 1992).
- Chair, Atlanta Section of the IEEE Lasers and Electro-Optics Society, 1994, 1995, 1998, 2002.
- Secretary (elected), Atlanta IEEE Section, 1995.
- Treasurer (elected), Atlanta IEEE Section, 1996.
- Vice Chair (elected), Atlanta IEEE Section, 1997.
- Chair (elected), Atlanta IEEE Section, 1998.
- Junior Past Chair, Atlanta IEEE Section, 1999.
- Senior Past Chair, Atlanta IEEE Section, 2000.
- Founding Member, Easter North Carolina Section, 2007.

- Optical Society of America (OSA), Student Member, 1983-1988, Member, 1989-2000, Fellow, 2000-present.

OSA Activities:

- Associate Editor, *Optica*, 2018- present.
- OSA Chair of Engineering Council, 1998-1999 (ex-officio Board of Directors).
- Engineering Council Member, 1996-2000; Vice Chair, 1997; Chair, 1998-1999, Past Chair, 2000.
- Richardson Award Committee Member, 2000.
- Editorial Advisory Board, Optics and Photonics News, 1992-1996.
- Newport Research Award Committee Member, 1991; Chair, 1992.
- New Focus Research Award Committee, 1998.
- Richardson Medal Committee Member, 2000.
- Richardson Medal Committee Chair, 2001.
- Member, OSA Strategic Planning Committee, 2001-present.
- National Inventor's Hall of Fame Review Board, 2000, 2001.
- Physics Resource Policy Committee, American Institute of Physics, OSA representative, 2005-2007.
- Ives/Quinn Medal Committee, Member, 2017.
- Iven/Quinn Medal Committee Chair, 2018.
- OSA Award Committee, Member, 2019, 2020.
- OSA Conference Activities:
 1. Program Committee Member, Optical Computing Conference, 1994.
 2. Program Committee Member, OSA Topical Meeting on Optical Computing, Salt Lake City, March 13-17, 1995.
 3. Program Chair, Symposium on Smart Pixels, OSA Annual Meeting, 1995.
 4. Program Committee Member, Integrated Photonics Research, Photonics Manufacturing, Packaging and Prototyping, March 29-April 3, Victoria, Canada, 1998.
 5. Program Committee Member, Conference on Optoelectronic Computing, Optical Society of America, 1998.
 6. Committee Member, Education and Training in Optics and Photonics, Cancun, Mexico, 1999.
 7. Committee Member and Presider, Optics in Computing Conference, 1999.

- Society of Photo Instrumentation Engineers (SPIE)

SPIE Activities:

- Program Committee Member, Optoelectronic Interconnects, Society for Photo Instrumentation Engineering International Symposium on Optoelectronics, San Jose, January 24-30, 1998.
- Program Committee Member, Smart Pixel Arrays and Applications, Society for Photo Instrumentation Engineering International Symposium on Optoelectronics, San Jose, January 24-30, 1998.

- Program Committee Member, Special Symposium on the Future of Optical Interconnection Technologies, Society for Photo Instrumentation Engineering International Symposium on Optoelectronics, 2001.
 - Program Committee Member, Special Symposium on Photodetectors, Photonics West, Society for Photo Instrumentation Engineering International, January, 2004.
 - Program Committee Member, Special Symposium on Photodetectors, Photonics West, Society for Photo Instrumentation Engineering International Symposium on Optoelectronics, January, 2005.
 - Program Committee Member, Special Symposium on Photodetectors, Photonics West, Society for Photo Instrumentation Engineering International Symposium on Optoelectronics, January, 2008.
- International Society for Hybrid Manufacturing (ISHM, and IMAPS), Member, National Technical Committee, Emerging Technologies, 1996-1999.
ISHM/IMAPS Activities:
 - Co-Chair, Optoelectronics and Sensors, Annual Meeting, 1994.
 - Chair, Optoelectronics Session, First Annual Symposium on Advanced Packaging, Atlanta, February 7-9, 1995.
 - General Conference Chair, Proceedings of the ISHM/IEPS Workshop on Optoelectronics, Ojai, February 20-22, 1995.
 - Conference Co-Chair, Optoelectronics II, 1995.
 - Co-Chair, Optoelectronic Materials, Materials Packaging Conference, Atlanta, February, 1995.
 - Presider, Microwave Materials Session, 4th International Symposium and Exhibition on Advanced Packaging Materials: Processes, Properties and Interfaces, Braselton, GA, March 15-18, 1998.
- Optics Industry Development Association, PTAP Advisory Board, 2000-2002.
 - Member, International National Electronics Manufacturing Industries (iNEMI) Optoelectronics Roadmap Committee, 1999-2003.
 - President, Creighton University Physics Club (elected), 1981-1982, Vice President (elected), 1980-1981.
 - Member, Pi Mu Epsilon, Mathematics Honor Society, 1982-Present.
 - Student Founder and Member, Sigma Pi Sigma, Physics Honor Society, Creighton University Chapter, 1982-Present.
 - Member, American Vacuum Society, 1989, Student Member, 1983-1988.
 - Member, Eta Kappa Nu, Engineering Honor Society, 1986-Present.
 - Member, Tau Beta Pi, Engineering Honor Society, 1986-present.
 - Member, American Society for Engineering Education, New Engineering Educator Representative from Georgia Tech, 1989.
 - Member, American Physical Society, Student Member, 1983-1988.
 - Member, National Electronics Manufacturing Industry Roadmap Team, Optoelectronics, 1998, 2000, 2002, 2004.

PUBLICATIONS

Thesis

Nan Marie Jokerst, "Nonlinear Optical Absorption in Single Heterostructure Schottky Barrier Structures," Ph.D. dissertation, University of Southern California, May, 1989. Advisor: Dr. Elsa Garmire.

Book Chapters

1. Jokerst, N. M., "Epitaxial Lift Off," Modern Compound Semiconductor Technology and Devices; Materials Science and Process Technology Series (P. Holloway and G. McGuire, editors), New Jersey, Noyes Publications, pp. 518-562, 1995.
2. Jokerst, N. M., "Hybrid Integrated Optoelectronics: Thin Film Devices Bonded to Host Substrates," Emerging Optoelectronic Technologies and Applications, (Y. H. Lo, editor), New Jersey, World Scientific, pp. 93-124, 1997, photograph from Jokerst/Brooke research featured as front cover of book.
3. Jokerst, N. M., Twyford, E., Laskar, J., Wills, D. S., "Packaging of Optoelectronics with Electronics," Microelectronics Packaging Handbook (R. Tummala and E. Rymaszewski, editors), New York, Van Nostrand Publishers, pp. III483-III528, 1997.

Journal Publications

1. M. Johnson and N. M. Jokerst, "Self-Detecting Light-Emitting Diode Optical Sensor," *Journal of Applied Physics*, vol. 56, pp. 869-871, Aug. 1, 1984.
2. N. M. Jokerst and E. M. Garmire, "The Depletion Region Electric Field Absorption Modulator," *Applied Physics Letters*, vol. 53, pp. 897-899, Sept. 5, 1988.
3. E. M. Garmire, N. M. Jokerst, A. Kost, A. Danner, and P. D. Dapkus, "Optical Nonlinearities Due to Carrier Transport in Semiconductors," in *Journal of the Optical Society of America B*, Vol. 6, No. 4, pp. 579-587, April, 1989.
4. C. Camperi-Ginestet, M. Hargis, N. Jokerst, M. Allen, "Alignable Epitaxial Lift Off of GaAs Materials with Selective Deposition Using Polyimide Diaphragms," *IEEE Photonics Technology Letters*, Vol. 3, No. 12, pp. 1123-1126, December, 1991.
5. G. Augustine, A. Rohatgi, N. Jokerst, "Base Doping Optimization for Radiation Hard Si, GaAs and InP Solar Cells," *IEEE Transactions on Electron Devices*, Vol. 39, No. 10, pp. 2395-2400, October, 1992.
6. C. Camperi-Ginestet, Y. W. Kim, N. M. Jokerst, M. G. Allen, and M. A. Brooke, "Three Dimensional Integrated Circuits: Epitaxial Lift Off GaAs Photodetectors Integrated Directly on Top of Silicon Circuits," *IEEE Photonics Technology Letters*, Vol. 4, No. 9, pp. 1003-1006, September, 1992.
7. E. J. Twyford, P. A. Kohl, N. M. Jokerst, and N. F. Hartman, "Increased Modulation of Submicron Grating Produced by Photoelectrochemical Etching of GaAs," *Applied Physics Letters*, Vol. 60, No. 20, pp. 2528 - 2530, May 18, 1992.

8. G. Augustine, N. Jokerst, A. Rohatgi, "Thin Film Single Crystal InP: Fabrication and Absorption Measurements," *Applied Physics Letters*, Vol. 61, No. 12, pp. 1429-1431, September 21, 1992.
9. K. H. Calhoun, C. B. Camperi-Ginestet, N. M. Jokerst, "Vertical Optical Communication Through Stacked Silicon Wafers Using Monolithically Integrated Thin Film Semiconductor Emitters and Detectors," *IEEE Photonics Technology Letters*, Vol. 5, No. 2, pp. pp. 254-257, February, 1993.
10. Calhoun, K. H., Jokerst, N. M., "Direct Measurement of Near Bandgap Electrorefraction in AlGaAs/GaAs/AlGaAs Thin Film Structure," *Applied Physics Letters*, Vol. 62, pp. 2673-2676, May 24, 1993.
11. Calhoun, K. H., Jokerst, N. M., "AlGaAs/GaAs/AlGaAs Thin Film Fabry Perot Modulator On Glass Substrate Using Alignable Epitaxial Liftoff," *Optics Letters*, Vol. 18, pp. 882-884, June 1, 1993.
12. Hargis, M., Brown, J., Carnahan, R., Jokerst, N. M., "Epitaxial Lift Off GaAs/AlGaAs Metal-Semiconductor-Metal Photodetectors with Back Passivation," *IEEE Photonics Technology Letters*, pp. 1210-1212, October, 1993.
13. Jokerst, N. M., "Parallel Processing: Into the Next Dimension," Optical Society of America, *Optics and Photonics News*, Vol. 5, No. 4, pp. 8-14, April, 1994, Invited Cover Story.
14. Wilkinson, S., Kim, Y. W., Jokerst, N., and Allen, M., "Integration of Thin Film Optoelectronic Devices Onto Micromachined Movable Platforms," *IEEE Photonics Technology Letters*, Vol. 6, No. 4, pp. 1115-1118, September, 1994.
15. Wills, D. S., Lacy, W. S., Camperi-Ginestet, C., Buchanan, B., Jokerst, N. M., Brooke, M. A., "A Fine-Grain, High-Throughput Architecture Using Through-Wafer Optical Communication," *IEEE Journal of Lightwave Technology*, Vol. 13, No. 4, pp. 1085-1092, June, 1995.
16. E. Twyford, T. Tayag, N. M. Jokerst, "A Pixellated Grating Array Using Photoelectrochemical Etching on a GaAs Waveguide," *IEEE Photonics Technology Letters*, Vol. 7, No., 7, pp. 766-768, July, 1995.
17. Augustine, G., Rohatgi, A., Jokerst, N., R. Dhere, "Concentration Dependent Near and Above Band Edge Absorption in Doped InP and Its Effect on Solar Cell Modeling," *Journal of Applied Physics*, Vol. 78, No. 4, pp. 2666-2670, August 15, 1995.
18. Elizabeth J. Twyford, Carrie A. Carter, Nan Marie Jokerst, and Paul A. Kohl, "The influence of aluminum concentration on photoelectrochemical etching of first order gratings on GaAs/AlGaAs," *Applied Physics Lett.*, Vol. 67, No. 9, pp. 1182-1184, August 28, 1995.
19. S. Wilkinson, N. M. Jokerst, R. Leavitt, "Resonant Cavity Enhanced Thin Film AlGaAs/GaAs/AlGaAs LEDs with Metal Mirrors," *Applied Optics*, Vol. 34, No. 36, pp. 8298 - 8302, December 20, 1995.
20. N. M. Jokerst, C. Camperi-Ginestet, B. Buchanan, S. Wilkinson, M. Brooke, "Communication Through Stacked Silicon Circuitry Using Integrated Thin Film InP-Based Emitters and Detectors," *IEEE Photonics Technology Letters*, Vol. 7, No. 9, pp. 1028-1030, September, 1995.

21. S. Fike, B. Buchanan, N. M. Jokerst, M. Brooke, T. Morris, S. DeWeerth, "8 X 8 Array of Thin Film Photodetectors Vertically Electrically Interconnected to Silicon Circuitry," *IEEE Photonics Technology Letters*, Vol. 7, No. 10, pp. 1168-1170, October, 1995.
22. O. Vendier, N. M. Jokerst, R. Leavitt, "High Performance Thin Film Inverted MSM Photodetectors," *IEEE Photonics Technology Letters*, Vol. 8, No. 2, pp. 266-268, February, 1996.
23. H. Chou, A. Rohatgi, N. Jokerst, S. Kamra, S. Stock, S. Lowrie, R. Ahrenkiel, and D. Levi, "An Approach Toward High Efficiency CdTe/CdS Heterojunction Solar Cells," *Journal of Materials Chemistry and Physics*, Vol. 43, pp. 178-182, 1996.
24. H. Chou, A. Rohatgi, N. M. Jokerst, E. Thomas, S. Kamra, "Cu Migration in CdTe Heterojunction Solar Cells," *Journal of Electronic Materials*, Vol. 25, No. 7, pp. 1093-1098, 1996.
25. C. Carter, A. Brown, R. Bicknell-Tassius, N. Jokerst, F. Fournier, D. Dawson, "Strain-Modulated Epitaxy: Modification of Growth Kinetics via Patterned, Compliant Substrates," *J. Vac. Sci. Tech. B.*, Vol. 14, No. 3, pp. 2170-2171, 1996.
26. C. Carter-Coman, A. Brown, R. Bicknell-Tassius, N. Jokerst, M. Allen, "Strain-Modulated Epitaxy: A Flexible Approach to 3-D Band Structure Engineering Without Surface Patterning," *Appl. Phys. Lett.* Vol. 69, No. 2, pp. 257-259, 1996.
27. O. Vendier, N. M. Jokerst, R. Leavitt, "High Efficiency Inverted GaAs-Based MSM Photodetectors," *Electronics Letters*, Vol. 32, No. 4, pp. 394-395, Feb. 15, 1996.
28. N. Jokerst, M. Brooke, O. Vendier, S. Wilkinson, S. Fike, M. Lee, E. Twyford, J. Cross, B. Buchanan, S. Wills, "Thin Film Multimaterial Optoelectronic Integrated Circuits," *IEEE Transactions on Components, Packaging, and Manufacturing Technology, Part B*, Vol. 19, No. 1, pp. 97-106, February, 1996, Invited.
29. C. Carter-Coman, A. Brown, N. Jokerst, D. Dawson, R. Bicknell-Tassius, Z. Feng, K. Rajkumar, G. Dagnall, "Strain Accomodation in Mismatched Layers by Molecular Beam Epitaxy: Introduction of a New Compliant Substrate Technology," *J. Electron. Mat.*, Vol. 25, No. 7, pp. 1044-1047, 1996.
30. N. Jokerst, "Integrated Optoelectronics Using Epitaxial Liftoff Materials and Devices," *The International Journal of Nonlinear Optical Physics and Materials*, Vol 6, No. 1, p. 1-30, 1996, Invited.
31. N. Evers, O. Vendier, C. Chun, M. R. Murti, J. Laskar, N. M. Jokerst, T. S. Moise, and Y.-C. Kao "Thin Film Pseudomorphic AlAs/In_{0.53}Ga_{0.47}As/InAs Resonant Tunneling Diodes Integrated onto Si Substrates" *IEEE Electron Device Letters*, Vol. 17, No. 9, pp. 443-445, September, 1996.
32. J. Cross, B. Buchanan, L. Carastro, A. Lopez-Lagunas, Tony Wang, N. Jokerst, M. Brooke, S. Wills, M. Ingram, "A Single Fiber Bi-Directional Optical Link Using Co-Located Emitters and Detectors," *IEEE Phot. Tech. Lett.*, Vol. 8, No. 10, pp. 1385-1387, October, 1996.
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145. Sabarni Palit, Jeremy Kirch, Luke Mawst, Thomas Kuech, Nan Jokerst, "Thin Film P-Ridge N-Stripe III-V Laser Broad Area Metal-Metal Bonded to Silicon," Conference on Electro-Optics and Lasers (CLEO), Paper JWA38, Baltimore, MD, May 31-June 5, 2009.
146. Y. Tsai, A. Degiron, N. Jokerst, D. Smith, "Plasmonic Multimode Interference (MMI) Couplers," Plasmonics in Biology and Medicine VI, Society of Photoinstrumentation Engineers BiOS Biomedical Optics Symposium, Paper number 7192-43, San Jose, CA, Jan 24-29, 2009.
147. G. Ybarra, L. Collins, L. Huettel, H. Massoud, J. Board, M. Brooke, N. Jokerst, R. Roy Choudhurt, M. Gustafson, R. Willett, K. Coonley, "Integrating Sensing and Information Processing in an Electrical and Computer Engineering Undergraduate Curriculum," Proceedings of the Frontier of Education (FIE) Conference, 2009, Oct 18-21, pp. 1-7.
148. S. Palit, G. Tsvid, J. Kirch, Y. Huang, T. Tyler, S. Cho, N. Jokerst, L. Mawst, T. Kuech, "Top-Bottom Stripe Thin Film InGaAs/GaAsP Laser Integrated on Silicon," Device Research Conference, 2008, pp. 137-138, June 23-25, 2009.
149. S. Palit, J. Kirch, L. Mawst, T. Kuech, N. Jokerst, "Integration of III/V Thin Film Edge Emitting Lasers on Silicon," International Symposium on Microwave and Optical Technologies, New Delhi, India, December, 2009.
150. S. Dhar, A. Degiron, D. Smith, N. Jokerst, " Integrated Dielectric-Plasmonic-Dielectric Waveguide End-fire Coupler for Sensing Applications," International Symposium on Microwave and Optical Technologies, New Delhi, India, December, 2009.
151. S. Palit, J. Kirch, L. Mawst, N. Jokerst, "Thin-film lasers embedded in passively aligned SU-8 waveguides on SiO₂/Si," Proceedings of the Conference on Lasers and Electro-Optics (CLEO), May 16-21, 2010
152. S. Palit, J. Kirch, L. Mawst, T. Kuech, N. Jokerst, "Heterogeneous integration of thin film compound semiconductor lasers and SU8 waveguides on SiO₂/Si," Proceedings of the SPIE, Vol. 7607, Feb 15, 2010.
153. N. Jokerst, S. Palit, J. Kirch, G. Tsiv, L. Mawst, T. Kuech, "Thin film edge emitting lasers integrated onto Silicon," Proceedings of the SPIE, V. 7616, 76160S, Feb 15, 2010.
154. T. Driscoll, D. Basov, M. di Ventra, H. Kim, B. Chae, N. Jokerst, S. Palit, D. Smith, "Experimental demonstration of memory capacitance and memory resistance in VO₂ devices," American Physical Society March Meeting, Mar 15-19, 2010, #Z24.004.

155. D. Basov, T. Driscoll, M. di Ventra, H. Kim, Y. Lee, S. Palit, D. Smith, N. Jokerst, "Persistent Tuning of Metamaterials," American Physical Society March Meeting, Mar 15-19, 2010, #B14.001.
156. Peter Dudley, Jeremy Kirch, Toby Garrod, Sangho Kim, Luke Mawst, Katie Radavich, Steven Ruder, Thomas Kuech, Sabarni Palit, Nan Jokerst, "InxGa1-xAs Metamorphic Buffer Layers for Lattice Mismatched Multi-Junction Solar Cells" Electronic Materials Conference, J2, June 23-25 2010, Notre Dame, Indiana.
157. Y. Tsai, S. Larouche, G. Lipworth, J. Mock, N. Jokerst, D. Smith, "Metamaterial Blazed Gratings," Proceedings of the Conference on Lasers and Electro-Optics (CLEO), p. 1-2, Baltimore, MD, May 1-6, 2011.
158. M. Royal, R. Fair, N. Jokerst, "Integrated Sample Preparation and Sensing: Microresonator Optical Sensors Embedded in Digital Electrowetting Microfluidics Systems," IEEE Sensors 2011 Conference, paper 156, Limerick, Ireland, Oct. 28-31, 2011.
159. S. Dhar, J. Lo, B. Yu, T. Tyler, M. Brooke, T. Kuech, N. Ramanujam, N. Jokerst, "A custom wide-field spectral imager for breast cancer margin assessment," IEEE Photonics Annual Meeting, ThP2, Arlington, VA, Oct. 9-13, 2011.
160. S. Dhar, J. Lo, B. Yu, M. Brooke, N. Ramanujam, N. Jokerst, "Custom annular photodetector arrays for breast cancer margin assessment using diffuse reflectance spectroscopy," Proceedings of the Biomedical Circuits and System Conference (BioCAS), pp. 440-443, San Diego, CA, Nov 10-12, 2011.
161. T. Driscoll, M. Goldflam, N. Jokerst, D. Basov, D. Smith, "Spatial gradient tuning in metamaterials," Bulletin of the American Physical Society, APS Meeting 2011, Vol. 56, No. 1, Dallas, Tx, Mar. 21-25, 2011.
162. S. Larouche, Y. Tsai, T. Tyler, N. Jokerst, D. Smith, "Infrared Metamaterial Hologram," Proceedings of the Quantum Electronics and Laser Science Conference (QELS), San Jose, CA, May 6, 2012.
163. T. Tyler, S. Wolter, M. Royal, Y. Tsai, S. Larouche, D. Smith, N. Jokerst, "Fabrication of 3D Gradient Index of Refraction Diffractive Metamaterials for Infrared Gratings and Holograms," META12, Proceedings of the 3rd International Conference on Metamaterials, Photonic Crystals and Plasmonics," Paris, France, April 19-22, 2012.
164. W. Padilla, X. Liu, T. Tyler, A. Starr, T. Starr, N. Jokerst, "Metamaterials for Tailored Thermal Infrared Emission," META12, Proceedings of the 3rd International Conference on Metamaterials, Photonic Crystals and Plasmonics," Paris, France, April 19-22, 2012.
165. D. Smith, S. Larouche, Y. Tsai, T. Tyler, N. Jokerst, "Metamaterials for Diffractive Optics," META12, Proceedings of the 3rd International Conference on Metamaterials, Photonic Crystals and Plasmonics," Paris, France, April 19-22, 2012.
166. S. Larouche, Y. Tsai, T. Tyler, N. Jokerst, D. Smith, "Infrared Metamaterial Hologram," Proceedings of the Quantum Electronics and Laser Science Conference (QELS), San Jose, CA, May 6, 2012.
167. S. Dhar, N. Jokerst, "High responsivity, low dark current, large area, heterogeneously bonded annular thin-film silicon photodetectors," Proceedings of the IEEE Photonics Conference, TuT1, pp. 378-379, San Francisco, CA, Sept. 23-27, 2012. Invited Paper.

168. D. Smith, S. Larouche, Y. Tsai, N. Jokerst, T. Tyler, "Metamaterials Diffractive Optics," PECS-X, 10th International Symposium on Photonic and Electromagnetic Crystal Structures, Santa Fe, NM, June 3-8, 2012.
169. J. Lo, S. Dhar, B. Yu, M. Brooke, T. Kuech, N. Jokerst, N. Ramanujam, "Diffuse reflectance spectral imaging for breast tumor margin assessment," Proceedings of the Society for Photo Instrumentation Engineers, March 19, 2012. DOI 10.1117/12.909259.
170. Goldflam, T. Driscoll, M. Royal, T. Tyler, N. Jokerst, D. Smith, G. Seo, B. Kin, H. Kim, D. Basov, "Two-Dimensional Control over Gradient Index in a VO₂ Memory Metamaterial," Proceedings of the American Physical Society March Meeting 2013, Mar 18-22, 2013, Baltimore, MD.
171. Y. Tsai, T. Tyler, S. Larouche, A. Llopis, M. Royal, N. Jokerst, D. Smith, "Metamaterial Polarization Multiplexed Gratings," Proceedings of the Conference on Lasers and Electro-Optics (CLEO), QM4A.1, San Jose, CA, June 9-13, 2013.
172. Nichols B.S., Lo, J.Y., Dhar, S.S., Cervia, L.D., Brooke, M.A., Jokerst, N.M., Ramanujam, N. "Pressure optimized high-resolution diffuse reflectance spectral imaging for intra-operative margin assessment of breast tissue," ECI (13AO) Advances in Optics for Biotechnology, Medicine and Surgery, Lake Tahoe, CA, June 5-8, 2013.
173. O. Senlik, N. Jokerst, "Concentric Si Annual Photodiode Arrays for Spatially Resolved Diffuse Reflectance Spectroscopy," Proceedings of the Conference on Lasers and Electro-Optics (CLEO), AM2J.4, DOI 10.1364/CLEO_AT.2015.AM2J.4, San Jose, CA, May 10-15, 2015.
174. O. Senlik, N. Jokerst, "Concentric Multi-Pixel Photodiode Array Probes for Optical Tissue Characterization," Proceedings of the Optical Sensors meeting, Biomedical Optical Sensors, SeS1B, DOI: 10.1364/SENSORS.2015.SeS1B.1, Boston, MA, June 27-July 1, 2015.
175. O. Senlik, N. Jokerst, "Spatially Resolved Diffuse Reflectance Si Probes for Tissue Characterization Over a Wide Scattering Range," Proceedings of the 28th IEEE Photonics Conference, Reston, VA, October 4-8, 2015.
176. O. Senlik, C. Woods and N. M. Jokerst, "High pixel density concentric si spatially resolved diffuse reflectance probe: Wide absorption range phantom study," 2016 IEEE SENSORS, Orlando, FL, USA, 2016, pp. 1-3.
doi: 10.1109/ICSENS.2016.7808487.
177. Ozlem Senlik, Gage Greening, Timothy J. Muldoon, Nan M. Jokerst, "Spatially resolved diffuse reflectance spectroscopy of two-layer turbid media by densely packed multi-pixel photodiode reflectance probe," Proc. SPIE 9700, Design and Quality for Biomedical Technologies IX, 97000O (March 18, 2016); doi:10.1117/12.2213124.
178. U. Ohiri, K.Han, C.W. Shields, G. Lopez, N.M. Jokerst, O.D. Velez, "Development of a new generation of remotely powered self-propelling active particles," 90th American Chemical Society Colloid and Surface Science Symposium, June 5-8, 2016, Harvard University, Boston, MA, USA.
179. B. LaRiviere, N. Jokerst, "Concentric Silicon Thin Film Photodiode Arrays for Endoscopic Spatially Resolved Diffuse Reflectance Spectroscopy," accepted for presentation at the OSA Biophotonics Congress: Optics in the Life Sciences, April 2-5, 2017/2017.

180. B. LaRiviere, N Jokerst, "Custom Thin Film Si Photodiode Arrays for Endoscopic Spatially Resolved Diffuse Reflectance Measurements," in Conference on Lasers and Electro-Optics (CLEO), OSA Technical Digest, Optical Society of America, 2017, paper AW1A.3.
181. K. Han, C. Shields, T. Tyler, O. Velez, N. Jokerst, "Self-Propelling Active Particles & Self-Reconfiguring Assemblies from Remotely-Powered Thin Film Silicon Microdiodes," Bulletin of the American Physical Society, 2018.
182. P. Parker, N. Jokerst, J. Nelson, "Catalyzing Diverse Voices in STEM: A Women-Led Model of Social Change in a US-Based Research Park," International Communication Association, Prague, Czech Republic, May, 2018.
183. C. M. Woods, O. Senlik, N. M. Jokerst, "A Custom Multi-Pixel Photodetector Probe and Partial Least Squares Regression for the Efficient Identification of Optical Tissue Properties," Frontiers in Optics, JW4A.113, Rochester, NY, October, 2018.
184. A. Dighe, N. M. Jokerst, "Integrated Thin Film Silicon Detectors for Fluorescence Sensing," 2018 IEEE SENSORS, New Delhi, India, October 31, 2018.
185. Callie Woods, Ozlem Senlik, Gage Greening, Timothy Muldoon, Nan Jokerst, "Depth-Sensitive Tissue Measurements Using a Multi-Pixel Photodetector Probe," 2020 OSA Biophotonics Congress: Biomedical Optics (BioMed 2020), April 20-24, 2020.
186. Callie Woods, Ozlem Senlik, Nan Jokerst, "Tissue Characterization Using a Multi-Pixel Sensor System and Partial Least Squares Regression," 2020 OSA Optical Sensors and Sensing Congress, June 2020.
187. O. Khatib, T. Tyler, W. J. Padilla, N. M. Jokerst, and H. O. Everitt, "Strain Sensing with THz Metamaterial Composites," in Optical Sensors and Sensing Congress, OSA Technical Digest (Optical Society of America, 2020), paper SM4E.5.
188. Berube, D.M., Bogomoletc, E., Eng, N. et al. Social science and infrastructure networks and the human-technology interface. J Nanopart Res 22, 296; <https://doi.org/10.1007/s11051-020-05022-2> , 2020.
189. Khatib, O., Tyler, T., Padilla, W. J., Jokerst, N. M., & Everitt, H. O. (2021, July). Strain Mapping with THz Metamaterial Composites. In Optical Sensors (pp. STh2C-1). Optical Society of America.

Workshops Without Proceedings or Digest

1. E. Twyford, P. Kohl, N. Jokerst, N. Hartman, "The Resolution of Holographic Photoelectrochemical Etching of Sub-Micrometer Gratings," The American Chemical Society Annual Meeting, Sept., 1991.
2. C. Camperi-Ginestet, Y. W. Kim, S. Wilkinson, M. Allen and N. M. Jokerst, "Micro-Opto-Mechanical Devices and Systems Using Epitaxial Lift Off," The NASA Workshop on Micromechanical Systems, May, 1992.
3. Wilkinson, S., Kim, Y. W., Allen, M. G., Jokerst, N. M., "Integration of Thin Film Compound Semiconductor Photonic Devices Onto Micromachined Movable Platforms," The 7th International Conference on Solid State Sensors and Actuators, Yokohama, June, 1993.

4. N. M. Jokerst, "Hybrid Integration of Optoelectronic Arrays with Electronics," Digest of the Defense Advanced Research Projects Agency DSRC Optical Arrays and Packaging Workshop, July 17, 1992.
5. Jokerst, N. M., Allen, M. G., and Brooke, M. A., "Micro-Opto-Mechanical Systems," Prospector V: Microelectromechanical Systems and Their Applicability to the Soldier System, March 22-24, 1993, Park City, Utah.
6. N. M. Jokerst, "Thin Film Optoelectronic Integration," The Third NSF Workshop on Optoelectronic Packaging, Santa Barbara, July, 1993.
7. Jokerst, N. M., Brooke, M. A. and Allen, M. G., "Hybrid Smart Infrared Focal Plane Array Integrated in Three Dimensions," The Army Smart Infrared Focal Plane Array Workshop, July 26-28, 1993, Washington, D. C.
8. Jokerst, N. M., Allen, M. G., Brooke, M. A., Glezer, A. and Pearlstein, A., "Three Dimensional Optoelectronic Hardware for Distorted Wavefront Processing and MEMS-Based Flow Control for Aero-Optic Applications," The Air Force Office of Scientific Research Workshop on Aero-Optic Applications, Albuquerque, August 30-31, 1993.
9. Wang, Y., Fike, S., Allen, M. G., and Jokerst, N. M., "Measurement of Adhesion of GaAs Thin Films Using the Blister Test," The Annual Meeting of the Adhesion Society, Orlando, FL, February, 1994.
10. N. Jokerst, M. Brooke, M. Allen, D. S. Wills, "Multi-Material Integrated OEIC Systems," Proceedings of the Conference on Manufacturing Process Development in Photonics, Huntsville, Nov 1-2, 1994.
11. A. Brown, N. Jokerst, M. Brooke, S. Wills, and M. Allen, "Multi-Material Packaging for Optoelectronics and High Speed Electronics," The First Annual Symposium on Advanced Packaging, Atlanta, February 7-9, 1995.
12. N. M. Jokerst, "Thin Film Optoelectronic Devices Integrated Onto Silicon Circuits," The International Society of Hybrid Microelectronics Advanced Technology Workshop on Optoelectronics, Ojai, February 20-22, 1995.
13. Carter-Coman, C.A. , Brown, A.S., Jokerst, N.M., Dawson, D.E. Bicknell-Tassius, R., Feng, Z.C., Rajkumar, K.C., Dagnall, G., "Strain Accomodation in Mismatched Layers by Molecular Beam Epitaxy: Introduction of a New Compliant Substrate Technology," Electronic Materials Conference, Charlottesville, Va. June 1995.
14. Coman-Carter, Carrie, Brown, April, Bicknell-Tassius, Robert, Jokerst, Nan Marie, Fournier, Francoise, and Dawson, Douglas, "Strain-Modulated Epitaxy: Modification of Growth Kinetics via Patterned, Complaint Substrates," North American MBE Conference, College Park, Md. October 1995.
15. N. Jokerst, "The Frontiers of Three Dimensional Systems," FutureProbe, July 18-20, Atlanta, GA, 1995.
16. N. Evers, O. Vendier, C. Chun, M. R. Murti, J. Laskar, N. M. Jokerst, T. S. Moise, and Y.-C. Kao, "Thin Film InP-Based Electronics Integrated onto Silicon Host Substrates," The 38th Electronic Materials Conference, Santa Barbara, CA, June, 1996.
17. C. Carter-Coman, F. Fournier, A. S Brown, R. Bicknell-Tassius, and N. M. Jokerst, "Exploration of the Properties of GaAs and InP Compliant Substrates for Extension of the Critical Thickness and Strain-Modulated Epitaxy," The 38th Electronic Materials Conference, Santa Barbara, CA, June, 1996.

18. C. Carter-Coman, R. Bicknell-Tassius, A. S. Brown, and N. M. Jokerst, "Compliant Substrates for Reduction of Strain Relief in Mismatched Overlayers," The Materials Research Society Fall Meeting, Boston, MA, November, 1996.
19. Carter-Coman, C., Brown, A.S., and Jokerst, N.M, "Compliant Substrate Technology" Workshop On Compound Semiconductor Materials and Devices (WOCSEMMAD), San Antonio, TX, February 1997.
20. F. Fournier, A. S. Brown, R. A. Metzger, A. Doolittle, C. Carter-Coman, N. M. Jokerst, and R. Bicknell-Tassius, "Growth Dynamics of InGaAs/GaAs by MBE," The International MBE Conference, August 1996.
21. A. Brown, N. Jokerst, M. Brooke, T. Kuech, N. Ramanujam, "An Integrated Microsystem for Fluorescence-Based Sensing Based on Si Nanoparticles," *Global Perspective in Frontiers of Photonics: The Fitzpatrick Center Annual Symposium*, Duke University, Durham, NC, May, 2005.
22. N. Jokerst, M. Brooke, A. Shang, "Sensor miniaturization and health surveillance systems," *International Symposium on Innovations and Advancements in Monitoring Oxygenation and Ventilation (ISIAMOV 2007)*, Durham, NC, March 15-17, 2007.

SEMINARS, SPECIAL PRESENTATIONS, MEDIA COVERAGE (SELECTED)

1. N. Jokerst, "Optical Properties of Semiconductors," Creighton University, Omaha, Nebraska, June, 1989.
2. N. M. Jokerst, "Optics in Nature," SECME, April, 1990.
3. N. M. Jokerst, "Keeping Research and Teaching in Balance," New Faculty Orientation, 1990.
4. N. Jokerst, "Epitaxial Lift-off and Applications," Electrical Engineering Advisory Board Meeting, Optics Area, 1990.
5. N. M. Jokerst, "Women in Academia," Georgia Tech Society of Women Engineers, February, 1990.
6. N. M. Jokerst, "Teaching for Diversity in the Classroom," Lilly Teaching Fellows Seminar, 1990.
7. N. M. Jokerst, "Making Light of Optical Communications," Minority Undergraduate Research Program, Seminar Speaker, 1990.
8. N. M. Jokerst, "Lasers and Holography," SECME, 1990.
9. N. M. Jokerst, "Careers in Optics," Optics Area, for Career Day, 1990.
10. N. Jokerst, Digital Equipment Corporation Technical Seminar Series, "Optoelectronic Integration of GaAs and Si Materials Using Epitaxial Lift Off," 1991. This seminar was videotaped, is part of the Digital Video Library and is available for viewing upon request, Invited.
11. N. M. Jokerst, "It's a Wonderful Light: Integrated Optoelectronics at Georgia Tech," Electrical Engineering Graduate Student Seminar, December, 1991.

12. N. M. Jokerst, "Transitions: Going to Graduate School," Electrical Engineering Senior Seminar, 1991, 1992, 1993, 1994, 1995, 1996, 1997, 1998, 1999.
13. N. M. Jokerst, "Organizing a Course," Graduate Teaching Assistant Seminar (CETL) Speaker, 1991.
14. N. M. Jokerst, "Making Light of Optics," Georgia Tech Madison/Athens Showcase Speaker, 1991.
15. N. M. Jokerst, "Women in Electronics," After-dinner Speaker at the Women in Electronics Atlanta Chapter Scholarship Banquet, 1991.
16. N. M. Jokerst, "Life in College," Challenge Program, Office of Minority Education, September, 1991.
17. N. M. Jokerst, "Faculty Expectations and Relations," Connect with Tech, for accepted minority and female students, 1992.
18. N. Jokerst, "Epitaxial Lift Off for Integrated Optoelectronics," Lawrence Livermore National Laboratories, Livermore, CA, July, 1992.
19. N. Jokerst, "Thin Film Devices for Integrated Optoelectronics," Rockwell Thousand Oaks Research Center, Los Angeles, CA, July, 1992.
20. N. Jokerst, "Epitaxial Lift Off for Low Cost Telecommunications Links," Advanced Micro Devices, San Jose, CA, July, 1992.
21. N. Jokerst, "Thin Film Device Fabrication and Integration," IBM East Fishkill, NY, November, 1992.
22. N. M. Jokerst, "Fiber Optics," to students from Saint Joseph Middle School, 1992.
23. N. M. Jokerst, "Careers in Science," to Dunwoody High School students, 1992.
24. N. M. Jokerst, "Lasers in Science," Georgia Power/SECME Middle Grades Video Program to encourage students to pursue math and science, 1992.
25. N. M. Jokerst, "TQM at Georgia Tech," Speaker, Dean's TQM University Challenge, Ohio, 1992.
26. N. M. Jokerst, "Careers in Electrical Engineering," Panelist, EE Student Advisory Board/HKN/IEEE, 1992.
27. N. M. Jokerst, "Our New Challenges," After Dinner Speaker, Phi Kappa Phi Honor Society Fall Initiation Banquet, 1992.
28. N. Jokerst, "Bonding of Optoelectronic Devices for 3-D Circuits," Materials: A Strategic Initiative, Georgia Tech, June 7-8, 1993.
29. N. Jokerst, "Optoelectronic Smart Pixels," Centre Nationale de Telecommunications (CNET), Paris, France, September 24, 1993, Invited.
30. N. M. Jokerst, "Three Dimensional Integrated Circuits," L'Energie Atomique Direction Des Technologies Avancees (LETI), Grenoble, France, September 28, 1993, Invited.
31. N. M. Jokerst, "Optoelectronic Three Dimensional Smart Pixels," INSA, Toulouse, France, September 29, 1993, Invited.
32. N. M. Jokerst, "Hybrid Integration of Smart Pixels," Microelectronics Research Seminar Series, University of Illinois, Urbana-Champaign, October 20, 1993, Invited.
33. N. M. Jokerst, "Responsibility to Be the Best," Gamma Beta Phi Honor Society, 1993.
34. N. M. Jokerst, "Pulse of the Campus," Georgia Tech External Advisory Board, 1993.

35. N. M. Jokerst, "The New Environmentalism," Student Success Center Series, 1994.
36. N. M. Jokerst, "Going to Graduate School," Graduate Recruitment of Women (Program to Bring Females to Graduate School), 1995.
37. N. M. Jokerst, "Teaching Effectively," Presentation/Forum for Lilly Teaching Fellows, 1995.
38. N. M. Jokerst, "Being a Female Professional," Society of Women Engineers, 1996.
39. N. M. Jokerst, "Women in Engineering and Science," The Galloway School, 1997.
40. N. M. Jokerst, "Integrated Optoelectronics at Georgia Tech," to Sandia National Laboratory, Albuquerque, NM, December 8-10, 1997.
41. N. Jokerst, M. Brooke, D. S. Wills, A. Brown, "Optoelectronic Integration and Packaging," Keynote address to the Optoelectronic Industry Development Association(OIDA)/NSF Annual Forum, Washington, DC, Oct. 1-2, 1998, Invited.
42. N. M. Jokerst, "Optoelectronics at Georgia Tech," to visitors from French Embassy, Georgia Tech, April 30, 1997.
43. N. M. Jokerst and M. A. Brooke, "Integrated Optoelectronics at Georgia Tech," to EMC, Inc, July 9, 1997.
44. N. M. Jokerst, "Collaborative Integrated Optoelectronics in ECE at Georgia Tech," tour and presentation for School of Electrical and Computer Engineering Institute five year review, Georgia Tech, 1997.
45. N. M. Jokerst, "Collaborative Optoelectronics Research at Georgia Tech," to ECE Alumni/Professional External Advisory Board, Georgia Tech, October 10, 1997.
46. N. M. Jokerst, "Collaborative Optoelectronics Research at Georgia Tech," to Delegation from Lorraine, France, Georgia Tech, November 5, 1997.
47. N. M. Jokerst, "Collaborative Optoelectronics Research at Georgia Tech," and Microelectronics Research Center Tour for State of the School Program for Alumni, Georgia Tech, December 4, 1997.
48. N. M. Jokerst, "Multi-Material Integrated Optoelectronics," L'Energie Atomique Direction Des Technologies Avancees (LETI), Grenoble, France, June, 1997, Invited.
49. N. M. Jokerst, "Optoelectronic Three Dimensional Smart Pixels," INSA, Toulouse, France, June, 1997, Invited.
50. N. M. Jokerst, M. Brooke, and J. Laskar "Integrated Optoelectronics Research at Georgia Tech," to National Semiconductor Corporation, January 23, 1998.
51. N. Jokerst and S. Bond, "Integrated Optoelectronics," Microelectronics Research Center Seminar, January 14, 1998.
52. N. Jokerst, "Research at Georgia Tech," to combined Georgia State Legislative Budget Session, at the invitation of Chancellor S. Portch, January 21, 1998, Invited.
53. N. Jokerst, "Integrated Optoelectronics Research at Georgia Tech," to Steve Chaddick, Ciena Corp., January 28, 1998.
54. N. Jokerst, M. Brooke, and A. Glezer, "A High Frame Rate, Smart Camera for Aero-Optic Diagnostics," to Air Force Office of Scientific Research, Georgia Tech, March 11, 1998.

55. N. Jokerst and M. Brooke, "Ultra Small, Lightweight Surveillance Systems," to John Hoyt, DARPA/FBI, March 12, 1998.
56. N. M. Jokerst, "Research at Georgia Tech," to Georgia Board of Regents, Atlanta, GA, May 13, 1998, Invited.
57. ECE Graduate Seminar Speaker, "Microelectronics at Georgia Tech," Atlanta, November, 1999.
58. NSF Engineering Research Center Director's Panelist, "Leadership, Empowerment, and Control," Washington, DC, October, 1999.
59. "Low Cost Optoelectronic Packaging," Kyocera Corporation, San Diego, June, 1999.
60. N. Jokerst, "Fiber Optic Links for Automotive Applications," to Delphi, Inc., Kokomo, IN, May 5, 2000.
61. N. Jokerst, "High Speed Optoelectronics at Georgia Tech," to Ciena, Atlanta, GA, August 23, 2000.
62. N. Jokerst, A. Brown, M. Brooke, T. Keach, J. Jensen, "Heterogeneous Integration of GaN and MCT onto Si CMOS Drive Circuits for Multispectral Imaging," to DARPA, Washington, DC., August 29, 2000.
63. N. Jokerst, M. Brooke, "High Speed Optoelectronics," to Broadcom, Atlanta, GA, Sept. 27, 2000.
64. Nan Jokerst, "Integrated Sensing for Medical Applications," Anesthesiology Research Seminar, Duke University, October 1, 2004.
65. Nan Jokerst, "Optoelectronic Packaging: the Last 10 Years," NSF ERC in Electronic Packaging invited presentation, 10th Year Anniversary NSF Review, Atlanta, GA, October, 2004.
66. Nan Jokerst, "Global Issues," panelist for President Broadhead Inauguration, Duke University, September 18, 2004.
67. Nan Jokerst, "Multidisciplinary Education," invited panelist at the Workshop on Multidisciplinary Education, Duke University Franklin Center, September 10, 2004.
68. Nan Jokerst, "Sensors and Sensing System Integration," Duke Devil Fund, Duke University, January, 2004.
69. Nan Jokerst, "Sensing for the Environment," CIEMAS Dedication Panelist, Duke University, November 18, 2004.
70. N. Jokerst, "Integrated Micro and Nano Sensor Systems for Medical Diagnostics, and Environmental Sensing," *Frontiers 2005*, Duke University, Durham, NC, May, 2005.
71. N. Jokerst, "Integrated Optoelectronic Micro and Nano Systems for Sensing and Communication," *Duke Directions*, Duke University, Durham, NC, April, 2005.
72. N. Jokerst, Scientists and Engineers Collaborate to Solve Global Health and Environmental Problems," *Missouri Scholars Conference*, University of Missouri, Columbia, MO, June, 2005.
73. N. Jokerst, "Integrated Micro and Nano Systems," Panasonic Matsushita, Japan, 2005.
74. N. Jokerst, "Integrated Micro and Nano Optoelectronics," to Toray, Inc., Japan, Feb, 2005
75. N. Jokerst, "Integrated, Low Power Optical Interconnections," to Sony, Japan Feb, 2005

76. N. Jokerst, "Optical Interconnections Using Planar Lightwave Circuits," Semiconductor Research Corporation, Austin, Texas, April, 2005
77. N. Jokerst, "Heterogeneous Integration of Sensors onto Si CMOS," *DARPA Workshop on Compound Semiconductors on Si CMOS (COSMOS)*, Oct, 2005.
78. N. Jokerst, "Integrated Optoelectronics for Sensing and Communications," Rochester Institute of Optics Spring Colloquium, May 4, 2006.
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