

Curriculum Vitae- Roberto Correa Myers

Department of Materials Science and Engineering,
The Ohio State University
Columbus, OH 43210

Phone: (614) 547-9771
Email: myers.1079@osu.edu
Web: myersgroup.engineering.osu.edu

EDUCATION

- 2006 Ph.D. Materials, *University of California, Santa Barbara, CA*
- 2001 B.S.E. Materials Science and Engineering, *University of Pennsylvania, Philadelphia, PA*
- 2001 B.A. Philosophy and Science, *University of Pennsylvania, Philadelphia, PA*

AWARDS

- 2018 Harrison Faculty Award, *Ohio State University*
- 2013 Lumley Interdisciplinary Research Award, *Ohio State University*
- 2012 Lumley Research Award, *Ohio State University*
- 2012 Award, *Ohio State University*
- 2011 National Science Foundation: CAREER award
- 2005 [Newcomb Cleveland Prize](#). American Association for the Advancement of Science (AAAS)
- 2001 Senior Design award, Materials Science and Engineering, *University of Pennsylvania*
- 2000 E. Ward Plummer award, NSF-REU, *University of Pennsylvania*

PROFESSIONAL APPOINTMENTS

- 2017-present Professor: Materials Science and Engineering (80%), Electrical and Computer Engineering (20%), and Physics (by courtesy), *The Ohio State University*
- 2013-2017 Associate Professor: Materials Science and Engineering (80%), Electrical and Computer Engineering (20%), and Physics (by courtesy), *The Ohio State University*
- 2011 Summer Visiting Professor: Basel Center for Quantum Computing and Quantum Coherence, *University of Basel, Switzerland*
- 2008-2013 Assistant Professor: Materials Science and Engineering (80%), Electrical and Computer Engineering (20%), and Physics (by courtesy), *The Ohio State University*
- 2006-2008 Postdoctoral Fellow: California NanoSystems Institute, *University of California, Santa Barbara*, Advisor: Prof. David Awschalom (Physics).
- 2006-2008 Technical coordinator of the Center for Nanoscience Innovation for Defense (CNID) program sponsored by DARPA at the *University of California, Santa Barbara*.
- 2001-2006 Graduate Research Assistant: Materials and Physics Dept., *University of California, Santa Barbara*, Advisors: Profs. Art Gossard and David Awschalom
- 2002 Teaching Assistant: Materials Dept., *University of California, Santa Barbara*
- 2000-2001 Undergraduate Research Assistant: Materials Science and Engineering Dept.,

University of Pennsylvania, Advisor: Prof. I-W Chen

- 2000 Grader: Materials Science and Engineering Dept., *University of Pennsylvania*
- 2000 NSF-REU: Materials Science and Engineering Dept., *University of Pennsylvania*
- 1999 Intern: Materials Science and Engineering Dept., *University of Pennsylvania*
- 1999 NSF-REU: *Johns Hopkins University*, Physics Dept, Advisor: Prof. C-L. Chien.
- 1998 Intern: Materials Science and Engineering Dept., *University of Pennsylvania*

Memberships: APS, IEEE Magnetics, SPIE, ASM, AVS

PUBLICATIONS

Journal Articles and Book Chapters

1. "Local Electric Field Measurement in GaN Diodes by Exciton Franz-Keldysh Photocurrent Spectroscopy", Darpan Verma, Md Mohsinur Rahman Adnan, Mohammad Wahidur Rahman, Siddharth Rajan, and Roberto C. Myers, *Appl. Phys. Lett.* **116**, 202102 (2020)
2. "Long lifetime of thermally-excited magnons in bulk yttrium iron garnet", John S. Jamison, Zihao Yang, Brandon L. Giles, Jack T. Brangham, Guanzhong Wu, P. Chris Hammel, Fengyuan Yang, and Roberto C. Myers, *Phys. Rev. B* **100**, 134402 (2019)
3. "Ferromagnetic Epitaxial μ -Fe₂O₃ on β -Ga₂O₃: A New Monoclinic form of Fe₂O₃", John S. Jamison, Breton J. May, Julia I. Deitz, Szu-Chia Chien, David W. McComb, Tyler J. Grassman, Wolfgang Windl, and Roberto C. Myers, *Cryst. Grow. Des.* (2019)
4. "Excimer-Mediated Intermolecular Charge Transfer in Self-Assembled Donor-Acceptor Dyes on Metal Oxides", Yongze Yu, Szu-Chia Chien, Jiaonan Sun, Elline C Hettiaratchy, Roberto C Myers, Li-Chiang Lin, and Yiyang Wu, *J. Am. Chem. Soc.* **141**, 8727 (2019)
5. "Enhanced uniformity of III-nitride nanowire arrays on bulk metallic glass and nanocrystalline substrates", Breton J. May, Elline C. Hettiaratchy, Camelia Selcu, Binbin Wang, Bryan D. Esser, David W. McComb, and Roberto C. Myers, *J. Vac. Sci. Technol. B* **37**, 031212 (2019)
6. "Controlled Nucleation of Monolayer MoSe₂ Islands on Si (111) by MBE", Breton J. May, Elline C. Hettiaratchy, Roberto C. Myers, *J. Vac. Sci. Technol. B* **37**, 021211 (2019)
7. "Nonlocal Spin Transport Mediated by a Vortex Liquid in Superconductors", Se Kwon Kim, Roberto Myers, and Yaroslav Tserkovnyak, *Phys. Rev. Lett.* **121**, 187203 (2018)
8. "Nano-Cathodoluminescence Measurement of Asymmetric Carrier Trapping and Radiative Recombination in GaN and InGaN Quantum Disks", Julia I. Deitz, A.T.M. G. Sarwar, Santino D. Carnevale, Tyler J. Grassman, Roberto C. Myers, and David W. McComb, *Microscopy and Microanalysis* **24**, 93 (2018)
9. "Nanoscale Electronic Conditioning for Improvement of Nanowire Light Emitting Diode Efficiency", Breton J May, Matthew R Belz, Arshad Ahamed, A.T.M. Golam Sarwar, Camelia M Selcu, and Roberto C Myers, *ACS Nano* **12**, 3551 (2018)
10. "Nanoscale current uniformity and injection efficiency of nanowire light emitting diodes," Breton J. May, Camelia M. Selcu, A.T.M. G. Sarwar, and Roberto C. Myers, *Appl. Phys. Lett.* **112**, 093107 (2018)
11. "Hexagonal Nanopyramidal Prisms of Nearly Intrinsic InN on Patterned GaN Nanowire Arrays," A.T.M. Golam Sarwar, Benjamin Leung, George T Wang & Roberto C Myers, *Cryst. Grow. Des.* (2018)

12. "Simultaneous molecular beam epitaxy growth at multiple uniform substrate temperatures", Brelon J. May and Roberto C. Myers, *J. Vac. Sci. Technol. B* 36, 011203 (2017)
13. "Thermally Driven Long Range Magnon Spin Currents in Yttrium Iron Garnet due to Intrinsic Spin Seebeck Effect", Brandon L. Giles, Zihao Yang, John Jamison, Juan M. Gomez-Perez, Saül Vélez, Luis E. Hueso, Fèlix Casanova, and Roberto C. Myers, *Phys. Rev. B* 96, 180412(R) (2017)
14. "Scalable Nernst thermoelectric power using a coiled galphenol wire", Zihao Yang, Emilio A. Codecido, Jason Marquez, Yuanhua Zheng, Joseph P. Heremans, and Roberto C. Myers, *AIP Advances* 7, 095017 (2017)
15. "Molecular beam epitaxy of 2D-layered gallium selenide on GaN substrates", Choong Hee Lee, Sriram Krishnamoorthy, Dante J. O'Hara, Mark R. Brenner, Jared M. Johnson, John S. Jamison, Roberto C. Myers, Roland K. Kawakami, Jinwoo Hwang, and Siddharth Rajan, *J. Appl. Phys.* 121, 094302 (2017)
16. "Three-dimensional lattice matching of epitaxially embedded nanoparticles", Brelon J. May, Peter M. Anderson, and Roberto C. Myers, *J. Cryst. Growth* 459, 209-214 (2017)
17. "Nanowire LEDs Grown Directly on Flexible Metal Foil", Brelon J. May, ATM Golam Sarwar, and Roberto C. Myers, *Appl. Phys. Lett.* 108, 141103 (2016)
18. "Self-assembled InN Micro-Mushrooms By Upside-down Pendeoepitaxy", A.T.M. Golam Sarwar, Fan Yang, Bryan D. Esser, Thomas F. Kent, David W. McComb, and Roberto C. Myers, *J. Cryst. Growth* 443, 90-97 (2016)
19. "Ultrathin GaN Quantum Disk Nanowire LEDs with sub-250 nm Electroluminescence", ATM Golam Sarwar, Brelon May, Matthew F. Chisholm, Gerd Duscher, and Roberto C. Myers, *Nanoscale* 8, 8024 (2016)
20. "Effect of quantum well shape and width on deep ultraviolet emission in AlGaIn nanowire LEDs", A.T.M. Golam Sarwar, Brelon J. May, and Roberto C. Myers, *Phys. Stat. Sol. A* (2015)
21. "Long range pure magnon spin diffusion observed in a non-local spin-Seebeck geometry", Brandon L. Giles, Zihao Yang, John Jamison, Roberto C. Myers, *Phys. Rev. B* 92, 224415 (2015)
22. "Anisotropic defect-induced ferromagnetism and transport in Gd-doped GaN two-dimensional electron gasses", Zihao Yang, Thomas F Kent, Jing Yang, Hyungyu Jin, Joseph P Heremans, and Roberto C. Myers, *Phys. Rev. B* 92, 224416 (2015)
23. "Tunnel Junction Enhanced Nanowire Ultraviolet Light Emitting Diodes", A. T. M. Golam Sarwar, Brelon J. May, Julia I. Deitz, Tyler J. Grassman, David W. McComb, and Roberto C. Myers, *Appl. Phys. Lett.* 107, 101103 (2015)
24. "The effect of the magnon dispersion on the longitudinal spin Seebeck effect in yttrium iron garnets (YIG)", Hyungyu Jin, Stephen R. Boona, Zihao Yang, Roberto C. Myers, Joseph P. Heremans, *Phys. Rev. B* 92, 054436 (2015)
25. "Semiconductor Nanowire Light Emitting Diodes Grown on Metal: A Direction towards Large Scale Fabrication of Nanowire Devices", ATM Golam Sarwar, Santino D. Carnevale, Fan Yang, Thomas F. Kent, John J. Jamison, David W. McComb, and Roberto C. Myers, *Small* 11, 5402-5408 (2015)
26. "Molecular beam epitaxy of InN nanowires on Si", ATM Golam Sarwar, Santino D. Carnevale, Thomas F. Kent, Masihur R. Laskar, Brelon J. May, and Roberto C. Myers, *J. Cryst. Growth* 428, 59-70 (2015)
27. "Moving spins with heat: Prospects for thermally powered spintronics", Roberto C. Myers, Brandon Giles, Zihao Yang, and John Jamison, *IEEE DRC Proc.* 47-48 (2015)

28. "Tunnel junction integrated ultraviolet nanowire LEDs", ATM G. Sarwar, B. J. May, R. C. Myers, [IEEE DRC Proc. 71-72 \(2015\)](#)
29. "Electronic structure and photocatalytic water oxidation activity of RTiNO₂ (R = Ce, Pr and Nd) perovskite nitride oxides", Spencer Porter, Zhenguo Huang, Shi Xue Dou, Samantha Brown-Xu, A.T.M. Golam Sarwar, Roberto C. Myers, and Patrick Woodward, [Chemistry of Materials 27, 2414-2420 \(2015\)](#)
30. "Phonon-induced diamagnetic force and its effect on the lattice thermal conductivity", Hyungyu Jin, Oscar D. Restrepo, Nikolas Antolin, Stephen R. Boona, Wolfgang Windl, Roberto C. Myers, Joseph P. Heremans, [Nature Materials 14, 601-606 \(2015\)](#)
31. "Tuning the polarization-induced free hole density in nanowires graded from GaN to AlN", A. T. M. Golam Sarwar, Santino D. Carnevale, Thomas F. Kent, Fan Yang, David W. McComb, Roberto C. Myers, [Appl. Phys. Lett. 106, 032102 \(2015\)](#)
32. "Optical control of internal electric fields in band-gap graded InGaN nanowires", Nadine Erhard , A.T.M. Golam Sarwar, Fan Yang , David W. McComb , Roberto C Myers , and Alexander W. Holleitner, [Nano Letters 15, 332 \(2015\)](#)
33. "Deep Ultraviolet Emitting Polarization Induced Nanowire Light Emitting Diodes with Al_xGa_{1-x}N Active Regions", Thomas F. Kent, Santino D. Carnevale, A. T. M Sarwar, Patrick J. Phillips, Robert F. Klie, Roberto C. Myers, [Nanotechnology 25, 455201 \(2014\)](#)
34. "Compositionally Graded III-nitride Nanowire Heterostructures: Growth, Characterization, and Applications," Santino D. Carnevale and Roberto C. Myers, Chapter 3 of the Handbook of Nanomaterials Properties, Springer Berlin Heidelberg, [pp85-119 \(2014\)](#)
35. "Catalyst-free ZnO nanowires on silicon by pulsed laser deposition with tunable density and aspect ratio," M. A. Susner, S. D. Carnevale, T. F. Kent, L. M. Gerber, P. J. Phillips, M. D. Sumption, and R. C. Myers, [Physica E 62, 95-103 \(2014\)](#)
36. "P-type doping of MoS₂ thin films using Nb," M. R. Laskar, D. N. Nath, Lu Ma, E. W. Lee II, C. H. Lee, T. Kent, Z. Yang, R. Mishra, M. A. Roldan, J. C. Idrobo, S. T. Pantelides, S. J. Pennycook, R. C. Myers, Y. Wu and S. Rajan.. [Appl. Phys. Lett. 104, 092104 \(2014\)](#)
37. "Spin Caloritronics," Stephen R. Boona, Roberto C. Myers, and Joseph P. Heremans, [Energy and Environmental Science 7, 885-910 \(2014\)](#)
38. "Spin-Seebeck like signal in ferromagnetic bulk metallic glass without platinum contacts," Hyungyu Jin, Zihao Yang, Roberto C. Myers, and Joseph P. Heremans, [Solid State Communications 198, 40-44 \(2014\)](#)
39. "Single nanowire AlN/GaN double barrier resonant tunneling diodes with bipolar tunneling at room and cryogenic temperatures," Ye Shao, Santino D Carnevale, A. T. M. G. Sarwar, Roberto C. Myers, and Wu Lu, [J. Vac. Sci. Technol. B 31, 06FA03 \(2013\)](#).
40. "Semipolar InN/AlN multiple quantum wells on {10-15} faceted AlN on silicon," J. Yang, F. Yang, T. F. Kent, M. J. Mills, and R. C. Myers, [Appl. Phys. Lett. 103, 121105 \(2013\)](#)
41. "Mixed Polarity in Polarization-Induced pn Junction Nanowire Light Emitting Diodes," Santino D. Carnevale, Thomas F. Kent, Patrick J. Phillips, A. T. M. G. Sarwar, Camelia Selcu, Robert F. Klie, and Roberto C. Myers, [Nano Letters 13, 3029 \(2013\)](#)
42. "Ferromagnetism and infrared electrodynamics of GaMnAs," B. C. Chapler, S. Mack, R. C. Myers, A. Frenzel, B. C. Pursley, K. S. Burch, A. M. Dattelbaum, N. Samarth, D. D. Awschalom, and D. N. Basov, [Phys. Rev. B 87, 205314 \(2013\)](#)

43. "Atomically sharp 318 nm Gd:AlGa_N ultraviolet light emitting diodes on Si with low threshold voltage," Thomas F. Kent, Santino D. Carnevale, and Roberto C. Myers, [Appl. Phys. Lett. 102, 201114 \(2013\)](#)
44. "Full-Scale Characterization of UVLED AlGa_N Nanowires via Advanced Electron Microscopy," Patrick J. Phillips, Santino D. Carnevale, Rajan Kumar, Roberto C. Myers, and Robert F. Klie, [ACS Nano 7, 5045 \(2013\)](#)
45. "GdN Nanoisland-Based GaN Tunnel junctions," Sriram Krishnamoorthy, Thomas Kent, Jing Yang, Pil Sung Park, Roberto C. Myers, and Siddharth Rajan, [Nano Letters 13, 2570 \(2013\)](#)
46. "Molecular Beam Epitaxy of Graded-Composition InGa_N Nanowires," M. R. Laskar, S. D. Carnevale, A. T. M. G. Sarwar, P. J. Phillips, M. J. Mills, and R. C. Myers, [J. Elec. Mater. 42, 863-867 \(2013\)](#)
47. "Graded nanowire ultraviolet LEDs by polarization engineering," Santino D. Carnevale, Thomas F. Kent, Patrick J. Phillips, A.T.N. Golam Sarwar, Robert F. Klie, Siddharth Rajan, and Roberto C. Myers, [Proceedings of SPIE 8467, 84670L-1 \(2012\)](#)
48. "Exploiting piezoelectric charge for high performance graded InGa_N nanowire solar cells," A. T. M. Golam Sarwar and R. C. Myers, [Appl. Phys. Lett. 101, 143905 \(2012\)](#)
49. "Giant spin-Seebeck effect in a non-magnetic material," C. M. Jaworski, R.C. Myers, E. Johnston-Halperin, and J .P. Heremans, [Nature 487, 210-213 \(2012\)](#)
50. "Epitaxial Ferromagnetic Nanoislands of Cubic GdN in Hexagonal GaN," T. F. Kent, J. Yang, L. Yang, M. J. Mills, and R. C. Myers, [Appl. Phys. Lett. 100, 152111 \(2012\)](#)
51. "Coaxial Nanowire Resonant Tunneling Diodes from non-polar AlN/GaN on Silicon," S. D. Carnevale, C. Marginean, P. J. Phillips, T. F. Kent, A. T. M. G. Sarwar, M. J. Mills, and R. C. Myers, [Appl. Phys. Lett. 100, 142115 \(2012\)](#)
52. "Record low tunnel junction specific resistivity ($<3 \times 10^{-4} \text{ Wcm}^2$) in GaN inter-band tunnel junctions," Sriram Krishnamoorthy, Fatih Akyol, Jing Yang, Pil Sung Park, Roberto C. Myers, and Siddharth Rajan, [IEEE DRC Proc. 157-158 \(2012\)](#)
53. "Viewpoint: Spin-Heat Vision," Roberto Myers and Joseph Heremans, [Physics 5, 29 \(2012\)](#)
54. "Polarization-induced pn-diodes in wide band gap nanowires with ultraviolet electroluminescence," S. D. Carnevale, T. F. Kent, P. J. Phillips, M. J. Mills, S. Rajan, and R. C. Myers, [Nano Letters 12, 915 \(2012\)](#)
55. "Deep traps in nonpolar m-plane GaN grown by ammonia-based molecular beam epitaxy," Z. Zhang, C. A. Hurni, A. R. Arehart, J. Yang, R. C. Myers, J. S. Speck, and S. A. Ringel, [Appl. Phys. Lett. 100, 052114 \(2012\)](#)
56. "Infrared probe of the insulator-to-metal transition in Ga_{1-x}Mn_xAs and Ga_{1-x}Be_xAs," B. C. Chapler, R. C. Myers, S. Mack, A. Frenzel, B. C. Pursley, K. S. Burch, E. J. Singley, A. M. Dattelbaum, N. Samarth, D. D. Awschalom, and D. N. Basov, [Phys. Rev. B 84, 081203\(R\) \(2011\)](#)
57. "Spin-Seebeck effect: a phonon driven spin distribution," C. M. Jaworski, J. Yang, S. Mack, D. D. Awschalom, R. C. Myers, and J. P. Heremans, [Phys. Rev. Lett. 106, 186601 \(2011\)](#)
58. "Three-Dimensional GaN/AlN Nanowire Heterostructures by Separating Nucleation and Growth Processes," S. D. Carnevale, J. Yang, P. J. Phillips, M. J. Mills and R. C. Myers, [Nano Letters 11, 866-871 \(2011\)](#)
59. "A Gadolinium Doped Superlattice GaN Schottky Diode for Neutron Detection," Jinghui Wang, Praneeth Kandlakunta, Thomas F. Kent, John Carlin, Daniel R. Hoy, Roberto C. Myers, and Lei Cao, [Transactions of the American Nuclear Society 104, 209-210 \(2011\)](#).

60. "Observation of the Spin-Seebeck Effect in a Ferromagnetic Semiconductor," C. M. Jaworski, J. Yang, S. Mack, D. D. Awschalom, J. P. Heremans and R. C. Myers, [Nature Materials 9, 898–903 \(2010\)](#)
61. "Interlayer and interfacial exchange coupling in ferromagnetic metal/semiconductor heterostructures," M. J. Wilson, M. Zhu, R. C. Myers, D. D. Awschalom, P. Schiffer, and N. Samarth, [Phys. Rev. B 81, 045319 \(2010\)](#)
62. "Polarized emission from twin microdisk photonic molecules," X. Li, R. C. Myers, F. M. Mendoza, D. D. Awschalom, and N. Samarth, [IEEE J. Quant. Electron. 45, 932 \(2009\)](#)
63. "Single Spin Coherence in Semiconductors," M. H. Mikkelsen, R. C. Myers, G. D. Fuchs, and D. D. Awschalom, Chapter 1 of *Semiconductors and Semimetals Volume 82: Spintronics*, Amsterdam, The Netherlands: Elsevier, Inc., [pp1-44 \(2008\)](#)
64. "Stoichiometric growth of high Curie temperature heavily alloyed GaMnAs," S. Mack, R. C. Myers, J. T. Heron, A. C. Gossard, and D. D. Awschalom, [Appl. Phys. Lett. 92, 192502 \(2008\)](#)
65. "Zero-field optical manipulation of magnetic ions in semiconductors," R. C. Myers, M. H. Mikkelsen, J.-M. Tang, A. C. Gossard, M. E. Flatté, and D. D. Awschalom, [Nature Materials, 7, 203 \(2008\)](#)
66. "Spin Engineering in Quantum Well Structures," Roberto C. Myers and Arthur C. Gossard, in [Handbook of Magnetism and Advanced Magnetic Materials](#), John Wiley & Sons Ltd, Chichester, UK, [pp2793-2811 \(2007\)](#)
67. "Enhancement of Spin Coherence in Microdisk Lasers," Sayantani Ghosh, Felix Mendoza, Roberto Myers, Art C. Gossard, David D. Awschalom, Wei-Hua Wang, Xia Li & Nitin Samarth, in [Int. Conf. Quantum Inf. \(2007\)](#)
68. "Onset of ferromagnetism in low-doped Ga_{1-x}Mn_xAs," B. L. Sheu, R. C. Myers, J.-M. Tang, N. Samarth, D. D. Awschalom, P. Schiffer, and M. E. Flatté, [Phys. Rev. Lett. 99, 227205 \(2007\)](#)
69. "Dimensionally constrained D'yakonov-Perel' spin relaxation in n-InGaAs channels: transition from 2D to 1D," A. W. Holleitner, V. Sih, R. C. Myers, A. C. Gossard, and D. D. Awschalom, [New J. Phys. 9, 342 \(2007\)](#)
70. "Confinement engineering of s-d exchange interactions in GaMnAs/AlGaAs quantum wells," N. P. Stern, R. C. Myers, M. Poggio, A. C. Gossard, and D. D. Awschalom, [Phys. Rev. B 75, 045329 \(2007\)](#)
71. "Nuclear and ion spins in semiconductor nanostructures," M. Poggio, R. C. Myers, G. M. Steeves, N. P. Stern, A. C. Gossard and D. D. Awschalom, [Physica E 35, 264 \(2006\)](#)
72. "Antisite effect on hole-mediated ferromagnetism in (Ga,Mn)As," R. C. Myers, B. L. Sheu, A. W. Jackson, A. C. Gossard, P. Schiffer, N. Samarth, and D. D. Awschalom, [Phys. Rev. B 74, 155203 \(2006\)](#)
73. "Room temperature electron spin coherence in telecom-wavelength quaternary quantum wells," W. H. Lau, V. Sih, N. P. Stern, R. C. Myers, D. A. Buell, A. C. Gossard, and D. D. Awschalom, [Appl. Phys. Lett. 89, 142104 \(2006\)](#)
74. "Generating Spin Currents in Semiconductors with the Spin Hall Effect," V. Sih, W. H. Lau, R. C. Myers, V. R. Horowitz, A. C. Gossard, and D. D. Awschalom, [Phys. Rev. Lett. 97, 096605 \(2006\)](#)
75. "Suppression of Spin Relaxation in Submicron InGaAs Wires," A. W. Holleitner, V. Sih, R. C. Myers, A. C. Gossard, and D. D. Awschalom, [Phys. Rev. Lett. 97, 036805 \(2006\)](#)
76. "Spatial imaging and mechanical control of spin coherence in strained GaAs epilayers," H. Knotz, A. W. Holleitner, J. Stephens, R. C. Myers, and D. D. Awschalom, [Appl. Phys. Lett. 88, 241918 \(2006\)](#)

77. "Tunneling through MnAs particles at a GaAs p^+n^+ junction," F. L. Bloom, A. C. Young, R. C. Myers, E. R. Brown, A. C. Gossard, and E. G. Gwinn, *J. Vac. Sci. Technol. B* **24**, 1639 (2006)
78. "Enhancement of Spin Coherence using Q-factor Engineering in Semiconductor Microdisk Lasers," S. Ghosh, W. H. Wang, F. M. Mendoza, R. C. Myers, X. Li, N. Samarth, A. C. Gossard, and D. D. Awschalom, *Nature Materials*, **5**, 267 (2006)
79. "Structural, electrical, and magneto-optical characterization of paramagnetic GaMnAs quantum wells," M. Poggio, R. C. Myers, N. P. Stern, A. C. Gossard, and D. D. Awschalom, *Phys. Rev. B* **72**, 235313 (2005)
80. "Spatial imaging of the spin Hall effect and current-induced polarization in two-dimensional electron gases," V. Sih, R. C. Myers, Y. K. Kato, W. H. Lau, A. C. Gossard, and D. D. Awschalom, *Nature Physics* **1**, 31 (2005)
81. "Optoelectronic control of spin dynamics at near-terahertz frequencies in magnetically doped quantum wells," R. C. Myers, K. C. Ku, X. Li, N. Samarth, and D. D. Awschalom, *Phys. Rev. B* **72**, 041302(R) (2005)
82. "Local manipulation of nuclear spin in a semiconductor quantum well," M. Poggio, G. M. Steeves, R. C. Myers, Y. Kato, A. C. Gossard & D. D. Awschalom, in *IQEC, Int. Quantum Electron. Conf. Proc.* (2005)
83. "Electrical initialization and manipulation of electron spins in an L-shaped strained n-InGaAs channel," Y. K. Kato, R. C. Myers, A. C. Gossard, and D. D. Awschalom, *Appl. Phys. Lett.* **87**, 022503 (2005)
84. "Antiferromagnetic s-d Exchange Coupling in GaMnAs," R. C. Myers, M. Poggio, N. P. Stern, A. C. Gossard, and D. D. Awschalom, *Phys. Rev. Lett.* **95**, 017204; 229902(E) (2005)
85. "Manipulating a domain wall in (Ga,Mn)As," A. W. Holleitner, H. Knotz, R. C. Myers, A. C. Gossard, and D. D. Awschalom, *J. Appl. Phys.* **97**, 10D314 (2005)
86. "Electron spin interferometry using a semiconducting ring structure," Y. K. Kato, R. C. Myers, A. C. Gossard, and D. D. Awschalom, *Appl. Phys. Lett.* **86**, 162107 (2005)
87. "Observation of the Spin Hall Effect in Semiconductors," Y. K. Kato, R. C. Myers, A. C. Gossard, and D. D. Awschalom, *Science* **306**, 1910 (2004)
88. "Pinning a domain wall in (Ga,Mn)As with focused ion beam lithography," A. W. Holleitner, H. Knotz, R. C. Myers, A. C. Gossard, and D. D. Awschalom, *Appl. Phys. Lett.* **85**, 5622 (2004)
89. "Control of electron-spin coherence using Landau level quantization in a two-dimensional electron gas," V. Sih, W. H. Lau, R. C. Myers, A. C. Gossard, M. E. Flatté, and D. D. Awschalom, *Phys. Rev. B* **70**, 11313(R) (2004)
90. "Current-Induced Spin Polarization in Strained Semiconductors," Y. K. Kato, R. C. Myers, A. C. Gossard, and D. D. Awschalom, *Phys. Rev. Lett.* **93**, 176601 (2004)
91. "Spin transfer and coherence in coupled quantum wells," M. Poggio, G. M. Steeves, R. C. Myers, N. P. Stern, A. C. Gossard, and D. D. Awschalom, *Phys. Rev. B* **70**, 121305(R) (2004)
92. "Tunable spin polarization in III-V quantum wells with a ferromagnetic barrier," R. C. Myers, A. C. Gossard, and D. D. Awschalom, *Phys. Rev. B* **69**, 161305(R) (2004)
93. "Coherent spin manipulation without magnetic fields in strained semiconductors," Y. Kato, R. C. Myers, A. C. Gossard, and D. D. Awschalom, *Nature* **427**, 50 (2004)

94. "Independent electronic and magnetic doping in (Ga, Mn)As based digital ferromagnetic heterostructures," E. Johnston-Halperin, J. A. Schuller, C. S. Gallinat, T. C. Kreutz, R. C. Myers, R. K. Kawakami, H. Knotz, A. C. Gossard, and D. D. Awschalom, *Phys. Rev. B* **68**, 165328 (2003)
95. "Local manipulation of nuclear spins in a semiconductor quantum well," M. Poggio, G. M. Steeves, R. C. Myers, Y. Kato, A. C. Gossard, and D. D. Awschalom, *Phys. Rev. Lett.* **91**, 207602 (2003)
96. "Highly enhanced Curie temperature in low-temperature annealed [Ga,Mn]As epilayers," K. C. Ku, S. J. Potashnik, R. F. Wang, S. H. Chun, P. Schiffer, N. Samarth, M. J. Seong, A. Mascarenhas, E. Johnston-Halperin, R. C. Myers, A. C. Gossard, and D. D. Awschalom, *Appl. Phys. Lett.* **82**, 2302 (2003)
97. "Gigahertz Electron Spin Manipulation Using Voltage Controlled g-Tensor Modulation," Y. Kato, R. C. Myers, D. C. Driscoll, A. C. Gossard, J. Levy, D. D. Awschalom, *Science* **299**, 1201 (2003)
98. "Gigahertz manipulation of electron spins in semiconductor nanostructures," Y. Kato, R.C. Myers, D.C. Driscoll, A.C. Gossard, J. Levy & D.D. Awschalom, in *Int. Symp. Compd. Semicond* (2003)

Patents

1. "Methods for forming nanowire photonic devices on a flexible polycrystalline substrate", Roberto C. Myers, Brelon J. May, and A.T.M. Golam Sarwar. Pending: Aug 23, 2018 (US 2018 / 0237941).
2. "Gd Doped AlGa_N Ultraviolet Light Emitting Diodes," Roberto Myers and Thomas Kent, Inventors. Ohio State University. Filed: Aug 19, 2014. Issued: Jun 14, 2016 (US 9,368,676).
3. "Nanoscale Emitters With Polarization Grading," Roberto Myers and Siddharth Rajan, Inventors. Ohio State University. Filed: August 25, 2011. Issued: October 25, 2016 (US 9,478,699).

CONFERENCE, WORKSHOP, AND SEMINAR PRESENTATIONS

1. May 2019, *Spin Caloritronics X*, Groningen, The Netherlands, "Temperature dependence of the magnon spin lifetime and magnon-phonon coupling in yttrium iron garnet", Roberto C. Myers (**invited**)
2. March 2019, *APS March Meeting*, Boston, MA, "Electronic Homogeneity of Nanowire Heterostructure Light Emitting Diodes (LEDs)", Camelia M. Selcu, Brelon J. May, ATM G. Sarwar, Roberto C. Myers
3. October 2018, *North American Molecular Beam Epitaxy*, Banff, Alberta, Canada, "Spin-orbit driven thermo-electric transport in InSb / approaches for band engineered topological heterostructures", Roberto C. Myers (**invited**)
4. October 2018, *North American Molecular Beam Epitaxy*, Banff, Alberta, Canada, "Molecular Beam Epitaxy of III-Nitride Nanowires on Amorphous and Nanocrystalline Metals", Brelon J. May, Elline C. Hettiaratchy, Roberto C. Myers (student talk, best student talk award)
5. October 2018, *North American Molecular Beam Epitaxy*, Banff, Alberta, Canada, "Controlled Nucleation of Monolayer MoSe₂ islands on Si (111) by MBE", Elline C. Hettiaratchy, Brelon J. May, Roberto C. Myers (student talk)
6. June 2018, *Spin Caloritronics IX*, Columbus, OH, "Microwave magnons and the intrinsic spin Seebeck effect in yttrium iron garnet", Roberto C. Myers (**invited**)
7. October 2017, *North American Molecular Beam Epitaxy Conference*, Galveston, TX, "Substrate Holder for Simultaneous Multiple Temperature Growth" Brelon J. May, Roberto C. Myers (student poster, best poster award)

8. October 2017, *North American Molecular Beam Epitaxy Conference*, Galveston, TX, “Burn-In of III-Nitride Nanowire Light Emitting Diodes”, Brelon J. May, Matthew R. Belz, Ahamed Arshad, A.T.M. Golam Sarwar, Camelia M. Selcu, Roberto C. Myers (student talk)
9. June 2017, *Electronic Materials Conference*, South Bend, IN “Current Conditioning of Nanowire-Based Optoelectronic Devices” Brelon J. May, Matthew R. Belz, Ahamed Arshad, A.T.M. Golam Sarwar, Camelia M. Selcu, Roberto C. Myers (student talk)
10. June 2017, *Electronic Materials Conference*, South Bend, IN, “Molecular Beam Epitaxy of MoSe₂ Directly on Si”, Brelon J. May, Roberto C. Myers (student talk)
11. March 2017, *March Meeting of the American Physical Society*, New Orleans, LA, “Temperature Dependence of Lateral magnon spin diffusion in Yttrium Iron Garnet bulk crystals and films”, Brandon Giles, Zihao Yang, John Jamison, Roberto Myers (student talk).
12. March 2017, *March Meeting of the American Physical Society*, New Orleans, LA, “Finite-element modeling of thermal and condensed magnon transport”, Roberto Myers, Zihao Yang (talk).
13. March 2017, *March Meeting of the American Physical Society*, New Orleans, LA, “Temperature Dependence of the Time-Resolved Spin-Seebeck Effect”, John S. Jamison, Zihao Yang, Brandon L. Giles, Jack Brangham, Fengyuan Yang, Roberto C. Myers (student talk).
14. March 2017, *March Meeting of the American Physical Society*, New Orleans, LA, “Three-Dimensional Lattice Matching of Epitaxially Embedded Nanoparticles”, Brelon J. May, Peter M. Anderson, Roberto C. Myers (student talk).
15. March 2017, *March Meeting of the American Physical Society*, New Orleans, LA, “Demonstration of Scalable Nernst Voltage in a Coiled Gallenol Wire”, Emilio Codecido, Zihao Yang, Jason Marquez, Yuanhua Zheng, Joseph Heremans, Roberto Myers (student talk).
16. November 2016, *Solid State Electronics and Photonics Seminar*, Columbus, OH, “Ultraviolet LEDs on Metal and 3D Lattice Matching”, Brelon J. May, A.T.M. Golam Sarwar, Jonathon Orsborn, Hamish L. Fraser, Peter M. Anderson, Roberto C. Myers (student talk)
17. October 2016, *Dept. of Physics, Ball State University*, Muncie, In, “Dopant-less Diodes: Nanowire Optoelectronics Using Polarization Charge”, R. C. Myers (**invited colloquium**).
18. September 2016, *North American Molecular Beam Epitaxy*, Saratoga Springs, NY, “Ultraviolet Nanowire LEDs Grown Directly on Flexible Metal Foil: A Route Toward Scalable Molecular Beam Epitaxy” Brelon J. May, A. T. M. Golam Sarwar, Jonathan Orsborn, Hamish L. Fraser, Roberto C. Myers (student talk, best student talk award).
19. July 2016, Spin Caloritronics 7, Utrecht, The Netherlands, “Scanning laser measurement of non-local magnon spin diffusion in YIG – IRG3”, R. C. Myers (**invited**).
20. June 2016, *Electronic Materials Conference*, Newark, DE, “Integration of Ultraviolet Nanowire LEDs Directly on Flexible Metal Foil – A Route Toward Scalable Photonics” Brelon J. May, A.T.M. Golam Sarwar, Roberto C. Myers (student talk).
21. May 2016, Emerging Technologies Conference, Montreal, Canada, “Nanowire Photonics Integrated on Metal for Scalable Nanomanufacturing”, Roberto C. Myers (**invited**).
22. March 2016, *March Meeting of the American Physical Society*, Baltimore, MD, “Non-local thermal spin injection to study spin diffusion in yttrium iron garnet”, Brandon Giles, Zihao Yang, John Jamison, Roberto C. Myers (student talk).
23. March 2016, *March Meeting of the American Physical Society*, Baltimore, MD, “Investigation of the timescale of the spin-Seebeck effect in yttrium iron garnet from pico to nanoseconds”, John Jamison, Zihao Yang, Roberto C. Myers (student talk).

24. March 2016, *March Meeting of the American Physical Society*, Baltimore, MD, “Time-domain measurement of spin-Seebeck effect as a function of temperature: interface magnon effect”, Zihao Yang, John Jamison, Roberto C. Myers (student talk).
25. March 2016, *March Meeting of the American Physical Society*, Baltimore, MD, “Magnon-drag and thermomagnetic transport properties of Ca doped YIG”, Yuanhua Zheng, Bin He, Xi Chen, Jianshi Zhou, Li Shi, Roberto Myers, Joseph Heremans (student talk).
26. December 2015, *Spin Energy Materials Workshop*, Sendai, Japan, “Lateral spin diffusion in Yttrium Iron Garnet”, R. C. Myers (**invited**).
27. November 2015, *OSU Physics Department*, Columbus, OH, “Fabrication and Simulation of Waveguides for AlGa_N Nanowire LEDs”, Emilio A. Codecido, ATM G. Sarwar, Brelon J. May, and Roberto C. Myers (student poster).
28. October 2015, *SACNAS National Conference*, Washington D.C., “Towards UV lasing: Fabrication and Simulation of Waveguides for Nanowire LEDs”, Emilio A. Codecido, ATM G. Sarwar, Brelon J. May, and Roberto C. Myers (student talk).
29. October 2015, *APS Bridge Conference*, Miami, FL, “Fabrication of a Cavity for Deep Ultraviolet Edge Emitting Nanowire LEDs”, Emilio A. Codecido, ATM G. Sarwar, Brelon J. May, and Roberto C. Myers (student poster).
30. October 2015, *North American Molecular Beam Epitaxy Conference*, Riviera Maya, Mexico, “Three-Dimensional Lattice Matching for Epitaxially Embedded Nanoparticles”. B. J. May, P. M. Anderson and R. C. Myers (student poster).
31. October 2015, *North American Molecular Beam Epitaxy Conference*, Riviera Maya, Mexico, “III-N Nanowires on Metal Foils”. B. J. May, ATM Sarwar and R. C. Myers (student poster).
32. September 2015, *Workshop on non-linear spin-heat interactions*, Columbus, OH, “Thermally-induced long range magnon spin currents in YIG”, R. C. Myers (**invited**).
33. July 2015, IEEE Photonics Society Summer Topics Meeting, Nassau, Bahamas, “Ultraviolet nanowire LEDs on silicon”, R. C. Myers (**invited**).
34. June 2015, *Compound Semiconductor Week*, Santa Barbara, CA, “Polarization hole engineering in deep-ultraviolet nanowire LEDs”, ATM Sarwar, Santino Carnevale, Thomas Kent, Brelon May, Fan Yang, David McComb, and Roberto Myers (Student talk).
35. June 2015, *Device Research Conference*, Columbus, OH, “Moving spins with heat: prospects for thermally powered spintronics”, R. C. Myers (**invited**).
36. June 2015, *Device Research Conference*, Columbus, OH, “Tunnel Junction Integrated Ultraviolet Nanowire LEDs”, ATM Golam Sarwar, Brelon May, and Roberto C. Myers (Student talk).
37. June 2015, *Electronic Materials Conference*, Columbus, OH, “Determining the length scale of thermally excited magnon spins using a non-local spin-Seebeck detection geometry”, Brandon L. Giles, Zihao Yang, John Jamison, Roberto C. Myers. (student talk)
38. June 2015, *Electronic Materials Conference*, Columbus, OH, “Ultrafast Time-correlated Measurements of the Spin Seebeck Effect in YIG,” John S. Jamison, Brandon L. Giles, Zihao Yang, and Roberto C. Myers (student talk)
39. June 2015, *Electronic Materials Conference*, Columbus, OH, “InN Nanowires on Patterned GaN Nanowires”, ATM Golam Sarwar, Benjamin Leung, George T Wang, and Roberto C. Myers (Student talk).

40. June 2015, *Electronic Materials Conference*, Columbus, OH, “Fabrication of a Cavity for Deep Ultraviolet Edge Emitting Nanowire LEDs”, Emilio A. Codecido, ATM G. Sarwar, Brelon J. May, and Roberto C. Myers (student talk).
41. June 2015, *Electronic Materials Conference*, Columbus, OH, “Three-Dimensional Lattice Matching for Epitaxially Embedded Nanoparticles”. B. J. May, P. M. Anderson and R C. Myers (student talk).
42. May 2015, *IMR Materials Week*, Columbus, OH, “Non-local Thermal Spin Detection: Mapping the Magnon Diffusion Length in Yttrium Iron Garnet”. Brandon L. Giles, Zihao Yang, John S. Jamison, Roberto C. Myers. (student poster)
43. May 2015, *IMR Materials Week*, Columbus, OH, “Three-Dimensional Lattice Matching for Epitaxially Embedded Nanoparticles”. B. J. May, P. M. Anderson and R C. Myers (student poster, best poster award).
44. May 2015, *IMR Materials Week*, Columbus, OH, “Ultrafast Time-correlated Measurements of the Spin Seebeck Effect in YIG,” John S. Jamison, Brandon L. Giles, Zihao Yang, and Roberto C. Myers (student poster)
45. May 2015, *IMR Materials Week*, Columbus, OH, “Magnon, phonon and electron temperature profiles in Pt/YIG bi-layer structure”, Zihao Yang, Brandon L. Giles, John S. Jamison and Roberto C. Myers (student poster).
46. May 2015, *IMR Materials Week*, Columbus, OH, “Fabrication of a Cavity for Deep Ultraviolet Edge Emitting Nanowire LEDs”, Emilio A. Codecido, ATM G. Sarwar, Brelon J. May, and Roberto C. Myers (student poster).
47. March 2015, *March Meeting of the American Physical Society*, San Antonio, TX, “Non-local thermal spin detection: Mapping the magnon spin diffusion length in YIG”. Brandon L. Giles, Zihao Yang, John S. Jamison, Roberto C. Myers. (student talk)
48. March 2015, *March Meeting of the American Physical Society*, San Antonio, TX, “Finite-element modeling of thermal gradients during non-local thermal spin injection”, Zihao Yang, Brandon L. Giles, John S. Jamison and Roberto C. Myers (student talk).
49. March 2015, *March Meeting of the American Physical Society*, San Antonio, TX “Ultrafast Time-correlated Measurements of the Spin Seebeck Effect in YIG,” John S. Jamison, Brandon L. Giles, Zihao Yang, and Roberto C. Myers (student talk)
50. March 2015, *March Meeting of the American Physical Society*, San Antonio, TX, “Subthermal magnon driven longitudinal spin Seebeck effect in yttrium iron garnet”, Hyungyu Jin, Stephen Boona, Zihao Yang, Roberto C. Myers and Joseph P. Heremans (student talk).
51. February 2015, SPIE Photonics West, San Francisco, California, “Tunnel-junction-enhanced ultraviolet nanowire light-emitting diodes integrated on silicon”, A. T. M. G. Sarwar, B. J. May, and R. C. Myers (student talk).
52. June 2014, *Electronic Materials Conference*, Santa Barbara, California, “p-type conductivity in MoS₂ by Nb doping”, Edwin W. Lee II, M. Laskar, D. N. Nath, L. Ma, C. H. Lee, T. Kent, Z. Yang, R. Mishra, M. A. Roldan, J.-C. Idrobo, S. T. Pantelides, S. J. Pennycook, R. Myers, Y. Wu, S. Rajan (student talk)
53. June 2014, *Electronic Materials Conference*, Santa Barbara, California, “Tunable Deep Ultraviolet Electroluminescence from Nanowire Light Emitting Diodes with Al_xGa_{1-x}N Active Regions”. T. F. Kent, S. D. Carnevale, A. T. M. G. Sarwar, and R. C. Myers (student talk).

54. June 2014, *Electronic Materials Conference*, Santa Barbara, California, “Engineering the polarization hole doping of graded nanowire ultraviolet LEDs integrated on Molybdenum and Silicon”. A. T. M. G. Sarwar, S. D. Carnevale, T. F. Kent and R. C. Myers (student talk).
55. May 2014, *IMR Materials Week*, Columbus, Ohio, “Non-local Thermal Spin Injection: Mapping the Magnon Diffusion Length in Yttrium Iron Garnet”. Brandon L. Giles, Zihao Yang, John Jamison, Thomas F. Kent, Joseph P. Heremans, and Roberto C. Myers (student poster).
56. May 2014, *IMR Materials Week*, Columbus, Ohio, “Evidence for a charge accumulation layer at the platinum to yttrium iron garnet interface”. Zihao Yang, A.T.M. Golam Sarwar, Thomas F. Kent, Joseph P. Heremans, and Roberto C. Myers (student poster, best poster award).
57. May 2014, *IMR Materials Week*, Columbus, Ohio, “The role of photocarriers in thermally generated spin currents in yttrium iron garnet”. John Jamison, Brandon Giles, Zihao Yang, Roberto C. Myers (student poster).
58. May 2014, *IMR Materials Week*, Columbus, Ohio, “Polarization-induced UV nanowire LEDs on silicon and molybdenum films”. A. T. M. G. Sarwar, S. D. Carnevale, T. F. Kent, F. Yang, R. C. Myers (student poster).
59. May 2014, *IMR Materials Week*, Columbus, Ohio, “Tunable Deep Ultraviolet Electroluminescence from Nanowire Light Emitting Diodes with $\text{Al}_x\text{Ga}_{1-x}\text{N}$ Active Regions”. T. F. Kent, S. D. Carnevale, A. T. M. G. Sarwar, and R. C. Myers (student poster).
60. May 2014, *IMR Materials Week*, Columbus, Ohio, “Growth kinetics of epitaxially encapsulated cubic GdN in hexagonal GaN”. Breton J. May, Thomas F. Kent, Matthew Bowers, Jim R. Riley, Lincoln J. Lahoun, Michael J. Mills, and Roberto C. Myers (student poster).
61. March 2014, *March Meeting of the American Physical Society*, Denver, Colorado, “Ultrafast Optothermal measurements of spin-Seebeck effect”, Brandon Giles, Zihao Yang, Thomas Kent, Roberto Myers (student poster).
62. February 2014, *SPIE Photonics West*, San Francisco, California, “Polarization-Induced Nanowire Light Emitting Diodes with Deep Ultraviolet Emission”, T. F. Kent, S. D. Carnevale, A. T. M. G. Sarwar, and R. C. Myers (student talk).
63. February 2014, Lawrence Symposium on Epitaxy, Scottsdale AZ, “Wide bandgap heterostructures, tunnel junctions and nanowires”, R. C. Myers (**invited**).
64. August 2013, *International Conference on Nitride Semiconductors*, Washington, D.C., “Ferromagnetism and magneto-transport in Gd-doped AlN-GaN two-dimensional electron gases”, Z. Yang, T. F. Kent, H. Jin, J. Yang, and R. C. Myers (student talk).
65. August 2013, *International Conference on Nitride Semiconductors*, Washington, D.C., “Atomically Sharp 318nm Gd:AlGaN Ultraviolet Light Emitting Diodes on Si with Low Threshold Voltage”, Thomas F. Kent, Santino D. Carnevale, and Roberto C. Myers (student poster).
66. June 2013, *Electronic Materials Conference*, Notre Dame, In, “Mixed Polarity in Polarization-Induced Nanowire Light Emitting Diodes”, S. D. Carnevale, T. F. Kent, C. Selcu, P.J. Phillips, A. T. M. G. Sarwar, R. F. Klie, R. C. Myers (student talk).
67. June 2013, *Electronic Materials Conference*, Notre Dame, In, “GdxAl1-xN Nanowire Electroluminescent Devices With Atomically Sharp 318nm Ultraviolet Emission and Ultralow Operating Voltage”, Thomas. F. Kent, Santino D. Carnevale, Roberto C. Myers (student talk).
68. June 2013, *Electronic Materials Conference*, Notre Dame, In, “Ferromagnetism and Magneto-Transport in Gd-Doped AlN-GaN Two-Dimensional Electron Gases”, Zihao Yang, Thomas F. Kent, Hyungyu Jin, Jing Yang, and Roberto C. Myers (student talk).

69. June 2013, *Electronic Materials Conference*, Notre Dame, In, “Self-assembled Hexagonal InN Micro-Mushrooms on Si by Plasma Assisted Molecular Beam Epitaxy”, A. T. M. G. Sarwar, T. F. Kent, S. D. Carnevale, and R. C. Myers (student talk).
70. June 2013, *Electronic Materials Conference*, Notre Dame, In, “Opto-thermal measurements of spin Seebeck effect in yttrium iron garnet”, B. L. Giles, Z. Yang, T.F. Kent, and R. C. Myers. (student talk)
71. May 2013, *IMR Materials Week*, Columbus, Ohio, “Ferromagnetism and magneto-transport in Gd-doped AlN-GaN two-dimensional electron gases”, Z. Yang, T. F. Kent, J. Yang, R. C. Myers (student poster, best poster award).
72. May 2013, *IMR Materials Week*, Columbus, Ohio, “On the electronic, photonic, and photovoltaic applications of III-N Nanowires”, A. T. M. G. Sarwar, S. D. Carnevale, M. R Laskar, T. F. Kent, P. J Phillips, C. Marginean, M. J. Mills, R. C. Myers (student poster).
73. May 2013, *IMR Materials Week*, Columbus, Ohio, “GaN/AlN Double Barrier Nanowires Resonant Tunneling Diode with High Tunneling Current Density and Peak-to-Valley Current Ratio”, Y. Shao, S. D. Carnevale, A. T. M. G. Sarwar, R. C. Myers, W. Lu (student poster).
74. May 2013, *IMR Materials Week*, Columbus, Ohio, “Mixed Polarity in Polarization-Induced Nanowire Light Emitting Diodes”, S. D. Carnevale, T. F. Kent, P. J. Phillips, A. T. M. G. Sarwar, C. Selcu, R. F. Klie, S. Rajan, R. C. Myers (student poster).
75. May 2013, *IMR Materials Week*, Columbus, Ohio, “Opto-thermal measurements of spin Seebeck effect in yttrium iron garnet”, B. L. Giles, Z. Yang, T. F. Kent, R. C. Myers (student poster).
76. May 2013, *IMR Materials Week*, Columbus, Ohio, “Atomically Sharp 318nm Gd:AlGaN Ultraviolet Light Emitting Diodes on Si with Low Threshold Voltage”, T. F. Kent, S. D. Carnevale, R. C. Myers (student poster).
77. May 2013, Spin Caloritronics V, Columbus, OH, “Transient opto-thermally induced spin currents using ultrafast laser pulses”, R. C. Myers (**invited**).
78. March 2013, *March Meeting of the American Physical Society*, Baltimore, MD, “Advanced scanning transmission electron microscopy characterization of UV LED nanowires”, Patrick Phillips, Rajan Kumar, Santino Carnevale, Roberto Myers, Robert Klie (talk).
79. March 2013, *March Meeting of the American Physical Society*, Baltimore, MD, “Towards FIB patterning of commercial SiN membranes for sensitive magneto-calorimetry”, Kurtis Wickey, Thomas Kent, Roberto Myers, Joseph Heremans, Ezekiel Johnston-Halperin (talk).
80. March 2013, *March Meeting of the American Physical Society*, Baltimore, MD, “Spin-Seebeck effect in amorphous ferromagnetic alloys”, Hyungyu Jin, Zihao Yang, Roberto Myers, Joseph Heremans (talk).
81. March 2013, *March Meeting of the American Physical Society*, Baltimore, MD, “Investigation of the electronic transport in polarization-induced nanowires using conductive atomic force microscopy (AFM)”, C. Selcu, S. D. Carnevale, T. F. Kent, F. Akyol, P. J. Phillips, M. J. Mills, S. Rajan, J. P. Pelz, R. C. Myers (talk).
82. March 2013, *March Meeting of the American Physical Society*, Baltimore, MD, “Ferromagnetism and infrared electrodynamics of GaMnAs”, B. C. Chapler, S. Mack, R. C. Myers, K. S. Burch, N. Samarth, D. D. Awschalom, D. N. Basov (talk).
83. January 2013, *Physics and Chemistry of Surfaces and Interfaces (PCSI-40)*, Waikoloa, HI, “Polarization-induced pn-junctions in wide band gap nanowires”, R. C. Myers (**invited**).

84. January 2013, *12th Joint MMM-Intermag conference*, Chicago, Ill, “Experimental aspects of spin caloritronics”, R. C. Myers (**invited tutorial**).
85. November 2012, *Materials Research Society Fall Meeting*, Boston, MA, “Epitaxial Growth and Ferromagnetism of GdN-III-nitride Nanocomposites and Their Potential Device Applications”, T. F. Kent, J. Yang, L. Yang, S. D. Carnevale, M. J. Mills, R. C. Myers (student talk).
86. November 2012, *Materials Research Society Fall Meeting*, Boston, MA, “Polarization-induced pn-diodes in III-nitride Nanowires with Ultraviolet Electroluminescence”, S. D. Carnevale, T. F. Kent, P. J. Phillips, M. J. Mills, S. Rajan, R. C. Myers (student talk).
87. November 2012, *Institute for Energy Efficiency Seminar, Center for Energy Efficient Materials, University of California*, Santa Barbara, CA, “Using Asymmetric Crystals for New Functionality: Moving Spins With Heat Using Spin-Orbit Coupling and Dopant-Less Diodes Using Polarization Charge”, R. C. Myers (**invited seminar**).
88. October 2012, *Condensed, Atomic, and Molecular Physics Seminar, Dept. of Physics, Penn State University*, State College, PA, “Moving spins with heat without magnetic atoms”, R. C. Myers (**invited seminar**).
89. October 2012, *Complex Quantum Systems, Physics Dept. Seminar, University of Texas*, Austin, Texas, “Using Asymmetric Crystals for New Functionality: Moving Spins With Heat Using Spin-Orbit Coupling and Dopant-Less Diodes Using Polarization Charge.”, R. C. Myers (**invited seminar**).
90. September 2012, *Materials Science and Engineering Dept. Seminar, Ohio State University*, Columbus, Ohio, “Using Asymmetric Crystals for New Functionality: Moving Spins With Heat Using Spin-Orbit Coupling and Dopant-Less Diodes Using Polarization Charge.”, R. C. Myers (**invited seminar**).
91. September 2012, *Materials Science and Engineering Dept. Seminar, University of Pennsylvania*, Philadelphia, PA, “Using Asymmetric Crystals for New Functionality: Moving Spins With Heat Using Spin-Orbit Coupling and Dopant-Less Diodes Using Polarization Charge.”, R. C. Myers (**invited seminar**).
92. August 2012, *SPIE Optics and Photonics*, San Diego, CA, “Graded nanowire LEDs without impurity doping by polarization engineering”, R. C. Myers (**invited**).
93. August 2012, *Physics and Applications of Spin-related Phenomena in Semiconductors (PASPS-7 conference)*, Eindhoven, The Netherlands, “Giant spin-Seebeck effect in InSb in the ultra-quantum limit”, J. P. Heremans, C. M. Jaworski, E. Johnston-Halperin, and R. C. Myers (invited talk).
94. August 2012, *39th International Symposium on Compound Semiconductors*, Santa Barbara, CA, “Polarization-Induced pn-Diodes in Wide Band Gap Nanowires with Tunable Deep Ultraviolet Electroluminescence”, S. D. Carnevale, T. F. Kent, P. J. Phillips, M. J. Mills, S. Rajan, and R. C. Myers (student talk).
95. June 2012, *Electronic Materials Conference*, State College, PA, “Polarization-induced pn-diodes in wide band gap nanowires with ultraviolet electroluminescence”, S. D. Carnevale, T.F. Kent, P. J. Phillips, M. J. Mills, S. Rajan R. C. Myers (student talk, Best Student Presentation Award).
96. June 2012, *Electronic Materials Conference*, State College, PA, “MBE growth and characterization of graded InGaN nanowires for broadband photodetectors”, M. R. Laskar, S. D. Carnevale, A. T. M. Sarwar, P. J. Phillips and R. C. Myers (student talk).
97. June 2012, *Electronic Materials Conference*, State College, PA, “GdN Nano-islands Enabled Inter-band Tunneling in III-Nitrides”, Sriram Krishnamoorthy, Jing Yang, Pil Sung Park, Roberto Myers, and Siddharth Rajan (student talk).

98. June 2012, *Electronic Materials Conference*, State College, PA, “GaN/AlN Coaxial Nanowire Resonant Tunneling Diode on Silicon”, A.T.M.G. Sarwar, S. D. Carnevale, C. Marginean, P. J. Phillips, T. F. Kent, M. J. Mills and R. C. Myers (student talk).
99. June 2012, *Electronic Materials Conference*, State College, PA, “Epitaxial Growth and Ferromagnetism of GdN Nano-islands Embedded in GaN”, T. F. Kent, Jing Yang, Limei Yang, M. J. Mills and R. C. Myers (student talk).
100. June 2012, *Electronic Materials Conference*, State College, PA, “Investigation of Deep Levels in M-plane GaN Grown by Ammonia based Molecular Beam Epitaxy with Different V/III Ratios”, Zeng Zhang, Christophe Hurni, Aaron Arehart, Jing Yang, Roberto Myers, James Speck and Steven Ringel (student talk).
101. June 2012, *Electronic Materials Conference*, State College, PA, “Giant spin-Seebeck effect in a non-magnetic semiconductor, InSb”, R. C. Myers, C. M. Jaworski, E. Johnston-Halperin, and J. P. Heremans (talk).
102. June 2012, *Device Research Conference*, State College, PA, “Record low tunnel junction specific resistivity ($<3 \times 10^{-4} \text{ Wcm}^2$) in GaN inter-band tunnel junctions,” Sriram Krishnamoorthy, Fatih Akyol, Jing Yang, Pil Sung Park, Roberto C. Myers, and Siddharth Rajan (student talk).
103. April 2012, *Materials Research Society Spring Meeting*, San Francisco, CA, “Spin-Seebeck Power Generation”, Christopher M. Jaworski, Roberto C. Myers, Joseph P. Heremans (student talk).
104. April 2012, *Energy Materials Nanotechnology Meeting*, Orlando, FL, “Polarization-induced pn-junctions in wide band gap nanowires with ultraviolet electroluminescence”, R. C. Myers (**invited**).
105. March 2012, *March Meeting of the American Physical Society*, Boston, Massachusetts, “Embedded Ferromagnetic GdN Nano-Islands in GaN by Molecular Beam Epitaxy”, T. F. Kent, J. Yang, L. Yang, M. J. Mills, R. C. Myers (student talk).
106. March 2012, *March Meeting of the American Physical Society*, Boston, Massachusetts, “Electronic transport in individual, vertical, catalyst free GaN/AlN nanowires”, Camelia Marginean, Santino Carnevale, Patrick Phillips, Thomas Kent, Denis Pelekhov, Michael Mills, Roberto Myers (student talk).
107. March 2012, *March Meeting of the American Physical Society*, Boston, Massachusetts, “Spin-Seebeck Effect in III-V Based Semiconductors”, Christopher M. Jaworski, Roberto C. Myers, Joseph P. Heremans (student talk).
108. November 2011, *Materials Research Society Fall Meeting*, Boston, MA, “Control of growth kinetics for three-dimensional III-nitride nano-heterostructures towards nanowire devices”, S. D. Carnevale, P. J. Phillips, T. F. Kent, J. Yang, M. J. Mills, R. C. Myers (student talk).
109. October 2011, *Condensed Matter Seminar, Physics Department, Case Western Reserve University*, Cleveland, Ohio, “Moving spins with heat: spin-Seebeck effect in a ferromagnetic semiconductor and Polarization-induced pn-junctions in wide band gap semiconductor nanowires”, R. C. Myers (**invited seminar**).
110. October 2011, *AVS 58th Annual International Symposium and Exhibition*, Nashville, Tennessee, “Control of growth kinetics for three-dimensional III-nitride nano-heterostructures towards nanowire devices”, S. D. Carnevale, J. Yang, P. J. Phillips, M. J. Mills, and R. C. Myers (student talk).
111. September 2011, *IMR Materials Week*, Columbus, Ohio, “Moving spins with heat: spin-Seebeck effect in a ferromagnetic semiconductor”, R. C. Myers (**invited**).

112. September 2011, *IMR Materials Week*, Columbus, Ohio, “Three-dimensional wide band gap nanowire heterostructure electronic and photonic devices”, S. D. Carnevale, P. J. Phillips, T. F. Kent, J. Yang, M. J. Mills, R. C. Myers (student poster).
113. September 2011, *IMR Materials Week*, Columbus, Ohio, “Embedded Ferromagnetic GdN Nano-Islands in GaN By Plasma Assisted Molecular Beam Epitaxy”, T. F. Kent, J. Yang, P. J. Phillips, M. J. Mills, R. C. Myers (student poster).
114. September 2011, *IMR Materials Week*, Columbus, Ohio, “Structural properties of short period GaN/AlN superlattices for intersubband photonics”, J. Yang, S. D. Carnevale, M. R. Brenner, R. C. Myers (student poster).
115. September 2011, *IMR Materials Week*, Columbus, Ohio, “The spin-Seebeck effect: A phonon driven spin distribution”, C. M. Jaworski, K. J. Wickey, J. Yang, S. Mack, D. D. Awschalom, E. Johnston-Halperin, R. C. Myers, J. P. Heremans (student poster).
116. September 2011, *IMR Materials Week*, Columbus, Ohio, “Fabrication of suspended GaN membranes for spin calorimetry”, K. J. Wickey, S. D. Carnevale, T. F. Kent, J. P. Heremans, R. C. Myers, E. Johnston-Halperin (student poster).
117. August 2011, *6th International School and Conference on Spintronics and Quantum Information Technology (SPINTECH6)*, Matsue, Japan, “Phonon-driven spin distribution in GaMnAs: spin-Seebeck effect”, R. C. Myers, C. M. Jaworski, K. J. Wickey, J. Yang, S. Mack, D. D. Awschalom, E. Johnston-Halperin, and J. P. Heremans (talk).
118. July 2011, *International Workshop on Spin Currents*, Sendai, Japan, “Phonon-driven spin currents due to the spin-Seebeck effect in GaMnAs”, R. C. Myers (**invited**).
119. June 2011, *Electronic Materials Conference*, Santa Barbara, California, “Control of growth kinetics for three-dimensional III-nitride nano-heterostructures towards nanowire devices”, S. D. Carnevale, J. Yang, P. J. Phillips, M. J. Mills, and R.C. Myers (student talk).
120. June 2011, *Embedded Nanoparticle Workshop, University of California, Santa Barbara*, “Growth study of GdN in GaN by Plasma-Assisted Molecular Beam Epitaxy”, J. Yang, T. F. Kent, L.-M. Yang, S. D. Carnevale, M. J. Mills, R. C. Myers (student talk).
121. June 2011, *American Nuclear Society Annual Meeting*, Hollywood, Florida, “A Gadolinium Doped Superlattice GaN Schottky Diode for Neutron Detection”, J. Wang, P. Kandlakunta, T. F. Kent, J. Carlin, D. R. Hoy, R. C. Myers, L. Cao (student talk).
122. June 2011, *Department of Physics Seminar, University of Basel*, Basel, Switzerland, “3D nanowire heterostructure from III-Nitrides and Ferromagnetic Gd:GaN”, R. C. Myers (**invited seminar**).
123. May 2011, *Walter Schottky Institute Department Seminar, Technical University Munich*, Munich, Germany, “Exploring semiconductor functionality at extreme length scales: macroscopic thermal spintronics and 3D nanowire heterostructures”, R. C. Myers (**invited seminar**).
124. May 2011, *Spin Caloritronics III Workshop, Lorentz Center*, Leiden, The Netherlands, “Phonon driven spin-Seebeck in GaMnAs, MnAs, and MnAs/GaMnAs”, R. C. Myers (**invited**).
125. April 2011, *IEEE International Magnetism Conference*, Taipei, Taiwan, “Observation of the spin-Seebeck effect in a semiconductor”, C. M. Jaworski, J. Yang, S. Mack, D. D. Awschalom, J. P. Heremans, R. C. Myers (student invited talk).
126. March 2011, *March Meeting of the German Physical Society (DPG)*, Dresden, Germany, “Spin Seebeck effect: Local nature of phonon-driven spin currents in GaMnAs”, R. C. Myers (**invited**).

127. March 2011, *March Meeting of the American Physical Society*, Dallas, Texas, “Spin Seebeck effect: Local nature of phonon-driven spin currents in GaMnAs”, R. C. Myers (**invited**).
128. March 2011, *March Meeting of the American Physical Society*, Dallas, Texas, “On magnetism and the insulator-to-metal transition in p-doped GaAs”, Brian Chapler, R.C. Myers, S. Mack, A. Frenzel, B. C. Pursley, K.S. Burch, E.J. Singley, A.M. Dattelbaum, N. Samarth, D.D. Awschalom, D. N. Basov (student talk).
129. March 2011, *March Meeting of the American Physical Society*, Dallas, Texas, “Controlling Nanostructure Self-assembly for Design of Three-dimensional Semiconductor Heterostructures”, Santino Carnevale, J. Yang, P. J. Phillips, M. J. Mills, R. C. Myers (student talk).
130. March 2011, *March Meeting of the American Physical Society*, Dallas, Texas, “Effect of growth kinetics on intersubband transitions in GaN/AlN multiple quantum wells”, Jing Yang, S. D. Carnevale, T. F. Kent, M. R. Brenner, R. C. Myers (student talk).
131. March 2011, *March Meeting of the American Physical Society*, Dallas, Texas, “Room Temperature Ferromagnetism in GaN-AlN Quantum Confined Heterostructures”, Thomas Kent, J. Yang, L. Yang, S. D. Carnevale, B. Niles, D. R. Hoy, Y.-H. Chiu, E. Johnston-Halperin, M. J. Mills, R. C. Myers (student talk).
132. March 2011, *March Meeting of the American Physical Society*, Dallas, Texas, “The spin-Seebeck effect in a GaMnAs/MnAs bilayer”, Chris Jaworski, J. Yang, S. Mack, D. D. Awschalom, J. P. Heremans, R. C. Myers (student talk).
133. September 2010, *International Workshop on Nitride semiconductors*, Tampa, Florida, “Precise design of GaN nanowire heterostructures by separating nucleation and growth processes”, S. Carnevale, J. Yang, P. Phillips, M. J. Mills, and R. C. Myers (student poster).
134. September 2010, *IMR Materials Week*, Columbus, Ohio, “Precise design of GaN nanowire heterostructures by separating nucleation and growth processes”, S. D. Carnevale, J. Yang, P. J. Phillips, M. J. Mills, R. C. Myers (student poster).
135. September 2010, *IMR Materials Week*, Columbus, Ohio, “Epitaxial growth of GaN/AlN superlattices for intersubband transitions”, J. Yang, S. D. Carnevale, D. R. Hoy, T. F. Kent, R. C. Myers (student poster).
136. September 2010, *IMR Materials Week*, Columbus, Ohio, “Observation of the spin Seebeck effect in a ferromagnetic semiconductor”, C. M. Jaworski, J. Yang, S. Mack, D. D. Awschalom, J. P. Heremans, R. C. Myers (student poster).
137. September 2010, *IMR Materials Week*, Columbus, Ohio, “Wide bandgap AlN/GaN heterostructures for room temperature semiconductor spintronics and ferromagnetism”, D. R. Hoy, J. Yang, T. F. Kent, S. D. Carnevale, L. Yang, Y. Pu, M. J. Mills, E. Johnston-Halperin, R. C. Myers (student poster).
138. September 2010, *IMR Materials Week*, Columbus, Ohio, “Wide band gap nanostructures for magneto-electronics”, R. C. Myers (**invited**).
139. September 2010, *Condensed Matter Seminar, Physics Department, University of Michigan*, Ann Arbor, Michigan, “Wide bandgap nanostructures for magneto-electronics”, R. C. Myers (**invited seminar**).
140. June 2010, *Electronic Materials Conference*, South Bend, Indiana, “Engineering ferromagnetism in Gd-doped GaN two-dimensional electron gases”, J. Yang, D. R. Hoy, S. D. Carnevale, E. Uchaker, R. C. Myers (student talk).

141. June 2010, *Electronic Materials Conference*, South Bend, Indiana, “Self-assembled GaN/AlN nanowire superlattices on Si toward non-polar intersubband photonics”, S. D. Carnevale, J. Yang, P. Phillips, M.J. Mills, and R. C. Myers (student talk).
142. April 2010, *Thermoelectric Transport Fundamentals*, Shanghai Institute of Ceramics, *Hangzhou, China*, “The Spin-Seebeck effect in a semiconductor”, Joseph P. Heremans, Christopher. M. Jaworski, Jing Yang, Shawn Mack, David D. Awschalom, and Roberto C. Myers (invited talk).
143. April 2010, *Electrical Engineering Department Seminar, Notre Dame University*, South Bend, Indiana, “Wide band gap nanostructures toward room temperature semiconductor spintronics”, R. C. Myers (**invited seminar**).
144. March 2010, *March Meeting of the American Physical Society*, Portland, Oregon, “Infrared probe of charge density modification in GaMnAs films”, Brian Chapler, R.C. Myers, S. Mack, E. Namdas, J.D. Yuen, A.J. Heeger, N. Samarth, M.C. Martin, K.S. Burch, D.N. Basov, D.D. Awschalom (student talk).
145. March 2010, *March Meeting of the American Physical Society*, Portland, Oregon, “Spin dynamics of magnetic ions in semiconductor optical cavities”, G. Calusine, R. C. Myers, S. Mack, D. D. Awschalom (student talk).
146. September 2009, *IMR Materials Week*, Columbus, Ohio, “Observation of the spin Seebeck effect in a ferromagnetic semiconductor”, C. M. Jaworski, J. Yang, S. Mack, D. D. Awschalom, J. P. Heremans, R. C. Myers (student poster).
147. September 2009, *IMR Materials Week*, Columbus, Ohio, “III-Nitride self-assembled nanowire heterostructures: growth kinetics and optical properties”, J. Yang, K. Swaminathan, S. A. Ringel, R. C. Myers (student poster).
148. September 2009, *IMR Materials Week*, Columbus, Ohio, “Epitaxial growth of Nitride heterostructures for photonics, electronics, and spintronics”, R. C. Myers (**invited**).
149. March 2009, *March Meeting of the American Physical Society*, Pittsburgh, Pennsylvania, “Engineering the interlayer exchange coupling in hybrid ferromagnetic metal/semiconductor heterostructures”, M. J. Wilson, M. Zhu, P. Schiffer, N. Samarth, R. C. Myers, D. D. Awschalom, M. E. Flatte (student talk).
150. March 2009, *March Meeting of the American Physical Society*, Pittsburgh, Pennsylvania, “Infrared probe of Ga_{1-x}Mn_xAs films with controlled disorder and compensation”, B. Chapler, R. C. Myers, S. Mack, D. D. Awschalom, M. C. Martin, A. Dattelbaum, K. S. Burch, D. N. Basov (student talk).
151. March 2009, *March Meeting of the American Physical Society*, Pittsburgh, Pennsylvania, “Dynamic polarization of Mn spins coupled to vertical optical cavities”, G. Calusine, R. C. Myers, D. D. Awschalom (student talk).
152. October 2008, *Center for Electronic/Magnetic Nanoscale Composite Multifunctional Materials (ENCOMM) Seminar*, Columbus, Ohio, “Semiconductor heterostructures for spintronics and wide band gap optoelectronics”, R. C. Myers (**invited seminar**).
153. September 2008, *IMR Materials Week*, Columbus, Ohio, “Wide Bandgap Semiconductor Heterostructures: Highly Confined Quantum Structure for Devices”, R. C. Myers (**invited**).
154. August 2008, *SPIE Optics+Photonics*, San Diego, California, “Photonic manipulation of magnetic ions in semiconductors”, R. C. Myers (**invited**).
155. May 2008, *IEEE International Magnetism Conference*, Madrid, Spain, “Recent developments in single spin manipulation in semiconductors”, R. C. Myers (**invited**).

156. May 2008, *Materials Science and Engineering Department Seminar, The Ohio State University, Columbus*, “Engineering Spin Landscapes in Semiconductors: From Bulk Ferromagnetism to Single Moments”, R. C. Myers (**invited seminar**).
157. April 2008, *Electrical and Computer Engineering Department Seminar, University of Texas, Austin*, “Engineering Spin Landscapes in Semiconductors: From Bulk Ferromagnetism to Single Moments”, R. C. Myers (**invited seminar**).
158. March 2008, *March Meeting of the American Physical Society, New Orleans, Louisiana*, “Microspectroscopy of $\text{Ga}_{1-x}\text{Mn}_x\text{As}$ and $\text{Ga}_{1-x}\text{Be}_x\text{As}$ films with gradient doping and compensation”, B. Chapler, R. C. Myers, D. D. Awschalom, M. C. Martin, K. S. Burch, D. N. Basov (talk).
159. March 2008, *March Meeting of the American Physical Society, New Orleans, Louisiana*, “Carrier Dynamics in Microdisk Photonic Molecules”, F. M. Mendoza, R. C. Myers, G. Calusine, A. C. Gossard, D. D. Awschalom, X. Li, B. J. Cooley, N. Samarth (talk).
160. March 2008, *March Meeting of the American Physical Society, New Orleans, Louisiana*, “Stoichiometric growth of high Curie temperature heavily-alloyed GaMnAs”, S. Mack, R.C. Myers, J. T. Heron, A. C. Gossard, D. D. Awschalom (talk).
161. March 2008, *March Meeting of the American Physical Society, New Orleans, Louisiana*, “Zero-field optical manipulation of magnetic ions in semiconductors”, R. C. Myers (**invited**).
162. February 2008, *Chemical Engineering and Materials Science Department Seminar, University of Minnesota*, “Engineering Spin Landscapes in Semiconductors: From Bulk Ferromagnetism to Single Moments”, R. C. Myers (**invited seminar**).
163. December 2007, *DARPA Center for Nanoscience Innovation for Defense Review, Los Angeles, California*, “Zero-field Optical Manipulation of Magnetic Ions in Semiconductors” R. C. Myers (talk).
164. November 2007, *52nd Magnetism and Magnetic Materials Conference, Tampa, Florida*, “Zero field manipulation of few magnetic spins in semiconductor quantum wells” R. C. Myers, M. H. Mikkelsen, J.-M. Tang, M. E. Flatté, A. C. Gossard, D. D. Awschalom (talk).
165. September 2007, *Western Institute of Nanoelectronics (WIN), Los Angeles, California*, “Photonic control of magnetic ions in semiconductors without magnetic fields” (Poster).
166. September 2007, *WIN, Los Angeles, California*, “Engineering ferromagnetism in GaMnAs” (Poster).
167. June 2007, *International Conference on Quantum Information, Rochester, New York*, “Enhancement of Spin Coherence in Microdisk Lasers”, S. Ghosh, F. M. Mendoza, R. C. Myers, A. C. Gossard, D. D. Awschalom, W.-H. Wang, X. Li, N. Samarth (talk).
168. March 2007, *March Meeting of the American Physical Society, Denver, Colorado*, “Mn ion spin dynamics in GaMnAs quantum wells”, R. C. Myers, M.H. Mikkelsen, N.P. Stern, A. C. Gossard, D. D. Awschalom (talk).
169. March 2007, *March Meeting of the American Physical Society, Denver, Colorado*, “Polarized stimulated emission from photonic molecule states in coupled microdisk lasers”, X. Li, B. J. Cooley, N. Samarth, F. M. Mendoza, R. C. Myers, D. D. Awschalom (talk).
170. March 2007, *March Meeting of the American Physical Society, Denver, Colorado*, “Insulating ferromagnetic (Ga, Mn) As with low Mn-doping”, B. L. Sheu, R. C. Myers, N. Samarth, D. D. Awschalom, P. Schiffer (talk).

171. March 2006, *March Meeting of the American Physical Society*, Baltimore, Maryland, “Controlling ferromagnetism in GaMnAs by arsenic defect engineering”, R. C. Myers, A. W. Jackson, A. C. Gossard, D. D. Awschalom, B. L. Sheu, P. Schiffer, N. Samarth (talk).
172. March 2006, *March Meeting of the American Physical Society*, Baltimore, Maryland, “Confinement engineering of s-d exchange interactions in GaMnAs quantum wells”, N. P. Stern, R. C. Myers, M. Poggio, A. C. Gossard, D. D. Awschalom (talk).
173. February 2006, *Gordon Research Conference on Ultrafast Phenomena in Cooperative Systems*, Buellton, California, “Optoelectronic control of spin exchange interactions in magnetic semiconductor heterostructures”, R. C. Myers (**invited**).
174. September 2005, *23rd North American Conference on Molecular Beam Epitaxy*, Santa Barbara, California, “Growth of paramagnetic GaMnAs and InGaMnAs quantum wells for optical spin spectroscopies”, R. C. Myers, M. Poggio, N. P. Stern, A. C. Gossard, D. D. Awschalom (talk).
175. August 2005, *Spintech III School and Conference* Awaji Island, Japan, “Engineering spin-polarization and coherence in magnetic semiconductor quantum wells”, R. C. Myers, M. Poggio, N. P. Stern, A. C. Gossard, D. D. Awschalom, K.C. Ku, X. Li, N. Samarth (talk).
176. March 2005, *March Meeting of the American Physical Society*, Los Angeles, California, “Antiferromagnetic s-d exchange coupling in GaMnAs”, R. C. Myers, M. Poggio, N. P. Stern, A. C. Gossard, D. D. Awschalom (talk).
177. March 2005, *March Meeting of the American Physical Society*, Los Angeles, California, “Time-resolved Spin Dynamics in Semiconductor Microdisk Lasers”, S. Ghosh, Y. Li, F. Meier, R. C. Myers, D. D. Awschalom, W.-H. Wang, N. Samarth (talk).
178. March 2005, *March Meeting of the American Physical Society*, Los Angeles, California, “Mechanical Control of Spin Coherence in Semiconductors”, H. Knotz, A. W. Holleitner, J. Stephens, R. C. Myers, D. D. Awschalom (talk).
179. March 2005, *March Meeting of the American Physical Society*, Los Angeles, California, “Observation of Ultrahigh Spontaneous Emission Factors in GaAs(Ga,Al)As Microdisk Lasers”, W. H. Wang, X. Li, R. C. Myers, S. Ghosh, D. D. Awschalom, N. Samarth (talk).
180. March 2005, *March Meeting of the American Physical Society*, Los Angeles, California, “Spin transfer and coherence in coupled quantum wells”, M. Poggio, G.M. Steeves, R. C. Myers, N. P. Stern, A. C. Gossard, D. D. Awschalom (talk).
181. March 2005, *March Meeting of the American Physical Society*, Los Angeles, California, “Current-Induced Polarization and the Spin-Hall effect in Semiconductors”, R. C. Myers (**invited**).
182. January 2005, *California NanoSystems Institute conference*, Santa Barbara, California, “Current-induced polarization and the spin Hall effect” (Poster).
183. November 2004, *DARPA Center for Nanoscience Innovation for Defense Review*, Los Angeles, California “Terahertz spin dynamics in magnetic parabolic quantum wells” (Poster).
184. July 2004, *The 3rd International Conference on Physics and Applications of Spin-Related Phenomena in Semiconductors (PASPS III)*, Santa Barbara, California, “Spin engineering with Mn ions in II-VI parabolic quantum wells” (Poster).
185. July 2004, *PASPS III*, Santa Barbara, California, “Voltage Controlled Spin-Polarization in III-V Quantum-Wells with Ferromagnetic Barriers” (Poster).
186. April 2004, *MARCO program review*, Cambridge, Massachusetts, “Electric and Magnetic Control of Nuclear Spins in Nanostructures” (Poster).

187. April 2004, *MARCO program review*, Cambridge, Massachusetts, “Voltage Controlled Spin-Polarization in III-V Quantum-Wells with Ferromagnetic Barriers” (Poster).
188. March 2004, *March Meeting of the American Physical Society*, Montreal, Canada, “Electrically tunable spin polarization in III-V quantum wells with a ferromagnetic barrier”, R. C. Myers, A. C. Gossard, D. D. Awschalom (talk).
189. March 2004, *March Meeting of the American Physical Society*, Montreal, Canada, “Gating Carrier Spin Dynamics in Coupled Quantum Wells”, G. M. Steeves, M. Poggio, R. C. Myers, A. C. Gossard, D. D. Awschalom (talk).
190. March 2004, *March Meeting of the American Physical Society*, Montreal, Canada, “Manipulating Single Domain Walls in Ferromagnetic (Ga, Mn)As Epilayers”, A. W. Holleitner, H. Knotz, R. C. Myers, A. C. Gossard, D. D. Awschalom (talk).
191. March 2004, *March Meeting of the American Physical Society*, Montreal, Canada, “Control of Electron Spin Coherence Using Landau Level Quantization in 2DEGs”, V. Sih, R. C. Myers, A. C. Gossard, D. D. Awschalom, W. H. Lau, M. E. Flatté (talk).
192. October 2003, *DARPA Spins/Spintronics Review*, Santa Monica, California, “Voltage controlled spin-polarization in a III-V quantum-well with a ferromagnetic barrier” (Poster).
193. September 2003, *21st North American Conference on Molecular Beam Epitaxy*, Keystone, Colorado, “Voltage controlled spin-polarization in a III-V quantum-well with a ferromagnetic barrier” (Poster).
194. March 2003, *March Meeting of the American Physical Society*, Austin, Texas, “Electronic Manipulation of Nuclear Spin in Semiconductor Quantum Wells”, M. Poggio, G. M. Steeves, R. C. Myers, A. C. Gossard, D. D. Awschalom (talk).
195. March 2003, *March Meeting of the American Physical Society*, Austin, Texas, “Manipulating electron spins using gigahertz g-tensor modulation”, Y. Kato, R. C. Myers, D. C. Driscoll, A. C. Gossard, D. D. Awschalom, J. Levy (talk).
196. March 2003, *March Meeting of the American Physical Society*, Austin, Texas, “Curie Temperatures above 110K in Annealed (Ga, Mn) As Epilayers”, K. C. Ku, S. J. Potashnik, R. F. Wang, S. H. Chun, P. Schiffer, N. Samarth, M. J. Seong, A. Mascarenhas, E. Johnston-Halperin, R. C. Myers, A. C. Gossard, D. D. Awschalom (talk).
197. March 2003, *March Meeting of the American Physical Society*, Austin, Texas, “Independent Electronic and Magnetic Doping of Digital Ferromagnetic Heterostructures”, E. Johnston-Halperin, J. A. Schuller, C. S. Gallinat, T. C. Kreutz, R. C. Myers, R. K. Kawakami, A. C. Gossard, D. D. Awschalom (talk).
198. March 2003, *March Meeting of the American Physical Society*, Austin, Texas, “Gated Induced Nuclear Depolarization in Parabolic Quantum Wells”, G. M. Steeves, M. Poggio, R. C. Myers, A. C. Gossard, D. D. Awschalom (talk).
199. March 2003, *March Meeting of the American Physical Society*, Austin, Texas, “Strain-engineered Ferromagnetism in Digital (Ga, Mn) As Heterostructures”, J. A. Schuller, E. Johnston-Halperin, C. S. Gallinat, R. C. Myers, A. C. Gossard, D. D. Awschalom (talk).
200. March 2003, *March Meeting of the American Physical Society*, Indianapolis, Indiana, “Integrated Cantilever Magnetometry of (Ga, Mn)As”, I. Meinel, R. C. Myers, J. Stephens, E. Johnston-Halperin, M. Hanson, A. C. Gossard, D. D. Awschalom (talk).

201. April 2001, *Annual Meeting of the American Ceramic Society*, Indianapolis, Indiana, “Substrate and Thickness Effects in $\text{Pr}_{1-x}\text{Ca}_x\text{MnO}_3$ Thin Films” R. C. Myers, A. Mamchik, S. McGill, J. Kikkawa, I-W. Chen (talk).

STUDENT MENTORING

Md M R Adnan – [2019+] PhD student, Electrical and Computer Engineering

Darpan Verma – [2018+] PhD student, Materials Science and Engineering

Elline Hettiaratchy – [2017+] PhD student, Materials Science and Engineering

John Jamison – [2013-2020] PhD candidate, Materials Science and Engineering

Brelon May – [2013-2019] PhD candidate, Materials Science and Engineering

Brandon Giles – [2012-2017] PhD, Materials Science and Engineering

Zihao Yang – [2011-2017] PhD, Electrical and Computer Engineering

Emilio Codecido – [2014-2017] MS, Physics

A.T.M. Golam Sarwar – [2011-2015] PhD, Electrical and Computer Engineering

Thomas Kent – [2010-2014] PhD, Materials Science and Engineering

Santino Carnevale– [2009-2013] PhD, Materials Science and Engineering. Won NSF Graduate Fellowship 2011 based on research in our group at OSU.

Daniel Hoy – [2009-2012] MS, Physics, 50% co-advised by Johnston-Halperin (physics)

Jing Yang – [2009-2013] PhD, Materials Science and Engineering

Postdoctoral Scholars

Masihhur R. Laskar – [2011-2013]

Alessandro Giussani – [2010-2011]

Undergraduate Students

Rachel Guest – [2019] CEM NSF MRSEC, REU student

Chris Moore – [2018] CEM NSF MRSEC, REU student

Arshad Ahamed – [2017-2018] Physics lab intern

Alexander Koenig – [2016-2017] Materials Science and Engineering. Senior design

Matthew Le – [2016] Physics intern

Matthew Belz – [2016-2017], Electrical and Computer Engineering. Honors Research

Austen Utendorf and Eric Clevenger – [2015-2016] Materials Science and Engineering. Senior design project

Shengchen Xue – [2015-2016] Materials Science and Engineering. Senior design project

Michael Dominguez – [2015] CEM NSF MRSEC, REU student

Kevin Krymowski and Nick Sulewski– [2014-2015] Materials Science and Engineering. Senior design project

Omar Gowayed – [2014] Senior design project s
 E. Clayton Cross – [2014] Senior design project
 Jacob Boyer – [2014] Senior design project
 Adam Dodson – [2013-2014] Senior design project
 Ethan Courtad, Walter Riker – [2013-2014] Materials Science and Engineering. Senior design project
 J. D. Lok – [2013-2014] Materials Science and Engineering. Senior design project
 Cameron Reese – [2013] Intern: Materials Science and Engineering. U-grad researcher
 Lauren Gerber – [2012-2013] Intern: Materials Science and Engineering.
 Laura Manuel – [2011-2012] NSF-REU
 Preston Coneley – [2011] Electrical and Computer Engineering.
 Brittany Niles – [2010-2011] Chemical and Biomolecular Engineering, academic year NSF-REU
 Dan Chmielewski, Brian Goodwin - [2010-2011] Materials Science and Engineering, Senior Design project
 Aaron Washburn, Bryan Esser – [2010-2011] Materials Science and Engineering, Senior Design project
 Evan Uchaker – [2009-2010] undergraduate, Materials Science and Engineering, Lab intern and Senior Design project.
 Anthony Tan – [2008- 2009] undergraduate, Materials Science and Engineering, Lab intern.

High School Students [2 previous]

Michael Huntley and David - [Feb. 2011]

SERVICE

Conference Organizing:

2016-present	NAMBE organizing <u>committee member</u>
2015	<u>Chair</u> , Workshop on Non-linear Spin-heat interactions
2013-present	<u>Programming Committee member</u> , <i>Electronic Materials Conference (EMC)</i> .
2013-present	<u>Programming Committee member</u> , <i>Physics and Chemistry of Surfaces and Interfaces (PCSI)</i> conference.
2012- 2013	<u>Co-chair</u> , Spin Caloritronics V Workshop

Department, College, University Service:

2019-present	Graduate Studies Committee (chair), Materials Science and Engineering
2017-present	Graduate Studies sub-committee of CAA
2017-present	Council on Academic Affairs (CAA)
2017-present	Faculty Senate
2015-present	Graduate Studies Committee member, Materials Science and Engineering

2015-2016 Search Committee (chair) – Leading committee to hire tenure-track faculty in MSE in area of energy storage and harvesting.

2014-2015 Targeted Hiring Search Committee (chair)

2014 Chair selection committee member, Materials Science and Engineering

2013-2015 College Core Committee member on Outcomes & Assessment

2012-2015 Chair Advisory Committee member, Materials Science and Engineering

2012-2013 Graduate Studies Committee member, Materials Science and Engineering

2012 College of Engineering, Energy and Sustainability Task Force member, OSU

2012-2013 CCBD Advisory Committee member

2011-2012 Undergraduate Studies Committee member, Materials Science and Engineering.

2010-2013 Committee of committees, Materials Science and Engineering.

2009-2010 Functional materials committee member. Assist in curriculum revision for quarters to semesters conversion. Wrote 3 undergraduate course syllabi.

2009-2010 Faculty secretary, Materials Science and Engineering.

2009-2015 Student Relations Committee member, MSE