

# Linda J. Olafsen (nee Blue)

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Department of Electrical and Computer Engineering  
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Scopus Author ID: 6701594646

## Education:

Duke University	Physics	Ph.D., 1997
Dissertation: "Photoluminescence and Tunneling in GaAs/Al <sub>x</sub> Ga <sub>1-x</sub> As Single Quantum Wells"		
Supervisor: Stephen W. Teitsworth		
Duke University	Physics	M.A., 1994
Prospectus: "Optical Studies of $\Gamma$ -X transitions in AlAs/GaAs/AlAs Heterostructures"		
Supervisor: Stephen W. Teitsworth		
Princeton University, <i>cum laude</i>	Physics	A.B., 1991
Thesis: "High Current Breakdown of the Dissipationless Quantum Hall Effect"		
Supervisor: Albert M. Chang		

## Research Experience:

2015–present	Associate Professor	Baylor University, Dept. of Electrical & Computer Engineering
2006–2014	Associate Professor	Baylor University, Dept. of Physics
2005–2006	Associate Professor	University of Kansas, Dept. of Physics & Astronomy (tenured)
1999–2005	Assistant Professor	University of Kansas, Dept. of Physics & Astronomy
1997–1999	Postdoctoral Fellow	Naval Research Laboratory Mid-infrared, antimonide-based semiconductor lasers, processing and optoelectronic characterization; integration of high-conductivity, transparent graphene contact layers; biomedical devices; demonstrated first room temperature (300 K) interband laser; demonstrated interband cascade laser operation to 286 K; negative electroluminescence of InAs/GaSb superlattice detector.
1993–1997	Research Assistant	Duke University, Dept. of Physics Optical and electronic studies of GaAs/Al <sub>x</sub> Ga <sub>1-x</sub> As heterostructures, constructed low-temperature photoluminescence measurement system; Molecular Beam Epitaxy growth of GaAs/Al <sub>x</sub> Ga <sub>1-x</sub> As, In(Al,Ga)As heterostructures; sample processing, including photolithography, evaporation, annealing; wirebonding and current-voltage characterization.
1990	Laboratory Assistant	AT&T Bell Laboratories Summer Research Program Integer Quantum Hall Effect studies; high magnetic field, low temperature measurements; Hall bar design and processing: electron beam lithography, photolithography, annealing, contacting.
Summer 1989	Laboratory Assistant	Princeton University, Dept. of Physics Cosmic microwave background studies; designed and fabricated chopping mirror used in cosmic microwave background measurements in Antarctica (Viper, Python).

**Teaching Experience:**

- 2015–present Associate Professor Baylor University, Dept. of Electrical & Computer Engineering  
Introduction to Engineering (EGR 1301)—Fall 2015, Fall 2016, Fall 2022, Fall 2023  
Electrical Circuit Theory (ELC 2330)—Spring 2016, Spring 2017, Spring 2018, Spring 2019, Spring 2023  
Circuit Theory for Non-ECE (ELC 2320)—Fall 2017, Fall 2018  
Solid-State Materials/Solid State Physics (ELC 4323/PHY 4372)—Spring 2017, Spring 2018, Fall 2019, Spring 2021, Fall 2022  
Semiconductor Devices (ELC 4324/5396)—Fall 2016, Fall 2017, Spring 2019, Fall 2020, Spring 2022  
Fundamentals of Lasers (ELC 4325/5396)—Fall 2018, Spring 2020, Fall 2021, Fall 2023  
Master’s Thesis (ELC 5V99)—Spring 2018, Summer 2018, Spring 2019, Summer 2019, Spring 2021, Summer 2021  
Engineering Analysis (ELC 5302/ME 5302)—Spring 2022, Spring 2024  
Dissertation Proposal (ELC 5397)—Fall 2021  
Doctoral Prospectus Research (ELC 6V10)—Fall 2019, Spring 2020, Summer 2020, Fall 2020  
Dissertation (ELC 6V99)—Spring 2021, Summer 2021, Fall 2021, Spring 2022, Summer 2022, Fall 2022, Spring 2023, Summer 2023, Fall 2023, Spring 2024
- 2006–2014 Associate Professor Baylor University, Dept. of Physics  
General Physics I Honors (Physics 1420H)—Fall 2007, 2008, 2011  
General Physics I-A (Physics 1422)—Fall 2006, Spring 2007  
Special Research Problems (Physics 1V95)—Spring 2007, Fall 2009, Fall 2010  
Special Research Problems (Physics 3V95)—Fall 2013, Spring 2014  
Solid State Physics (Physics 4372)—Spring 2008–2014 (each Spring semester)  
Graduate Physics Colloquium (Physics 5180)—Fall 2007–Spring 2009, Fall 2011–Spring 2013 (8 semesters)  
Graduate Solid State Physics (Physics 5342)—Fall 2010, Fall 2012  
Graduate Quantum Mechanics I (Physics 5370)—Fall 2013  
Graduate Research (Physics 5V95)—Fall 2007–Summer 2009, Summer 2011, Fall 2011  
Dissertation (Physics 6V99)—Summer 2008–Spring 2009, Spring 2012–Spring 2013
- 2005–2006 Associate Professor University of Kansas, Dept. of Physics & Astronomy
- 1999–2005 Assistant Professor University of Kansas, Dept. of Physics & Astronomy  
Quantum Mechanics I (Physics 711)  
First semester graduate level—Fall 2002, Fall 2003, Fall 2004, Fall 2005  
Solid State Physics Seminar (Physics 987)—Fall 2004  
Introduction to Solid State Physics (Physics 681)  
Upper level undergraduate—Spring 2003  
Solid State Physics II (Physics 881)  
Second graduate level course in solid state physics—Spring 2004  
Optics and Modern Physics (Physics 313/351)  
Sophomore level course for engineering students and physics majors—Fall 1999, Spring 2000, Fall 2000, Spring 2001, Fall 2001, Spring 2002  
General Physics I (Physics 211)—Spring 2006



Materials Research Society Policy Outreach Working Group (2021–present)  
Materials Research Society Government Affairs Committee (2011–present), Chair (2024–2026), Vice-Chair (2023–present), Leadership (2012–2016, 2023–present)  
*MRS Bulletin* Book Review Committee, Chair (2009–present), Member (2003–present)  
*MRS Bulletin* Editorial Board (2009–present)  
Materials Research Society Symposium Organizer  
*Progress in Semiconductor Materials V: Electronic and Optoelectronic Applications* (Fall 2005)  
Session Chair, International Conference on Quantum Engineered Sensing and Information Technology (2023), March Meeting of the American Physical Society (2011), Materials Research Society Fall Meeting (1999)  
Graduate Record Exam in Physics, Committee of Examiners (2010–2020), Chair (2016–2020)  
Problem author, Educational Testing Service Physics GRE and Texas Teacher Certification exams  
Referee, *Applied Physics Letters*, *IEEE Journal of Quantum Electronics*, *IEEE Photonics Technology Letters*, *IEEE Journal of Selected Topics in Quantum Electronics*, *Journal of Applied Physics*, *Journal of Vacuum Science and Technology B*, *American Journal of Physics*, *AIP Conference Proceedings*, *MRS Proceedings*, *Applied Sciences*  
Textbook review, *Addison Wesley*, *Pearson Education*, *W. H. Freeman*  
Proposal Review, *U.S. Army Research Office*, *Kansas NSF EPSCoR*, *Kansas Technology Enterprise Corporation*, *National Science Foundation*, *U. S. Civilian Research & Development Foundation*, *National Defense Science and Engineering Graduate Program*

#### Local

Judge, Science Fairs (Central Texas Science and Engineering Fair, First Woodway Christian School, Live Oak Classical School) (2007–present)  
Parent Council, Science Fair co-Chair, Live Oak Classical School (2010–present)  
Member of the Laser Electro-Optics Technology and Nanotechnology Advisory Committee (Texas State Technical College, Waco, TX) (2009–2019)

#### Department/University

*(Baylor University)*

Graduate Studies Committee, Electrical and Computer Engineering (2015–present)  
Faculty Search Committee, Electrical and Computer Engineering (2017–present), Chair (2022–present)  
Commencement Committee (2020–present)  
Diversity, Equity, Inclusion, and Belonging Committee, Engineering and Computer Science (2021–present)  
Cople Chair Search Committee, School of Education (Spring 2019)  
Faculty Advisor/Reviewer for *Scientia* (2016–2023)  
Graduate Studies Committee, Physics (2006–2014)  
Chemical Physics Committee (2006–2014, Chair 2013–2014)  
Preliminary Exam Committee (2007–2009, Chair 2008–2009)  
Faculty Partner, Community Living and Learning (2007–2011)  
Outstanding Faculty Nomination Committee (2011–2013)  
Laser Safety Committee (2007–present)  
Graduation marshal/lead marshal (2007–present)

*(University of Kansas, Department of Physics and Astronomy)*

Environment, Health & Safety Council, Laser Safety Subcommittee, Chair (2005–2006)  
Engineering Physics Committee (2005–2006)  
Evaluation Committee (2004–2006)  
Nanofabrication Steering Committee (2004–2006)

Computer Committee (2004–2005)  
Search Committee for Faculty position in Condensed Matter Theory (2004–2005)  
Undergraduate Advising (2002–2006)  
Graduate Committee (1999–2004)  
Graduate Recruitment Committee (2001–2004)  
Instructional Laboratories Committee (2000–2001)

*(Duke University, Department of Physics)*  
Library Committee (1993–1994)

### **Synergistic Activities:**

- Selected as a Fellow of the Summer Faculty Institute at Baylor University (Summer 2019)
- Taught physics (4<sup>th</sup> grade), chemistry (5<sup>th</sup> grade) and life science (6<sup>th</sup> grade) to grammar students at Live Oak Classical School, Waco, TX (2014–2015)
- Visiting Waco schools with support from SPIE to present history and applications of the laser in celebration of the 50<sup>th</sup> anniversary of the laser; distributing optics discovery kits and laser pointers
- Participated in Congressional Visits Day representing the Materials Research Society (sponsored by the Science-Engineering-Technology Workgroup) to address need for increased and balanced federal investment in research and development (20 in-person visits May 2007–April 2019, May 2023; virtual visit 2021)
- Participated in Best Practices Institute (May 2004) sponsored by the University of Kansas Center for Teaching Excellence—developed plan for Quantum Mechanics course revision for Fall 2004; poster presentation of previous strategy to enhance student learning and engagement:
- Hosted Professor Carlos Stroud through the Distinguished Traveling Lecturer Series of the Division of Laser Science of the American Physical Society, organizing a colloquium, public lecture on “Quantum Weirdness,” and lunch with undergraduate students to learn about careers in optics and quantum mechanics (Baylor University, Spring 2011; University of Kansas, Fall 2002)
- Hosted Duke University Physics Professor John Thomas (2010) and Rice University Chemistry Professor James Tour (2013) with support of Baylor University Distinguished Lecturer program for department colloquia and public lectures
- Supervised undergraduate Honors theses completed by Ian (Eaves) Reeves (Physics major, 2011) and Windrik Lynch (University Scholar, 2008) and undergraduate engineering design projects completed by Engineering Physics majors Andrew Giebler and Armando Noriega to develop computerized control of a polarization filter
- Presented introductory talks on semiconductors to high school and junior high school students at the Junior Science and Humanities Symposium and the Talent Identification Program
- Submitted poster presentations (2010, 2012, 2013) and journal articles (Spring 2019, Fall 2020) to Creations exhibit to support the Baylor vision to “produce research and creative work at the highest levels” and to celebrate academic accomplishments.
- Active participant in Women’s Faculty Writing Group providing community as female Associate Professors progress toward promotion to Full Professor

### **Supervision and Mentoring**

#### ***Postdoctoral scholars***

#### ***At Baylor University***

Dr. Fatih Uzgur, October 2022–present

***Graduate students***

*At Baylor University:*

Daniella (Sugijanto) DeVries, Ph.D. student, August 2019–present  
Passed Ph.D. preliminary examinations (written and oral), Spring 2021

Kyler Stephens, M.S., August 2021: “Study of Pumping Conditions on Output of Optically Pumped Interband Cascade Lasers”  
Assembly Test and Launch Operation Engineer, Millennium Space Systems, El Segundo, CA

Nazifa Rumman, M.S., August 2019: “Characterization of Optically Pumped Interband Cascade Lasers”  
Ph.D. student, Rensselaer Polytechnic Institute, Troy, New York

Jeremy Kunz, Ph.D. candidate; selected new research area and completed Ph.D. in 2017  
Passed Physics written preliminary examination in 2011 and trained in laboratory techniques and reading relevant literature. Completed training for semiconductor processing/fabrication at the Microelectronics Research Center facility at the University of Texas at Austin (Spring 2012).

Angela Douglass, Ph.D. candidate; selected new research area and completed Ph.D. in 2012

Alex Price, Master’s candidate; selected new research area and completed M.S. in 2011

*At the University of Kansas:*

Katherine R. Greene, M.S., May 2004: “A Comparative Study of Electrically Pumped and Optically Pumped Mid-Infrared Light Emitting Diodes”  
Freelance science and technology journalist

Todd C. McAlpine, Ph.D., August 2006: “Cavity Length Study of a Resonantly Pumped W-OPIC Semiconductor Laser”  
M.S., December 2003: “Measuring the Impulse Response of a Photoconductive HgCdTe Detector for Pulsed Semiconductor Laser Applications”  
Lecturer in Physics and Mathematics at Ohio Northern University, Ada, Ohio

Michael R. Santilli, Ph.D., December 2006: “Cavity length study of an electrically pumped W-well Laser”  
M.S. June 2004: “Device Fabrication and Characterization for Infrared Detection of Glucose”  
Vice President Global Marketing at Carl Zeiss Microscopy, Jena, Thuringia, Germany

Delora C. Tanner, Graduate Research Assistant, Summer 2002  
Senior Systems Engineer, Raytheon, Vail, Arizona

Kristina G. Young-Fisher, M.S., Summer 2006: “Resonant Pump Wavelength Variation in an Optical Pumping Injection Cavity Laser”  
Technical Program Manager, Packaging Development, GlobalFoundries, Albany, New York

***Undergraduate students***

*At Baylor University:*

Maxwell Salter (Biomedical Engineering), Baylor University, Fall 2021–present  
Caleb Chakmakjian (Mechanical Engineering), Baylor University, Summer 2022  
Aaron Mendoza (Electrical and Computer Engineering), Baylor University, Fall 2021

John Lewis (Electrical and Computer Engineering), Baylor University, Summer 2021  
Grayson Smith (Electrical and Computer Engineering), Baylor University, Fall 2020  
Ryan Rogers (Electrical and Computer Engineering), Baylor University, Summer 2019  
Benjamin Jones (Mechanical Engineering), Baylor University, Summer 2017–Summer 2018  
Logan Sparks (Electrical and Computer Engineering), Baylor University, Summer 2018  
Taylor Hetrick (Electrical and Computer Engineering), Baylor University, Fall 2017–Spring 2018  
Michael Glasgow (Electrical and Computer Engineering), Baylor University, Summer 2017  
Joshua Miller (Electrical and Computer Engineering), Baylor University, Summer 2017  
Dillon Todd (Electrical and Computer Engineering), Baylor University, Summer 2017  
Michael Hu (Electrical and Computer Engineering), Baylor University, Spring 2016–Summer 2016  
Jones Reed (Electrical and Computer Engineering), Baylor University, Summer 2016  
Rui Zhang (Electrical and Computer Engineering), Baylor University, Summer 2016  
Sara Tupponce (Mechanical Engineering), Baylor University, Fall 2015–Spring 2016  
Sean O’Connor (Physics), Baylor University, NSF EAGER REU supplement, Summer 2013–Spring 2015  
Charles Jester (University Scholars/Mathematics), Baylor University, NSF EAGER REU supplement, Summer 2013  
Ian (Eaves) Reeves (Physics), Baylor University, Summer 2009–Spring 2011  
    Undergraduate Research and Scholarly Activity award (Summer 2009), SURPh (2010)  
    Physics 1V95 Special Research Problems (Fall 2009, Fall 2010)  
    Honors thesis: “Computational Mid-infrared Beam Analysis”  
Lauren Bain, Baylor University REU program, Summer 2010  
Ben Ball, Baylor University REU program, Summer 2010  
Nethmi Ariyasinghe, Baylor University REU program, Summer 2009  
Lauren Ice, Baylor University REU program, Summer 2009  
Windrik Lynch (University Scholars), Baylor University, Spring 2007–Spring 2008  
    Physics 1V95 Special Research Problems (Spring 2007, 2008)  
    University Scholar thesis: “Laser Beam Profiling from an Electrically Stimulated W-Well Semiconductor”

At the University of Kansas:

Andrew Giebler, Physics 601 Electromechanical Design project, Physics major (KU)  
Armando Noriega, Physics 601 Electromechanical design project, Engineering Physics major (KU)

**Research Experience for Teachers (RET) program**

Dr. Daniel Mixson (Naval Academy Preparatory School), Summer 2007

**Patents and Commercialization**

1. **L. J. Olafsen** K. E. Schubert, J. S. Olafsen, J. H. Huang, and S. Dayawansa (inventors), “Ultrasound Locatable Surgical Guidewire System and Method,” United States Patent Application 17/323,070. Filed: 2021 May 18. Notice of Allowance: 2023 September 21.
2. K. E. Schubert, **L. J. Olafsen**, J. S. Olafsen, S. Lee, J. H. Huang, S. Dayawansa, and J. W. Choi (inventors), “Programmable Medical Wire System and Method,” United States Patent Application 16/269,689. 2019 February 07.
3. Programmable Surgical Wire technology was evaluated by the Duke FastTrack Medical Device Translator program to assess market value and prototype in order to progress to FDA approval and commercialization (Spring 2021).

**Refereed Publications (48: 29 journal articles, 2 book chapters, 1 edited volume, 16 conference proceedings) (\*undergraduate authors underlined)**

1. D. R. DeVries, **L. J. Olafsen**, J. S. Olafsen, H. H. Nguyen, K. E. Schubert, S. Dayawansa, and J. H. Huang, “Ultrasound Localization of Nitinol Wire of Sub-Wavelength Dimension,” *IEEE Open Journal of Engineering in Medicine and Biology* **3**, 18–24 (2022).  
<https://doi.org/10.1109/OJEMB.2022.3151230>
2. **L. J. Olafsen**, K. A. Stephens, and D. R. DeVries, “Optical pumping and electrical injection of a 3.6  $\mu\text{m}$  interband cascade laser,” *IEEE Journal of Quantum Electronics* **58**(2), 2000408 (2022). <https://doi.org/10.1109/JQE.2022.3146864>
3. **L. J. Olafsen**, K. A. Stephens, and D. R. Sugijanto, “Optically Pumped Interband Cascade Laser with Graphene Contact,” *Universal Journal of Lasers, Optics, Photonics, and Sensors*, **1**(3), 72–79 (2021).
4. **L. J. Olafsen** and N. Rumman, “Optically Pumped Mid-Infrared Interband Cascade Lasers,” *2020 IEEE Texas Symposium on Wireless and Microwave Circuits and Systems (WMCS)*, Waco, TX, USA, 2020, pp. 1-4. <https://doi.org/10.1109/WMCS49442.2020.9172402>
5. **L. J. Olafsen** and J. S. Olafsen, “Multi-wavelength beam profile measurement of near-infrared pulses for optical pumping,” *Infrared Physics and Technology* **105**, 103228 (2020).  
<https://doi.org/10.1016/j.infrared.2020.103228>
6. **L. J. Olafsen**, B. Jones, L. Sparks, H. H. Nguyen, A. Tanner, K. E. Schubert, J. S. Olafsen, S. Dayawansa, E. Fonkem, and J. H. Huang, “Current-controlled Nitinol wire for improved arterial navigation,” *Proceedings of the SPIE* **10868**, 108681E (2019).  
<https://doi.org/10.1117/12.2511670>
7. **L. J. Olafsen**, J. S. Olafsen, and I. K. Eaves, “Time-dependent spatial intensity profiles of near-infrared idler pulses from nanosecond optical parametric oscillators,” *Applied Physics B* **124**, 110 (2018). <https://doi.org/10.1007/s00340-018-6975-0>
8. John Miller and **Linda Olafsen**, “Miniature Wind Turbine Student Design Project,” *Proceedings of the 2016 ASEE Gulf-Southwest Annual Conference*, 165 (2016).
9. **L. J. Olafsen**, “Tunable Optical Pumping Technique for the Development of Mid-Infrared Semiconductor Lasers,” Chapter 11, *New Developments in Photon and Materials Research*, edited by J. I. Jang, Nova Science Publishers (2013). [BOOK CHAPTER]
10. **L. J. Olafsen**, J. Kunz, A. P. Ongstad, and R. Kaspi, “Tunable excitation of mid-infrared optically pumped semiconductor lasers,” *Proceedings of the SPIE* **8631**, 86312N (2013).  
<https://doi.org/10.1117/12.2008808>
11. **L. J. Olafsen**, L. D. Ice, and B. Ball, “Nonlinear Temperature Dependence of Resonant Pump Wavelengths in Optical Pumping Injection Cavity Lasers,” *IEEE Journal of Selected Topics in Quantum Electronics* **17**, 1453–1459 (2011).  
<https://doi.org/10.1109/JSTQE.2011.2151177>

12. **L. J. Olafsen**, **I. K. Eaves**, and J. S. Olafsen, “Synchronized Mid-infrared Beam Characterization of Narrow Gap Semiconductors,” *AIP Conference Proceedings* **1416**, 88–90 (2011). <https://doi.org/10.1063/1.3671705>
13. **L. J. Olafsen**, **L. E. Bain**, W. W. Bewley, I. Vurgaftman, J. R. Meyer, H. Lee, and R. U. Martinelli, “Room-temperature 4.0- $\mu\text{m}$  broadened optical pumping injection cavity lasers,” *Proceedings of the SPIE* **7953**, 795314 (2011). <https://doi.org/10.1117/12.875218>
14. **L. J. Olafsen** and T. C. McAlpine, “Transparency pump intensity and differential gain in resonantly pumped W optical pumping injection cavity lasers,” *Journal of Applied Physics* **108**, 053106 (2010). <https://doi.org/10.1063/1.3475504>
15. *Progress in Semiconductor Materials V – Novel Materials and Electronic and Optoelectronic Applications*, edited by **Linda J. Olafsen**, Robert M. Biefeld, Michael C. Wanke, Adam W. Saxler (*Materials Research Society Symposium Proceedings* **891**, Warrendale, PA, 2006). [EDITED VOLUME]
16. J. P. Prineas, J. R. Yager, J. T. Olesberg, S. Seydmohamadi, C. Cao, M. Reddy, C. Coresopoulos, J. L. Hicks, T. F. Boggess, M. Santilli, and **L. J. Olafsen**, “PIN versus PN homojunctions in GaInAsSb 2.0–2.5 micron mesa photodiodes,” *Proceedings of the SPIE* **6119**, 611903 (2006). <https://doi.org/10.1117/12.647109>
17. J. T. Olesberg, C. Cao, J. R. Yager, J. P. Prineas, C. Coresopoulos, M. A. Arnold, **L. J. Olafsen**, and M. Santilli, “Optical microsensor for continuous glucose measurements in interstitial fluid,” *Proceedings of the SPIE* **6094**, 609403 (2006). <https://doi.org/10.1117/12.646751>
18. J. P. Prineas, M. Reddy, J. T. Olesberg, C. Cao, S. Veerasamy, M. E. Flatté, E. Koerperick, T. F. Boggess, M. R. Santilli, and **L. J. Olafsen**, “Quaternary GaInAsSb 2.0-2.5 micron back-illuminated focal plane array for blood glucose monitoring,” *Proceedings of the SPIE, Semiconductor Photodetectors II*, **5726**, 113–121 (2005). <https://doi.org/10.1117/12.590820>
19. T. C. McAlpine, K. R. Greene, M. R. Santilli, **L. J. Olafsen**, W. W. Bewley, C. L. Felix, I. Vurgaftman, J. R. Meyer, M. J. Yang, H. Lee, and R. U. Martinelli, “Resonantly pumped optical pumping injection cavity lasers,” *Journal of Applied Physics* **96**, 4751 (2004). <https://doi.org/10.1063/1.1801164>
20. **L. J. Olafsen**, I. Vurgaftman, and J. R. Meyer, “Antimonide Mid-IR Lasers,” for Long-wavelength Infrared Semiconductor Lasers, ed. H. K. Choi (John Wiley, New York, 2004). [BOOK CHAPTER]
21. T. C. McAlpine, K. R. Greene, M. R. Santilli, **L. J. Olafsen**, W. W. Bewley, C. L. Felix, I. Vurgaftman, J. R. Meyer, M. J. Yang, H. Lee, and R. U. Martinelli, “Pump Wavelength Tuning of Optical Pumping Injection Cavity Lasers for Enhancing Mid-Infrared Operation,” *Materials Research Society Symposia Proceedings* **799**, 211–216 (2004). <https://doi.org/10.1557/PROC-799-Z4.7>
22. S. Cho, Y. Kim, **L. J. Olafsen**, I. Vurgaftman, A. J. Freeman, G. K. L. Wong, J. R. Meyer, C. A. Hoffman, and J. B. Ketterson, “Large magnetoresistance in post-annealed polycrystalline

- and epitaxial Bi thin films,” *Journal of Magnetism and Magnetic Materials* **239**, 201 (2002). [https://doi.org/10.1016/S0304-8853\(01\)00557-1](https://doi.org/10.1016/S0304-8853(01)00557-1)
23. S. Cho, Y. Kim, S. J. Youn, A. DiVenere, G. K. L. Wong, A. J. Freeman, J. B. Ketterson, **L. J. Olafsen**, I. Vurgaftman, J. R. Meyer, and C. A. Hoffman, “Artificially ordered Bi/Sb superlattice alloys: Fabrication and transport properties,” *Physical Review B* **64**, 235330 (2001). <https://doi.org/10.1103/PhysRevB.64.235330>
  24. S. Cho, Y. Kim, A. J. Freeman, G. K. L. Wong, J. B. Ketterson, **L. J. Olafsen**, I. Vurgaftman, J. R. Meyer, and C. A. Hoffman, “Large magnetoresistance in postannealed Bi thin films,” *Applied Physics Letters* **79**, 3651–3653 (2001). <https://doi.org/10.1063/1.1416157>
  25. **L. J. Olafsen**, T. Daniels-Race, R. E. Kendall, and S. W. Teitsworth, “Photoluminescence of *n-i-n* single quantum well structures under electric field bias,” *Superlattices and Microstructures* **27**(1), 39–51 (2000). <https://doi.org/10.1006/spmi.1999.0818>
  26. S. Cho, Y. Kim, A. DiVenere, G. K. L. Wong, A. J. Freeman, J. B. Ketterson, **L. J. Olafsen**, I. Vurgaftman, J. R. Meyer, C. A. Hoffman, and G. Chen, “Artificially Atomic-scale Ordered Superlattice Alloys for Thermoelectric Applications,” *Materials Research Society Symposia Proceedings* **626**, Z2.4.1–Z2.4.6 (2000). <https://doi.org/10.1557/PROC-626-Z2.4>
  27. **L. J. Olafsen**, W. W. Bewley, I. Vurgaftman, C. L. Felix, E. H. Aifer, D. W. Stokes, J. R. Meyer, H. Lee, R. J. Menna, R. U. Martinelli, D. Z. Garbuzov, M. Maiorov, J. C. Connolly, A. R. Sugg, and G. H. Olsen, “High Temperature W Diode Lasers Emitting at 3.3  $\mu\text{m}$ ,” *Materials Research Society Symposia Proceedings* **607**, 95–100 (2000). <https://doi.org/10.1557/PROC-607-95>
  28. J. R. Meyer, W. W. Bewley, I. Vurgaftman, C. L. Felix, **L. J. Olafsen**, E. H. Aifer, D. W. Stokes, M. J. Yang, H. Lee, R. J. Menna, R. U. Martinelli, D. Z. Garbuzov, J. C. Connolly, M. Maiorov, A. R. Sugg, and G. H. Olsen, “Type-II Mid-Infrared Lasers,” *Proceedings of the SPIE* **3947**, 100–109 (2000). <https://doi.org/10.1117/12.382087>
  29. C. L. Felix, W. W. Bewley, I. Vurgaftman, **L. J. Olafsen**, D. W. Stokes, J. R. Meyer, and M. J. Yang, “High-Efficiency Mid-IR ‘W’ Laser with Optical Pumping Injection Cavity (OPIC),” *Applied Physics Letters* **75**, 2876–2878 (1999). <https://doi.org/10.1063/1.125176>
  30. D. W. Stokes, **L. J. Olafsen**, W. W. Bewley, I. Vurgaftman, C. L. Felix, E. H. Aifer, J. R. Meyer, and M. J. Yang, “Type-II ‘W’ Lasers Emitting at  $\lambda = 5.4\text{--}7.3 \mu\text{m}$ ,” *Journal of Applied Physics* **86**, 4729–4733 (1999). <https://doi.org/10.1063/1.371436>
  31. C. L. Felix, W. W. Bewley, **L. J. Olafsen**, D. W. Stokes, E. H. Aifer, I. Vurgaftman, J. R. Meyer, and M. J. Yang, “Continuous-Wave Type-II ‘W’ Lasers Emitting at  $\lambda = 5.4\text{--}7.1 \mu\text{m}$ ,” *IEEE Photonics Technology Letters* **11**, 964–966 (1999). <https://doi.org/10.1109/68.775314>
  32. W. W. Bewley, C. L. Felix, E. H. Aifer, D. W. Stokes, I. Vurgaftman, **L. J. Olafsen**, J. R. Meyer, M. J. Yang, and H. Lee, “Thermal Characterization of Diamond-Pressure-Bond Heat Sinking for Optically Pumped Mid-Infrared Lasers,” *IEEE Journal of Quantum Electronics* **35**, 1597–1601 (1999). <https://doi.org/10.1109/3.798081>

33. H. Lee, **L. J. Olafsen**, R. J. Menna, W. W. Bewley, R. U. Martinelli, I. Vurgaftman, D. Z. Garbuzov, C. L. Felix, M. Maiorov, J. R. Meyer, J. C. Connolly, A. R. Sugg, and G. H. Olsen, "Pulsed operation to 300 K of  $\lambda = 3.30 \mu\text{m}$  type-II W quantum well diode laser with broadened waveguide," *Electronics Letters* **35**, 1743–1745 (1999).  
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37. W. W. Bewley, C. L. Felix, I. Vurgaftman, **L. J. Olafsen**, E. H. Aifer, and J. R. Meyer, "Addendum: 'Midinfrared vertical-cavity surface-emitting laser' [Appl. Phys. Lett. **71**, 3483 (1997)]," *Applied Physics Letters* **74**, 625–627 (1999). <https://doi.org/10.1063/1.123185>
38. C. L. Felix, W. W. Bewley, E. H. Aifer, I. Vurgaftman, **L. J. Olafsen**, D. W. Stokes, J. R. Meyer, M. J. Yang, H. Lee, R. U. Martinelli, and J. C. Connolly, "Optically-Pumped Mid-Infrared Type-II Lasers: Advances in High Temperature Performance," *Proceedings of the SPIE, In-Plane Semiconductor Lasers III*, **3628**, 130–139 (1999).  
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39. W. W. Bewley, C. L. Felix, E. H. Aifer, I. Vurgaftman, **L. J. Olafsen**, J. R. Meyer, H. Lee, R. U. Martinelli, J. C. Connolly, A. R. Sugg, G. H. Olsen, M. J. Yang, B. R. Bennett, and B. V. Shanabrook, "Above-Room-Temperature Optically-Pumped Mid-Infrared W-lasers," *Applied Physics Letters* **73**, 3833–3835 (1998). <https://doi.org/10.1063/1.122909>
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41. J. R. Meyer, **L. J. Olafsen**, E. H. Aifer, W. W. Bewley, C. L. Felix, I. Vurgaftman, M. J. Yang, L. Goldberg, D. Zhang, C.-H. Lin, S. S. Pei, and D. H. Chow, "Type-II W, Interband Cascade, and Vertical-Cavity Surface-Emitting Mid-IR Lasers," *IEE Proceedings–Optoelectronics* **145**, 275–280 (1998). <https://doi.org/10.1049/ip-opt:19982304>
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43. **L. J. Olafsen**, E. H. Aifer, I. Vurgaftman, W. W. Bewley, C. L. Felix, J. R. Meyer, D. Zhang, C.-H. Lin, and S. S. Pei, “Near-Room-Temperature Mid-IR Interband Cascade Laser,” *Applied Physics Letters* **72**, 2370–2372 (1998). <https://doi.org/10.1063/1.121359>
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  45. **L. J. Blue**, T. Daniels-Race, R. Kendall, C. R. Schmid, and S. W. Teitsworth, “Dependence of I-V Characteristics on Al Mole Fraction in GaAs/Al<sub>x</sub>Ga<sub>1-x</sub>As Asymmetric Double Barrier Structures,” *Journal of Vacuum Science and Technology* **B15**, 696–701 (1997).  
<https://doi.org/10.1116/1.589371>
  46. **L. J. Blue**, T. Daniels-Race, C. N. Yeh, and L. E. McNeil, “Effect of well width variation on type-I/type-II photoluminescence in GaAs/AlAs single quantum wells,” *Superlattices and Microstructures* **21**, 187–193 (1997). <https://doi.org/10.1006/spmi.1995.0162>
  47. C. N. Yeh, L. E. McNeil, T. Daniels-Race, and **L. J. Blue**, “Photoluminescence measurements of tensile strained GaAs/In<sub>0.07</sub>Al<sub>0.93</sub>As quantum wells,” *Journal of Applied Physics* **79**, 3192-3195 (1996). <https://doi.org/10.1063/1.361263>
  48. C. N. Yeh, L. E. McNeil, **L. J. Blue**, and T. Daniels-Race, “Measurement of the GaAs/AlAs valence-band offset from a single quantum well near the  $\Gamma$ -X crossover,” *Journal of Applied Physics* **77**, 4541–4543 (1995). <https://doi.org/10.1063/1.359415>

### Non-refereed Publications (9)

1. S. Dayawansa, E. A. Benardete, P. T. Noonan, **L. J. Olafsen**, J. S. Olafsen, K. E. Schubert, and J. H. Huang, “Optimum wide neck bifurcation aneurysm angle change (BSW index) promotes better coiling of the aneurysm,” 2018 American Association of Neurological Surgeons Annual Scientific Meeting.
2. **L. J. Olafsen**, “The Dual-Career ‘Problem’,” *Blazing the Trail: Essays by Leading Women in Science*, edited by Emma Ideal and Rhiannon Meharchand (CreateSpace Independent Publishing Platform, 2013).
3. **L. J. Olafsen**, T. C. McAlpine, K. R. Greene, M. R. Santilli, W. W. Bewley, C. L. Felix, I. Vurgaftman, J. R. Meyer, M. J. Yang, H. Lee, and R. U. Martinelli, “Optical Pumping Injection Cavity Lasers Toward High Power Conversion Efficiency at Room Temperature,” *17<sup>th</sup> Annual Solid State and Diode Laser Technology Review* (Technical Digest, paper MIR-6, 2004).
4. J. R. Meyer, W. W. Bewley, I. Vurgaftman, C. L. Felix, **L. J. Olafsen**, D. W. Stokes, M. J. Yang, H. Lee, R. J. Menna, R. U. Martinelli, D. Z. Garbuzov, J. C. Connolly, M. Maiorov, A. R. Sugg, G. H. Olsen, Conference on Lasers and Electro-Optics (7–12 May, 2000, San

- Francisco, CA), “Optically- and electrically-pumped type-II ‘W’ quantum-well lasers for the mid-IR,” pp. 62–63.
5. W. W. Bewley, **L. J. Olafsen**, I. Vurgaftman, C. L. Felix, E. H. Aifer, D. W. Stokes, J. R. Meyer, M. J. Yang, H. Lee, R. J. Menna, R. U. Martinelli, D. Z. Garbuzov, J. C. Connolly, M. Maiorov, A. R. Sugg, and G. H. Olsen, “High-Temperature Diode and Optically-Pumped Mid-IR Lasers with Type-II “W” Quantum Wells,” *Optics and Photonics News: Optics in 1999* (December, 1999), p. 18.
  6. S. Cho, Y. Kim, A. DiVenere, G. K. L. Wong, A. J. Freeman, J. B. Ketterson, **L. J. Olafsen**, I. Vurgaftman, J. R. Meyer, and C. A. Hoffman, “Artificially Ordered BiSb Alloys: Growth and Transport Properties,” *Proc. 18<sup>th</sup> Int. Conf. Thermoelectrics* (29 August – 2 September, 1999, Baltimore, MD).
  7. C. L. Felix, W. W. Bewley, I. Vurgaftman, **L. J. Olafsen**, D. W. Stokes, J. R. Meyer, M. J. Yang, H. Lee, and R. U. Martinelli, '99 IEEE-LEOS Annual Meeting (8-11 November, 1999, San Francisco, CA), “Optical Pumping Injection Cavity (OPIC) for High-Efficiency Mid-IR W Lasers,” pp. 603-604.
  8. J. R. Meyer, I. Vurgaftman, **L. J. Olafsen**, E. H. Aifer, W. W. Bewley, C. L. Felix, C.-H. Lin, D. Zhang, R. Q. Yang, S.-S. Pei, K. Vodopyanov, K. O'Neill, C. C. Phillips, and M. Hopkinson, “Phase-Matched Second-Harmonic and Cascade Laser Mid-IR Sources,” in *Intersubband Transitions in Quantum Wells: Physics and Devices*, ed. S. S. Li and Y.-K. Su (Kluwer, Boston, 1998).
  9. I. Vurgaftman, **L. J. Olafsen**, E. H. Aifer, W. W. Bewley, C. L. Felix, J. R. Meyer, C.-H. Lin, D. Zhang, S. J. Murry, and S.-S. Pei, Conference on Lasers and Electro-Optics (3–8 May, 1998, San Francisco, CA), “Interband Cascade and Type-II Superlattice Mid-Infrared Lasers,” p. 337–338.

### Book Reviews

1. **L. J. Olafsen**, “Review of Quantum Mechanics for Nanostructures,” *MRS Bulletin*, **37**(5), 531 (2012).
2. **L. J. Olafsen**, “Review of Introduction to the Electronic Properties of Materials, 2<sup>nd</sup> Ed.,” *MRS Bulletin*, **28**(11), 867 (2003).
3. **L. J. Olafsen**, “Review of Mesoscopic Systems: Fundamentals and Applications,” *MRS Bulletin*, **28**(4), 323 (2003).

### In preparation

1. **L. J. Olafsen** and D. R. DeVries, “Evidence of quasi-Fermi level pinning in interband cascade lasers,” in preparation for submission to *IEEE Journal of Quantum Electronics*.
2. D. DeVries, M. Salter, **L. J. Olafsen**, J. S. Olafsen, H. H. Nguyen, K. E. Schubert, S. Dayawansa, and J. H. Huang, “Infrared Scattering in Gelatin Tissue Phantom,” in preparation.

3. H. Aghajani, H. Nguyen, J. Bengel, R. L. Barbour, **L. J. Olafsen**, K. Schubert, and D. C. Lee, “High-Density Intraoperative Neuromonitoring and Post-Cardiac Surgery Dysfunction,” in preparation for submission to *Journal of Cardiac Surgery*.
4. J. S. Olafsen and **L. J. Olafsen**, “Spatiotemporal beam profiling in the mid-infrared,” in preparation for submission to *Physical Review E*.
5. **L. J. Olafsen**, R. Zhang, Z. Yan, Z. Peng, and J. M. Tour, “Infrared optical conductivity and transmissivity of graphene,” in preparation for submission to *Physical Review B*.

**Funding (External: \$0.65M at Baylor, \$1.95M Total)**

9/30/22–9/29/23	U. S. Army Engineer Research and Development Center “Near-Surface Phenomenology Using Ultrasound and Spatiotemporal Beam Profiling in the Infrared” PI: Linda Olafsen; co-I: Jeffrey Olafsen	<b>\$150,000</b>
6/1/22–5/31/25	Baylor University Postdoctoral Hiring Program PI: Linda Olafsen (single investigator)	\$189,468
9/1/21–8/31/24	National Science Foundation “Reduction of Droop for Antimonide-based Mid-Infrared Lasers” PI: Linda Olafsen (single investigator)	<b>\$359,607</b>
6/1/21–5/31/22	University Research Council, Baylor University “Preliminary Investigations Toward Developing a Deeply Implantable Wireless Monitoring System for Fast-Growing Cancers” PI: Linda Olafsen; co-Is: Vincent Leung, Keith Schubert	\$30,000
6/1/16–5/31/17	University Research Council, Baylor University “Electrical and Thermal Conductivity of Graphene Contacts” PI: Linda Olafsen (single investigator)	\$7,500
3/15/13–2/28/17	National Science Foundation “EAGER: Enhanced Optoelectronic Devices Through Integration of Single-Crystal Graphene and Bernal Bilayer and Trilayer Graphene” PI: Linda Olafsen; co-I: James Tour, Rice University	<b>\$120,129</b>
	REU supplement	<b>\$6,000</b>
7/1/13–8/31/13	Laboratory Experience for Faculty National Nanotechnology Infrastructure Network Microelectronics Research Center, University of Texas at Austin PI: Linda Olafsen (single investigator)	<b>\$14,000</b>
6/1/10–5/31/12	University Research Council, Baylor University “Transparent Contacts for Dual Optical and Electronic Excitation in Mid-Infrared Semiconductor Lasers” PI: Linda Olafsen (single investigator)	\$7,500

9/1/10–3/31/11	Directed Energy Professional Society (Capstone Projects) “Optically Pumped Semiconductor Analysis in the Mid-Infrared” PI: Linda Olafsen (single investigator), supported undergraduate Ian Reeves	<b>\$2,500</b>
4/1/10–3/31/11	SPIE Education Outreach Grant Celebrating the 50th anniversary of the laser in Central Texas and educating, students, the general public and other scientists about the research and technologies enabled by lasers. PI: Linda Olafsen (single investigator)	<b>\$1,500</b>
6/1/09–5/31/10	Undergraduate Research and Scholarly Achievement Program (URSA) “Undergraduate Research Experience in Infrared Laser Beam Profiling” PI: Linda Olafsen (single investigator)	\$5,000
6/1/07–5/31/08	Faculty Research Investment Program, Baylor University “Beam quality in high-efficiency IR semiconductor lasers” co-I with Jeffrey Olafsen	\$25,000
6/1/04–8/4/06	Department of Defense EPSCoR “High Efficiency, Room Temperature Mid-Infrared Semiconductor Laser Development for IR Countermeasures” PI: Linda Olafsen (single investigator)	<b>\$457,601</b>
9/30/02–7/31/06	National Institute of Health “Continuous Near-Infrared Glucose Sensor” co-I with University of Iowa; total grant \$2.5 M	<b>\$249,706</b>
7/1/02–6/30/03	University of Kansas General Research Fund (FY03) “Procuring a Black Body Radiation Source for Biophotonic Device Research and Physics Education” PI: Linda Olafsen (single investigator)	\$8,882
8/1/01–7/31/02	National Science Foundation Instrumentation for Materials Research “Acquisition of a Deep Ultraviolet/Infrared Mask Aligner for Microscale/Nanoscale Device Research and Education” PI: Linda Olafsen; co-Is: Siyuan Han, Susan Lunte, Judy Wu	<b>\$173,700</b>
7/1/01–6/30/02	University of Kansas General Research Fund (FY02) “Enhancing Acquisition of High-Quality Semiconductor Heterostructures” PI: Linda Olafsen (single investigator)	\$5,736
6/1/01–5/31/04	Office of Naval Research, Young Investigator Program “Mid-Infrared Semiconductor Heterostructures for IRCM and Sensing” PI: Linda Olafsen (single investigator)	<b>\$384,000</b>
7/1/00–6/30/01	University of Kansas General Research Fund (FY01) “Negative Electroluminescence in Type-II Antimonide-Based Semiconductors” PI: Linda Olafsen (single investigator)	\$6,240

2/1/00–4/30/01	Kansas NSF EPSCoR “Optoelectronic Investigation of Antimonide-Based Mid-Infrared Semiconductor Heterostructures” PI: Linda Olafsen (single investigator)	<b>\$31,021</b>
2/1/00–6/30/01	University of Kansas, New Faculty General Research Fund “Preliminary Investigation of Optoelectronic III-V Semiconductor Devices” PI: Linda Olafsen (single investigator)	\$9,417

**Invited Presentations (48):**

1. International Conference on Quantum Engineered Sensing and Information Technology, Paris, France, June 2023, “Quasi-Fermi Level Pinning and Optical Pumping Analysis toward Reduction of Droop in Interband Cascade Lasers.”
2. Calvin University, Grand Rapids, MI, March 2023, “Developing Efficient Semiconductor Lasers for Infrared Sensing and Biomedical Applications.”
3. Oral Roberts University, Tulsa, OK, February 2022, Host: Matthew Goelzer, “Developing Efficient Semiconductor Lasers for Infrared Sensing and Biomedical Applications.”
4. Stockton University, Physics Department, Galloway, NJ, September 2021, Host: Joseph Trout, “So You Want to be a Quantum Mechanic?”
5. International Scientific Conference on Lasers, Optics, Photonics and Sensors, Virtual, June 2021, “Optical Pumping and Reduction of Droop in Interband Cascade Lasers.”
6. Baylor University, Department of Physics, Waco, TX, September 2020, Host: B. F. L. Ward, “Optical Pumping of Interband Cascade Lasers: Reducing the Droop.”
7. Army Research Laboratory, Adelphi, MD, April 2019, “Integrating Graphene with Semiconductor Heterostructures to Reduce Droop and Increase Efficiency in Mid-Infrared Lasers.”
8. Calvin College, Grand Rapids, MI, April 2017, “More Efficient Mid-Infrared Lasers Through Integration of Graphene on Semiconductors.”
9. Oral Roberts University, Tulsa, OK, February 2017, “Integrating Graphene and Semiconductors Toward More Efficient Mid-Infrared Lasers.”
10. Baylor University, Waco, TX, February 2015, Host: Department of Electrical and Computer Engineering, “Integration of Graphene for Enhancement of Mid-Infrared Semiconductor Laser Performance.”
11. Hamline University, Saint Paul, MN, February 2014, “Mid-Infrared Semiconductor Lasers: A Practical Application of Quantum Mechanics.”

12. Tarleton State University, Stephenville, TX, April 2013, “Optical Pumping of Mid-Infrared Semiconductor Lasers” and “Mid-Infrared Semiconductor Lasers: Achieving Efficient High Temperature Operation.” (2 presentations)
13. Texas A&M University-Commerce, Commerce, TX, April 2013, “Mid-infrared Semiconductor Lasers: Toward Achieving Efficient High Temperature Operation.”
14. SPIE Photonics West, San Francisco, CA, February 2013, “Tunable excitation of mid-infrared optically pumped semiconductor lasers.”
15. University of Texas, Complex Quantum Systems/Condensed Matter Seminar, Austin, TX, October 2012, “Novel Optical Pumping Configurations of Mid-Infrared Semiconductor Lasers.”
16. Conference for Undergraduate Women in Physics, Lincoln, NE, October 2011, “Semiconductor Materials: A Practical Application of Quantum Mechanics.”
17. Texas State University, San Marcos, Department of Physics, San Marcos, TX, March 2010, “Resonantly Pumped Optical Pumping Injection Cavity Lasers.”
18. Texas A&M University, Department of Physics, College Station, TX, April 2008, “Resonantly Pumped Optical Pumping Injection Cavity Lasers.”
19. LeTourneau University, Department of Chemistry and Physics, Longview, TX, February 2007, “Practical Quantum Mechanics: Mid-Infrared Semiconductor Lasers.”
20. Baylor University, Department of Physics, Waco, TX, January 2007, “Novel Configurations of Optically Pumped Mid-Infrared Semiconductor Lasers.”
21. Wheaton College, Department of Physics, Wheaton, IL March 2006, “So You Want To Be a Quantum Mechanic?”
22. Baylor University, Department of Physics, Waco, TX, February 2006, “Antimonide-Based Semiconductor Heterostructures for Infrared Applications.”
23. Rochester Institute of Technology, Department of Physics, Rochester, NY, February 2006, “Practical Quantum Mechanics: Semiconductor Heterostructures for Infrared Applications.”
24. University of Louisville, Department of Physics, Louisville, KY, January 2006, “Development and Fabrication of Antimonide-based Semiconductor Heterostructures for Infrared Detection.”
25. Iowa State University, Materials Science and Engineering, Ames, IA, December 2005, “Development of Antimonide-based Semiconductor Heterostructures for Near- and Mid-Infrared Optoelectronic Devices.”
26. University of Southern Mississippi, Hattiesburg, MS, February 2005, “Quantum Device Design of Semiconductor Heterostructures for Near- and Mid-Infrared Applications.”
27. Virginia Polytechnic Institute and State University, Blacksburg, VA, October 2004, “Optical Pumping Injection Cavity Lasers: Toward Efficient Mid-Infrared Semiconductor Sources.”

28. University of Kansas, Department of Chemical and Petroleum Engineering, October 2004, “Development of Semiconductor LEDs and Detectors for a Continuous Near-Infrared Glucose Spectrometer.”
29. University of Kansas, Department of Physics and Astronomy, August 2004, “Quantum Device Design Through a Fundamental Picture of Electron Distribution in Semiconductor Heterostructures.”
30. University of Oklahoma, Norman, OK, April 2004, Host: Michael Santos, Colloquium: “Optical Pumping Injection Cavity Lasers: Toward Efficient Mid-Infrared Semiconductor Sources.”  
Condensed Matter Seminar: “Semiconductor Laser Optics at KU—An Overview.”
31. University of Kansas, Physical Chemistry Seminar, February 2001, “Developing Room-Temperature Antimonide-Based Semiconductor Lasers.”
32. Kansas State University, Manhattan, KS, November 2000, “Room Temperature Operation of Mid-Infrared Type-II ‘W’ Lasers.”
33. Benedictine College, Atchison, KS, September 2000, “Building Efficient Semiconductor Lasers for Mid-Infrared Applications.”
34. Sandia National Laboratories, Albuquerque, NM, January 2000, “Room Temperature W Diode Laser Emitting at 3.3  $\mu\text{m}$ .”
35. Mount Holyoke College, Department of Physics, South Hadley, MA, March 1999, “The Interband Cascade Laser: Converting Electrons to Photons in the Mid-Infrared.”
36. University of Kansas, Department of Physics and Astronomy, Lawrence, KS, March 1999, “The Interband Cascade Laser: Near-Room-Temperature Operation in the Mid-Infrared.”
37. Wake Forest University, Department of Physics and Astronomy, Winston-Salem, NC, February 1999, “The Interband Cascade Laser: Stepping Toward Efficient Room Temperature Emission in the Mid-Infrared.”
38. Towson University, Department of Physics, Astronomy, and Geosciences, Towson, MD, February 1999, “Taking the Next Steps Toward Viable Interband Cascade Lasers.”
39. Georgetown University, Department of Physics, Washington, DC, February 1999, “The Interband Cascade Laser: A Wave Function Engineering Approach to Mid-Infrared Emission.”
40. Ohio University, Department of Physics and Astronomy, Athens, OH, January 1999, “The Interband Cascade Laser: Up the Down Staircase Toward Room-Temperature Emission in the Mid-Infrared.”
41. Washington and Lee University, Department of Physics and Engineering, Lexington, VA January, 1999, “Interband Cascade Lasers: A Staircase Approach to Efficient Mid-infrared Emission.”
42. University of Delaware, Materials Science and Engineering Department, Newark, DE, December 1998, “Interband Cascade Lasers: Near-Room-Temperature Emitters for the Mid-infrared.”
43. State University of New York, Department of Physics and Astronomy, Geneseo, NY, December 1998, “Understanding Interband Cascade Lasers from the Lattice Up.”

44. Lucent Technologies, Breinigsville, PA, May 1997, Host: Dan Wilt, “Photoluminescence in GaAs/AlAs Single Quantum Wells.”
45. Los Alamos National Laboratory, May 1997, Host: Brad Edwards, “Photoluminescence in Type-I/Type-II Single Quantum Wells.”
46. Northwestern University, February 1997, Host: Manijeh Razeghi, “Photoluminescence in GaAs/AlGaAs Single Quantum Wells under Electric Field.”
47. Ohio University, February 1997, Host: Gerald Harp, “Photoluminescence in GaAs/AlAs Single Quantum Well Structures under Electric Field Bias.”
48. North Carolina State University, January 1997, Host: Jan Schetzina, “Photoluminescence in GaAs/AlAs Single Quantum Wells under Electric Field Bias.”

### Contributed Presentations (75):

1. D. R. DeVries, M. L. Salter, S. E. Balzora, **L. J. Olafsen**, J. S. Olafsen, K. E. Schubert, S. Dayawansa, and J. H. Huang, 16<sup>th</sup> International Conference on Mid-Infrared Optoelectronics: Materials and Devices (6–10 August 2023, Norman, OK), “Infrared Endovascular Navigation for Enhanced Sensing and Treatment” (poster).
2. **L. J. Olafsen**, D. DeVries, M. Salter, H. Nguyen, J. S. Olafsen, K. E. Schubert, D. C. Lee, S. Dayawansa, and J. H. Huang, 2022 Military Health System Research Symposium (12–15 September 2022, Kissimmee, FL), “*In Vivo* Infrared Sensing for Enhanced Treatment of Traumatic Injury” (poster).
3. **L. J. Olafsen**, D. DeVries, M. Salter, H. Nguyen, J. S. Olafsen, K. E. Schubert, D. C. Lee, S. Dayawansa, and J. H. Huang, 2022 Military Health System Research Symposium (12–15 September 2022, Kissimmee, FL), “Ultrasound Localization of Sub-Wavelength Surgical Guidewires in Support of Prolonged Field Care” (poster).
4. D. DeVries, **L. J. Olafsen**, H. Nguyen, A. Tanner, K. Stephens, K. E. Schubert, J. S. Olafsen, D. C. Lee, S. Dayawansa, and J. H. Huang, Graduate Research Showcase, Baylor University (October 2021, Waco, TX), “Sub-wavelength ultrasound imaging of surgical guidewires in support of prolonged field care” (poster).
5. S. Dayawansa, D. R. DeVries, **L. J. Olafsen**, K. E. Schubert, J. S. Olafsen, and J. H. Huang, 2021 Congress of Neurological Surgeons Annual Meeting (16–20 October 2021, Austin, TX), “Ultrasound (US) scans to substitute X-ray devices during endovascular procedures” (poster).
6. **L. J. Olafsen**, H. Nguyen, A. Tanner, D. Sugijanto, K. Stephens, K. E. Schubert, J. S. Olafsen, D. C. Lee, S. Dayawansa, and J. H. Huang, 2021 Military Health System Research Symposium (August 2021, Kissimmee, FL), “In vivo infrared sensing for enhanced treatment of traumatic injury.” (Conference cancelled)
7. **L. J. Olafsen**, H. Nguyen, A. Tanner, D. Sugijanto, K. Stephens, K. E. Schubert, J. S. Olafsen, D. C. Lee, S. Dayawansa, and J. H. Huang, 2021 Military Health System Research Symposium (August

- 2021, Kissimmee, FL), “Sub-wavelength ultrasound imaging of surgical guidewires in support of prolonged field care.” (Conference cancelled)
8. **L. J. Olafsen**, K. A. Stephens, D. R. Sugijanto, and N. Rumman, 2021 March Meeting of the American Physical Society (15–19 March 2021, online), “Photogenerated Voltage Bias in Optically Pumped Interband Cascade Lasers.”
  9. **L. J. Olafsen**, H. Nguyen, A. Tanner, D. Sugijanto, K. Stephens, K. E. Schubert, J. S. Olafsen, D. C. Lee, S. Dayawansa, and J. H. Huang, 2020 Military Health System Research Symposium (August 2020, Orlando, FL), “Employing in vivo infrared sensing for enhanced brain monitoring and improving outcomes for traumatic neurological injury.” (Conference cancelled)
  10. **L. J. Olafsen**, H. Nguyen, A. Tanner, D. Sugijanto, K. Stephens, K. E. Schubert, J. S. Olafsen, D. C. Lee, S. Dayawansa, and J. H. Huang, 2020 Military Health System Research Symposium (August 2020, Orlando, FL), “Improved clinical outcomes for brain-injured warfighters using sub-wavelength ultrasound imaging for hospital-based systems.” (Conference cancelled)
  11. **L. J. Olafsen** and N. Rumman, 2020 IEEE Texas Symposium on Wireless and Microwave Circuits and Systems (26–28 May 2020, Waco, TX), “Optically-Pumped Mid-Infrared Interband Cascade Lasers.”
  12. S. Dayawansa, J. W. Choi, **L. J. Olafsen**, B. Jones, L. Sparks, H. H. Nguyen, A. Tanner, K. E. Schubert, J. S. Olafsen, J. H. Huang, Congress of Neurological Surgeons 2019 Annual Meeting (19–23 October 2019, San Francisco, CA), “Current-controlled Nitinol wire for improved arterial navigation.”
  13. B. Jones, L. Sparks, and **L. J. Olafsen**, Undergraduate Research and Scholarly Achievement Scholars Week, Baylor University (1–5 April 2019, Waco, TX), “Surgical Applications of Nitinol” (poster).
  14. **L. J. Olafsen**, B. Jones, L. Sparks, H. H. Nguyen, A. Tanner, K. E. Schubert, J. S. Olafsen, S. Dayawansa, E. Fonkem, and J. H. Huang, 2019 SPIE Photonics West (2–7 February 2019, San Francisco, CA), “Current-controlled Nitinol wire for improved arterial navigation.”
  15. T. Hetrick and **L. J. Olafsen**, Undergraduate Research and Scholarly Achievement Scholars Week, Baylor University (28–29 March 2018, Waco, TX), “Optical Transmission through Coconut Oil during Phase Change” (poster).
  16. B. Jones and **L. J. Olafsen**, Undergraduate Research and Scholarly Achievement Scholars Week, Baylor University (28–29 March 2018, Waco, TX), “Graphene Transfer and Spectrum Analysis” (poster).
  17. T. Hetrick and **L. J. Olafsen**, Engineering and Computer Science Scholars Day, Baylor University (23 March 2018, Waco, TX), “Optical Transmission through Coconut Oil during Phase Change” (poster).
  18. B. Jones and **L. J. Olafsen**, Engineering and Computer Science Scholars Day, Baylor University (23 March 2018, Waco, TX), “Graphene Transfer and Spectrum Analysis” (poster).
  19. S. Dayawansa, E. A. Benardete, P. T. Noonan Jr., **L. Olafsen**, J. Olafsen, K. Schubert, and J. H. Huang, 2018 American Association of Neurological Surgeons Annual Scientific Meeting (28 April–2 May 2018, New Orleans, LA), “Optimum wide neck bifurcation aneurysm angle change (BSW index) promotes better coiling of the aneurysm.”

20. S. Dayawansa, E. A. Benardete, P. T. Noonan Jr., **L. Olafsen**, J. Olafsen, S. Lee, K. E. Schubert, and J. H. Huang, Texas Association of Neurological Surgeons (8–11 February 2018, Houston, TX), “Endosurgical Remodeling of Wide-Necked Bifurcation Aneurysms.”
21. John Miller and **Linda Olafsen**, 2016 ASEE Gulf-Southwest Annual Conference (6–8 March 2016, Fort Worth, TX), “Miniature Wind Turbine Student Design Project.”
22. S. O’Connor and **L. J. Olafsen**, Undergraduate Research and Scholarly Achievement Scholars Week, Baylor University (1–2 April 2015, Waco, TX), “Fitting Reflectivity Curves for Mid-Infrared Semiconductor Lasers” (poster).
23. **L. J. Olafsen**, Baylor Libraries Symposium 2014: 50<sup>th</sup> Anniversary of Understanding Media, Baylor University (25–26 September 2014, Waco, TX), “Revealing Content in the Infrared Using Semiconductor and Laser Media.”
24. **L. J. Olafsen**, International Conference and Exhibition on Lasers, Optics, and Photonics (7–9 October 2013, San Antonio, TX), “Investigating High-Temperature Operation Limitations in Antimonide-Based Mid-Infrared Semiconductor Lasers.”
25. **L. J. Olafsen**, L. D. Ice, and B. Ball, 11th International Conference on Infrared Optoelectronics: Materials and Devices (MIOMD-XI) (4–8 September 2012, Northwestern University, Evanston, IL), “Nonlinear Temperature Variation of Resonant Pump Wavelength in Optically Pumped Mid-Infrared Semiconductor Lasers.” (poster + 5 min talk)
26. **L. J. Olafsen**, 2012 TAMU-Casper College Summer School on Quantum Science and Engineering (15-21 July 2012, Casper College, Casper, WY), “Optical Pumping of Type-II W Antimonide-Based Semiconductor Lasers.”
27. **L. J. Olafsen**, I. K. Eaves, and J. S. Olafsen, 15th International Conference on Narrow Gap Systems (1–5 August 2011, Blacksburg, VA), “Synchronized Mid-infrared Beam Characterization of Narrow Gap Semiconductors.”
28. I. Reeves, J. S. Olafsen, and **L. J. Olafsen**, Undergraduate Research and Scholarly Achievement Scholars Week, Baylor University (6–7 April 2011, Waco, TX), “Spatio-Temporal Beam Profiling of Pulsed Infrared Laser Sources” (poster).
29. **L. J. Olafsen**, L. E. Bain, L. D. Ice, and B. Ball, 2011 March Meeting of the American Physical Society (21–25 March 2011, Dallas, TX), “Gain-Induced Refractive Index Changes in Resonantly Pumped Optical Pumping Injection Cavity Lasers.”
30. I. E. Reeves, **L. J. Olafsen**, and J. S. Olafsen, 2011 March Meeting of the American Physical Society (21–25 March 2011, Dallas, TX), “Spatio-temporal beam profiling of pulsed infrared laser sources” (poster).
31. **L. J. Olafsen**, L. E. Bain, W. W. Bewley, I. Vurgaftman, J. R. Meyer, H. Lee, and R. U. Martinelli, 2011 SPIE Photonics West (22–27 January 2011, San Francisco, CA), “Room-temperature 4.0- $\mu\text{m}$  broadened optical pumping injection cavity lasers.”
32. **L. J. Olafsen**, 2010 IEEE Photonics Society Semiconductor Laser Workshop (21 May 2010, San Jose, CA), “Resonantly Pumped Optical Pumping Injection Cavity Lasers.”

33. I. Reeves and **L. J. Olafsen**, Undergraduate Research and Scholarly Achievement Scholars Week, Baylor University (25 March 2010, Waco, TX), “Infrared Imaging and Semiconductor Analysis” (poster).
34. I. Reeves and **L. J. Olafsen**, Undergraduate Research and Scholarly Achievement Scholars Week, Baylor University (28 April 2009, Waco, TX), “Laser Beam Profiling in the Infrared” (poster).
35. **L. J. Olafsen**, K. G. Young, T. C. McAlpine, W. W. Bewley, I. Vurgaftman, J. R. Meyer, H. Lee, and R. U. Martinelli, 2008 March Meeting of the American Physical Society (10–14 March 2008, New Orleans, LA), “Temperature-Dependence of the Resonant Pump Wavelength in Optical Pumping Injection Cavity Lasers.”
36. J. P. Prineas, J. R. Yager, J. T. Olesberg, S. Seydmohamadi, C. Cao, M. Reddy, C. Coresopoulos, J. L. Hicks, T. F. Boggess, M. Santilli, and **L. J. Olafsen**, Photonics West (21–26 January 2006, San Jose, CA), “PIN versus PN homojunctions in GaInAsSb 2.0–2.5 micron mesa photodiodes.”
37. J. T. Olesberg, C. Cao, J. R. Yager, J. P. Prineas, C. Coresopoulos, M. A. Arnold, **L. J. Olafsen**, and M. Santilli, Photonics West (21–26 January 2006, San Jose, CA), “Optical microsensor for continuous glucose measurements in interstitial fluid.”
38. J. P. Prineas, M. Reddy, J. T. Olesberg, C. Cao, S. Veerasamy, M. E. Flatté, E. Koerperick, T. F. Boggess, M. R. Santilli, and **L. J. Olafsen**, International Symposium on Integrated Optoelectronic Devices, SPIE Photonics West (22–27 January 2005, San Jose, CA), “Quaternary GaInAsSb 2.0–2.5  $\mu\text{m}$  Back-Illuminated Focal Plane Array for Blood Glucose Monitoring.”
39. **L. J. Olafsen**, University of Kansas Symposium on Biophysical Sciences (18 January 2005, Lawrence, KS) “Development of Semiconductor LEDs and Detectors for a Continuous Near-Infrared Glucose Spectrometer.” (poster)
40. **L. J. Olafsen**, Statewide EPSCoR Conference (8 September 2004, Manhattan, KS) “Resonantly pumped optical pumping injection cavity lasers.” (poster)
41. **L. J. Olafsen**, T. C. McAlpine, K. R. Greene, M. R. Santilli, W. W. Bewley, C. L. Felix, I. Vurgaftman, J. R. Meyer, M. J. Yang, H. Lee, and R. U. Martinelli, 17<sup>th</sup> Annual Solid State and Diode Laser Technology Review (8–10 June 2004, Albuquerque, NM), “Optical Pumping Injection Cavity Lasers Toward High Power Conversion Efficiency at Room Temperature.”
42. T. C. McAlpine, K. R. Greene, M. R. Santilli, **L. J. Olafsen**, W. W. Bewley, C. L. Felix, I. Vurgaftman, J. R. Meyer, M. J. Yang, H. Lee, and R. U. Martinelli, 2003 Fall Meeting of the Materials Research Society (1–5 December 2003, Boston, MA), “Pump Wavelength Tuning of Optical Pumping Injection Cavity Lasers for Enhancing Mid-Infrared Operation.”
43. **L. J. Olafsen**, T. C. McAlpine, K. R. Greene, M. R. Santilli, D. C. Tanner, W. W. Bewley, C. L. Felix, I. Vurgaftman, J. R. Meyer, M. J. Yang, H. Lee, R. U. Martinelli, 2003 March Meeting of the American Physical Society (3–7 March 2003, Austin, TX), “Comparative Investigation of Optical Pumping Injection Cavity Lasers Using Variable Wavelength Excitation.”
44. J. R. Meyer, W. W. Bewley, I. Vurgaftman, C. L. Felix, **L. J. Olafsen**, D. W. Stokes, M. J. Yang, H. Lee, R. J. Menna, R. U. Martinelli, D. Z. Garbuzov, J. C. Connolly, M. Maiorov, A. K. Sugg, and G.

- H. Olsen, Conference on Lasers and Electro-Optics (7–12 May 2000, San Francisco, CA), “Optically- and electrically-pumped type-II ‘W’ quantum-well lasers for the mid-IR.”
45. **L. J. Olafsen**, Kansas Statewide EPSCoR Conference (26 April 2000, Manhattan, KS), “Optoelectronic Investigation of Antimonide-Based Mid-Infrared Semiconductor Heterostructures” and poster presentation: “Antimonide-Based Mid-Infrared Semiconductor Heterostructures.”
  46. S. Cho, Y. Kim, A. DiVenere, G. K. L. Wong, A. J. Freeman, J. B. Ketterson, **L. J. Olafsen**, I. Vurgaftman, J. R. Meyer, and C. A. Hoffman, Materials Research Society Spring Meeting (24–28 April 2000, San Francisco, CA), “Atomic-Scale Ordered Superlattice Alloys for Thermoelectric Applications.”
  47. **L. J. Olafsen**, H. Lee, W. W. Bewley, R. J. Menna, I. Vurgaftman, R. U. Martinelli, D. W. Stokes, D. Z. Garbuzov, C. L. Felix, M. Maiorov, J. R. Meyer, J. C. Connolly, A. R. Sugg, G. H. Olsen, March Meeting of American Physical Society, (20–24 March 2000, Minneapolis, MN), “ $\lambda = 3.3 \mu\text{m}$  Broadened Waveguide ‘W’ Quantum Well Diode Laser Operating at Room Temperature.”
  48. **L. J. Olafsen**, W. W. Bewley, I. Vurgaftman, C. L. Felix, E. H. Aifer, D. W. Stokes, J. R. Meyer, H. Lee, R. J. Menna, R. U. Martinelli, D. Z. Garbuzov, M. Maiorov, J. C. Connolly, A. R. Sugg, and G. H. Olsen, 1999 Fall Meeting of the Materials Research Society (29 November–3 December 1999, Boston, MA), “High Temperature W Diode Lasers Emitting at  $3.2 \mu\text{m}$ .”
  49. W. W. Bewley, C. L. Felix, I. Vurgaftman, **L. J. Olafsen**, D. W. Stokes, E. H. Aifer, J. R. Meyer, M. J. Yang, H. Lee, R. U. Martinelli, and A. R. Sugg, 1999 Fall Meeting of the Materials Research Society (29 November–3 December 1999, Boston, MA), “Optically-Pumped W and W-OPIC Lasers for High cw Power and High-Efficiency in the Mid-IR.”
  50. **L. J. Olafsen**, Workshop for Enhancing Materials Science Research in Kansas (16–17 November 1999, Emporia, KS), “Antimonide-Based Mid-Infrared Semiconductor Lasers at Room Temperature” (poster).
  51. H. Lee, R. J. Menna, R. U. Martinelli, D. Z. Garbuzov, J. C. Connolly, **L. J. Olafsen**, W. W. Bewley, I. Vurgaftman, C. L. Felix, E. H. Aifer, D. W. Stokes, J. R. Meyer, M. Maiorov, A. R. Sugg, and G. H. Olsen, '99 IEEE-LEOS Annual Meeting (8–11 November 1999, San Francisco, CA), “Broadened-Waveguide W Quantum-Well Diode Lasers Operating at  $\lambda = 3.2 \mu\text{m}$ .”
  52. C. L. Felix, W. W. Bewley, I. Vurgaftman, **L. J. Olafsen**, D. W. Stokes, J. R. Meyer, M. J. Yang, H. Lee, and R. U. Martinelli, '99 IEEE-LEOS Annual Meeting (8–11 November 1999, San Francisco, CA), “Optical Pumping Injection Cavity (OPIC) for High-Efficiency Mid-IR W Lasers.”
  53. D. W. Stokes, **L. J. Olafsen**, W. W. Bewley, I. Vurgaftman, C. L. Felix, E. H. Aifer, M. J. Yang, and J. R. Meyer, Optical Society of America Annual Meeting (26–30 September 1999, Santa Clara, CA), “Pulsed and CW Operation of Type-II W Lasers Emitting from  $5.0$  to  $7.3 \mu\text{m}$ .”
  54. I. Vurgaftman, C. L. Felix, W. W. Bewley, E. H. Aifer, **L. J. Olafsen**, D. W. Stokes, J. R. Meyer, M. J. Yang, and H. Lee, 5<sup>th</sup> Int. Conf. Intersubband Transitions in Quantum Wells (7–11 September 1999, Bad Ischl, Austria), “Antimonide Interband and Intersubband Mid-IR and Terahertz Lasers.”
  55. **L. J. Olafsen**, W. W. Bewley, I. Vurgaftman, C. L. Felix, E. H. Aifer, D. W. Stokes, J. R. Meyer, H. Lee, R. J. Menna, R. U. Martinelli, D. Z. Garbuzov, J. C. Connolly, M. Maiorov, A. R. Sugg, and G.

- H. Olsen, 3<sup>rd</sup> Int. Conf. Mid-Infrared Optoelectronics Materials and Devices (5–7 September 1999, Aachen, Germany), “Room-Temperature W Mid-IR Quantum Well Lasers.”
56. W. W. Bewley, C. L. Felix, I. Vurgaftman, **L. J. Olafsen**, D. W. Stokes, E. H. Aifer, J. R. Meyer, M. J. Yang, H. Lee, R. U. Martinelli, and A. R. Sugg, 3<sup>rd</sup> Int. Conf. Mid-Infrared Optoelectronics Materials and Devices (5–7 September 1999, Aachen, Germany), “Optically-Pumped W and W-OPIC Mid-IR Lasers.”
57. S. Cho, Y. Kim, A. DiVenere, G. K. L. Wong, A. J. Freeman, J. B. Ketterson, **L. J. Olafsen**, I. Vurgaftman, J. R. Meyer, and C. A. Hoffman, 18<sup>th</sup> Int. Conf. Thermoelectrics (29 August – 2 September 1999, Baltimore, MD), “Artificially Ordered BiSb Alloys: Growth and Transport Properties.”
58. W. W. Bewley, I. Vurgaftman, C. L. Felix, D. W. Stokes, **L. J. Olafsen**, E. A. Aifer, J. R. Meyer, M. J. Yang, B. V. Shanabrook, H. Lee, R. U. Martinelli, and J. C. Connolly, Advanced Semiconductor Lasers and Applications Conference (21–23 July 1999, Santa Barbara, CA), “High-Temperature Continuous Wave Operation of Optically-Pumped W Lasers with  $\lambda = 3\text{--}7.1\ \mu\text{m}$ .”
59. E. H. Aifer, W. W. Bewley, C. L. Felix, **L. J. Olafsen**, I. Vurgaftman, D. W. Stokes, J. R. Meyer, H. Lee, R. J. Menna, R. U. Martinelli, D. Z. Garbuzov, M. Maiorov, J. C. Connolly, A. R. Sugg, and G. H. Olsen, 41st Electronic Materials Conference (30 June–2 July 1999, Santa Barbara, CA), “New Techniques for Epi-Down Mounting of Mid-IR Type-II Quantum-Well Lasers.”
60. **L. J. Olafsen**, D. W. Stokes, W. W. Bewley, C. L. Felix, I. Vurgaftman, E. H. Aifer, J. R. Meyer, and M. J. Yang, Semiconductor Laser Workshop (28 May 1999, Baltimore, MD), “Long-wavelength optically-pumped type-II W lasers.”
61. W. W. Bewley, C. L. Felix, I. Vurgaftman, D. W. Stokes, **L. J. Olafsen**, E. H. Aifer, J. R. Meyer, M. J. Yang, B. V. Shanabrook, H. Lee, R. U. Martinelli, J. C. Connolly, and A. R. Sugg, Conference on Lasers and Electro-Optics (23–28 May 1999, Baltimore, MD), “High Temperature Continuous Wave Operation of Optically-Pumped Type-II W Lasers from  $3\text{--}7.1\ \mu\text{m}$ .”
62. J. R. Meyer, W. W. Bewley, E. A. Aifer, C. L. Felix, D. W. Stokes, **L. J. Olafsen**, I. Vurgaftman, M. J. Yang, B. V. Shanabrook, H. Lee, R. U. Martinelli, and J. C. Connolly, 12<sup>th</sup> Annual Diode Laser Technology Review (11–13 May 1999, Fort Walton Beach, FL), High-Temperature cw W Lasers Emitting at  $\lambda = 3\text{--}7.1\ \mu\text{m}$ .”
63. **L. J. Olafsen**, I. Vurgaftman, W. W. Bewley, C. L. Felix, E. H. Aifer, J. R. Meyer, J. R. Waterman, W. Mason, 1999 Centennial Meeting of the American Physical Society (20–26 March 1999, Atlanta, GA), “Negative IR Luminescence in Type-II InAs/GaSb Superlattice Photodiodes.”
64. W. W. Bewley, E. H. Aifer, C. L. Felix, I. Vurgaftman, D. W. Stokes, **L. J. Olafsen**, J. R. Meyer, M. J. Yang, B. R. Bennett, B. V. Shanabrook, H. Lee, R. U. Martinelli, and A. R. Sugg, 1999 Centennial Meeting of the American Physical Society (20–26 March 1999, Atlanta, GA), “Long Wavelength High Temperature CW Operation of Optically-Pumped Type-II W Mid-IR Lasers.”
65. W. W. Bewley, C. L. Felix, E. A. Aifer, I. Vurgaftman, **L. J. Olafsen**, J. R. Meyer, H. Lee, R. U. Martinelli, J. C. Connolly, A. R. Sugg, and G. H. Olsen, '98 IEEE-LEOS Annual Meeting (1–4 December 1998, Orlando, FL), “High-Temperature cw Operation of Optically-Pumped W-Lasers.”

66. W. W. Bewley, C. L. Felix, E. H. Aifer, I. Vurgaftman, **L. J. Olafsen**, J. R. Meyer, M. J. Yang, H. Lee, R. U. Martinelli, J. C. Connolly, A. R. Sugg, and G. H. Olsen, Materials Research Society Fall Meeting (30 November–4 December 1998, Boston, MA), “Characterization of High-Temperature Optically-Pumped Mid-Infrared W-Lasers.”
67. H. Lee, R. U. Martinelli, J. C. Connolly, W. W. Bewley, C. L. Felix, E. H. Aifer, I. Vurgaftman, **L. J. Olafsen**, J. R. Meyer, A. R. Sugg, and G. H. Olsen, 10<sup>th</sup> Int. Conf. Molecular Beam Epitaxy (31 August–4 September 1998, Cannes, France), “Molecular Beam Epitaxy of Type-II Interband InAs/GaInSb/InAs/AlAsSb Quantum Well Lasers Operating at High Temperatures.”
68. E. H. Aifer, **L. J. Olafsen**, W. W. Bewley, C. L. Felix, I. Vurgaftman, J. R. Meyer, D. Zhang, C.-H. Lin, and S. S. Pei, Electronic Materials Conference, (24–26 June 1998, Charlottesville, VA), “Processing and Characterization of Antimonide Mid-IR Diode and Interband Cascade Lasers.”
69. I. Vurgaftman, **L. J. Olafsen**, E. H. Aifer, W. W. Bewley, C. L. Felix, J. R. Meyer, C.-H. Lin, D. Zhang, S. J. Murry, and S.-S. Pei, Conference on Lasers and Electro-Optics (3–8 May 1998, San Francisco, CA), “Interband Cascade and Type-II Superlattice Mid-Infrared Lasers.”
70. **L. J. Olafsen**, E. H. Aifer, I. Vurgaftman, W. W. Bewley, C. L. Felix, J. R. Meyer, D. Zhang, C.-H. Lin, and S. S. Pei, 1998 March Meeting of the American Physical Society (16–20 March 1998, Los Angeles, CA), “Near-Room-Temperature Operation of Interband Cascade Lasers Emitting at 3.6  $\mu\text{m}$ .”
71. J. R. Meyer, W. W. Bewley, **L. J. Olafsen**, C. L. Felix, E. H. Aifer, I. Vurgaftman, M. J. Yang, L. Goldberg, D. H. Chow, D. Zhang, C.-H. Lin, and S.-S. Pei, 11th Diode Laser Technology Conference (2–4 March 1998, Albuquerque, NM), “Vertical-Cavity, Interband Cascade, and W Mid-IR Lasers.”
72. C. L. Felix, W. W. Bewley, **L. J. Olafsen**, I. Vurgaftman, E. H. Aifer, J. R. Meyer, C.-H. Lin, D. Zhang, S. J. Murry, R. Q. Yang, and S.-S. Pei, '97 IEEE-LEOS Annual Meeting (10–13 November 1997, San Francisco, CA), “Mid-IR Interband Cascade W-Laser.”
73. **L. J. Blue**, S. W. Teitsworth, T. Daniels-Race, and H. O. Everitt, 1997 March Meeting of the American Physical Society (17–21 March 1997, Kansas City, MO—Bulletin Am. Phys. Soc., **42**, 189, (1997)), “Photoluminescence of Type-I/Type-II Transitions in GaAs/AlAs Single Quantum Wells.”
74. **L. J. Blue**, S. W. Teitsworth, T. Daniels-Race, C. N. Yeh, and L. E. McNeil, 1995 March Meeting of the American Physical Society (20–24 March 1995, San Jose, CA—Bulletin Am. Phys. Soc., **40**, 75 (1995)), “Photoluminescence in GaAs/AlAs Single Quantum Wells under Electric Field Bias.”
75. C.-N. Yeh, L. E. McNeil, **L. J. Blue**, and T. Daniels-Race, 1994 March Meeting of the American Physical Society (21–25 March 1994, Pittsburgh, PA—Bulletin Am. Phys. Soc. **39**, 542 (1994)), “Photoluminescence Study of  $\Gamma$ -X Mixing in GaAs/AlAs Quantum Wells.”