

## Curriculum Vitae – Dr. Stephen M. Kuebler

*as of 14 September 2019*

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### EMPLOYMENT and APPOINTMENTS

Professor of Chemistry and Optics University of Central Florida (UCF) Joint appointment in Chemistry and CREOL, The College of Optics & Photonics Tenure in Chemistry Department, College of Science, awarded 8 Aug 2009	8 Aug 2019 - present
Co-Founder and Associate Director, UCF Center for Ethics	Aug 2019 - present
Associate Professor of Chemistry and Optics University of Central Florida	8 Aug 2009 - 7 Aug 2019
Interim Assistant Vice President of Research & Commercialization Office of Research & Commercialization, UCF	9 Aug 2012 - 31 Aug 2013
Assistant Professor of Chemistry and Optics University of Central Florida	8 Aug 2003 - 7 Aug 2009
Assistant Staff Scientist University of Arizona Department of Chemistry	1 Jul 2001 - 31 Jul 2003
Research Associate University of Arizona Department of Chemistry	26 Jan 1999 - 30 Jun 2001
Postdoctoral Research Scholar California Institute of Technology Department of Chemistry	1 Feb 1998 - 25 Jan 1999
"Kids-in-the-News" TV Reporter WBKO-TV, Bowling Green, Kentucky	Summer 1983 - Summer 1987
"Kids-in-the-News" TV Reporter KLFY-TV, Lafayette, Louisiana	Summer 1982 - Summer 1983

### EDUCATION

University of Oxford – Oxford, UK D.Phil. in Chemistry conferred Mar 1998	Aug 1991 - Jan 1998
Tulane University – New Orleans, LA B.S., summa cum laude, major in Chemistry, minor in Physics B.A., cum laude, major in German	Aug 1987 - May 1991

University of Hamburg – Hamburg, Germany  
Junior-year-abroad study while enrolled at Tulane University

Sept 1989 - July 1990

## AWARDS and RECOGNITION

- Outstanding Volunteer, awarded by Orlando Section – ACS 2018
- Research Incentive Award ("RIA", UCF College of Science, UCF) 2018
- Senior Member, OSA – Optical Society of America 2018
- Research featured on Fox 35 News:  
[https://www.youtube.com/watch?time\\_continue=4&v=B3UsIPvrkcc](https://www.youtube.com/watch?time_continue=4&v=B3UsIPvrkcc)
- Senior Member, SPIE – Soc. of Photo-Optical Instrumentation Engineers 2015  
Top 13% in the leading international professional organization for optical engineers.
- Excellence in Undergraduate Teaching Awards (College of Sciences, UCF) 2008 and 2015
- Teaching Incentive Program Award ("TIP", College of Sciences, UCF) 2009, 2014, & 2019
- Marshall Scholarship Selection Committee Member, Atlanta Region 2009 - 2013 & 2019 - present  
Association of Commonwealth Universities, UK
- NSF CAREER Award Jan 2008
- Outstanding Four Year College Teacher (Orlando Section – ACS) 2005
- Invited Participant in the NSF Germany-USA Workshop on Nanomaterials 2005  
Research exchange program sponsored jointly by NSF and the German Research Ministry (BMBF) involving 12 selected US scientists and engineers.
- Dean's Advisory Council, Barrett Honors College, Arizona State University 2000 - 2002
- NSF Graduate Research Fellowship 1993
- Marshall Scholar – Association of Commonwealth Universities, UK 1991
- Perry Medal – Tulane Univ. award to most outstanding Arts & Sciences graduate 1991
- Phi Beta Kappa 1991
- Excellence in research prize – Louisiana Chapter, ACS 1991
- Sigma Xi award for excellence in research 1991
- Goldwater Scholar 1989
- Truman Scholarship Finalist 1989
- Eagle Scout, Boy Scouts of America 1987

## LEADERSHIP

- Co-Founder and Associate Director, UCF Center for Ethics Aug 2019 - present
- Interim Assistant Vice President of Research & Commercialization 9 Aug 2012 - 31 Aug 2013  
Office of Research & Commercialization, UCF.
- COACHE Innovation Awardee in Years 1, 2, & 3 (Faculty Excellence, UCF) 2017 - present  
Awarded funding for project with Dr. Jonathan Beaver (Philosophy, UCF) to explore the ethics landscape at UCF and develop workshops and other activities that cultivate the institution's culture of ethics in research.  
(<https://facultyexcellence.ucf.edu/coache-innovation-awards>).
- Editorial Board Member, *Journal of Experimental Nanoscience* (Taylor & Francis) 2008 to present  
<http://www.tandfonline.com/action/journalInformation?show=editorialBoard&journalCode=tjen20>
- Associate Editor, *Journal of Micro/Nanolithography, MEMS, and MOEMS* (SPIE) 2008 - present  
<https://www.spiedigitallibrary.org/journals/journal-of-micro-nanolithography-mems-and-moems/editorial-board?SSO=1>
- Senior Member, OSA – Optical Society of America 2018

- Senior Member, SPIE – Soc. of Photo-Optical Instrumentation Engineers 2015  
(Top 13% in the leading international professional organization for optical engineers)
- Chaired/co-organized over 20 conferences and symposia (*see Conf. and Symp. Organized*)
- Co-organized/led over 30 workshops (*see Workshop Organization and Service*)
- Immediate Past-Chair, Orlando Sect. of American Chemical Society (ACS) Jan 2013 - Dec 2013
- Chair, Orlando Section of ACS Oct 2011 - Dec 2012
- Chair-Elect, Orlando Section of ACS Jan 2011 - Oct 2011
- Secretary, Orlando Section of ACS Jan 2010 - Dec 2010
- Outreach Coordinator, Orlando Section – ACS Jan 2009 - Oct 2010
- Chair, Organic Chemistry Faculty Search Committee, Chem. Dept., UCF 2016 - 2017
- Chair, Biochemistry Search Committee, Chem. Dept., UCF 2015 - 2016

## RESEARCH EXPERIENCES

University of Central Florida

- Development of new material systems and processes for a laser-based nano-scale 3D printing technique called "multi-photon lithography" (MPL).
- Preparation and characterization of 3D metallo-dielectric micro-/nano-scale structures and devices.
- Development of new methods for designing beam-shaping optics.
- Fabrication and characterization of functional micro-photonic devices.
- Ethics and Responsible Conduct (ERC) in STEM: Development and assessment of workshops, courses, and other vehicles for cultivating a university-wide culture ERC in STEM.

Caltech/JPL & Univ. of Arizona (Supervisors: Prof. Joseph W. Perry and Prof. Seth R. Marder)

- Development of materials for high-sensitivity two-photon-activated chemistry & microfabrication.
- Application of two-photon-induced polymerization to ultra-high-density information storage.
- Microfabrication of switchable diffractive micro-optical devices.
- Use of two-photon absorbers for optical limiting in liquid crystal charge-transport media.

Oxford (Supervisors: Prof. Robert G. Denning and Prof. Malcolm L. H. Green)

- Characterization of third-order nonlinear optical materials by degenerate four-wave mixing.

Tulane (Supervisor: Prof. Mark J. Fink)

- Preparation of a stable silanone, the silicon analog of a ketone.
- Isolation of per-*tert*-butyl-bis(cyclopropenyl), a valence isomer of per-*tert*-butyl-benzene.

Tulane (Supervisor: Prof. David M. Roundhill)

- Synthesis of a bidentate dithiolate for chelating biotoxic metals.

## GRANTS and CONTRACTS

40 contracts/grants awarded at UCF.

Total involvement: \$ 3,256,686.99 (external = \$ 2,798,272.00)

Kuebler credit-share: \$ 1,765,601.99 (external = \$ 1,572,373.00)

### *Listing of contracts and grants*

1. "Fundamental Study of Lens-Embedded Spatially-Variant Photonic Crystals"  
 PI: Stephen M. Kuebler (100%)  
 Agency: US Air Force Research Laboratory (AFRL)  
 Grant # FA8651-19-1-0003

UCF ID#: 1067797  
Start date: 05/13/2019  
End date: 08/13/2020  
Amount: \$60,192  
Type: External  
Purpose: This project funds the development of fundamental understanding of a new class of integrated photonic micro-optic that can both control the flow of optical power and focus it using one device.

2. "Sub-Contract to UCF for AFOSR-STTR Proposal with EMA"

PI: Stephen M. Kuebler (100%)  
Agency: Electro Magnetic Applications, Inc., sub-contract via primary award from US Air Force Research Laboratory via STTR contract #FA8651-19-P-0110, funded for proposal #F19A-017-0040 submitted by EMA with UCF in response to DOD BAA AF19A-T017, "Tunable bioinspired spatially-varying random photonic crystals."  
Grant # N/A, STTR Primary Contract #FA8651-19-P-0110  
UCF ID#: 1067357  
Start date: 03/06/2019  
End date: 12/16/2019  
Amount: \$44,996  
Type: External  
Purpose: The objective is to develop fundamental understanding of the structure-property relationships of bio-inspired 3D integrated photonic devices.

3. "COACHE Innovation Award Year-Three: "Sustaining Growth of the Culture of Ethics Across UCF"

PI: Jonathan Beever (50%)  
Co-PI: Stephen M. Kuebler (50%)  
Agency: UCF Faculty Excellence  
Grant # N/A  
Start date: 07/1/2019  
End date: 06/30/2020  
Amount: \$15,000 (Kuebler share = \$7,500)  
Type: Internal  
Purpose: This award provided funds for a project to cultivate a culture of ethics in research at UCF.

4. "REU Supplement to NSF Award #1711356"

PI: Stephen M. Kuebler (82%)  
Co-PI: Sasan Fathpour (18%, UCF)  
Agency: NSF  
Start date: 05/15/2018  
End date: 06/30/2020  
Amount: \$16,000 (Kuebler share = \$13,120)  
Grant#: 1834350  
UCF ID#: 1065540  
Type: External  
Purpose: This award provided funds for two undergraduate researchers.

5. "COACHE Innovation Award Year-Two: Cultivating a Culture of Ethics in Research across UCF"

PI: Jonathan Beever (50%)  
Co-PI: Stephen M. Kuebler (50%)  
Agency: UCF Faculty Excellence  
Grant #: N/A  
Start date: 07/1/2018  
End date: 06/30/2019  
Amount: \$10,000 (Kuebler share = \$5,000)  
Type: Internal  
Purpose: This award provided funds for a project to cultivate a culture of ethics in research at UCF.

6. Burnett Research Scholars Grant to Kuebler-Group undergraduate Alex Cockerham: "Low-Shrinkage Materials for Nano-Scale 3D Printing"

PI: Alexander R. Cockerham (66.6%)  
Mentor: Stephen M. Kuebler (33.3%)  
Agency: Burnett Research Scholars Program, UCF  
Start date: 12/21/2017  
End date: 12/20/2018  
Amount: \$3,000 (Kuebler share = \$1,000 to support research consumables)  
Type: Internal  
Purpose: This award funded undergraduate Alex Cockerham to investigate new low-shrinkage material systems that could be used for nano-scale 3D fabrication.

7. "2018 High School Summer Research Experience in the Kuebler-Group at UCF with the REAP/AEOP Program"

PI: Stephen M. Kuebler  
Agency: Academy of Applied Science  
Grant #: 2018 - Univ of CFL-1  
Start date: 10/01/2017  
End date: 09/30/2019  
Amount: \$5,000 (Kuebler share = \$2,000; \$1,500 provided to one student mentee each year)  
UCF ID#: 1063246  
Type: External  
Purpose: This award provided a stipend for a high school summer researcher.

8. "Collaborative Research: Photon Funnel – A Fundamentally New Concept for Concentrating Light"

PI: Stephen M. Kuebler (81%)  
Co-PI: Sasan Fathpour (19%, UCF)  
Agency: NSF  
Start date: 07/15/2017  
End date: 07/14/2020  
Amount: \$225,814 (Kuebler share = \$182,458)  
Grant#: 1711356 ([https://nsf.gov/awardsearch/showAward?AWD\\_ID=1711356](https://nsf.gov/awardsearch/showAward?AWD_ID=1711356))  
UCF ID#: 1061581  
Type: External  
Purpose: This award provides support for 3 grad-student years, supplies, and small equipment to investigate new nanophotonic devices called "photon funnels."

This award is a collaborative grant with Raymond C. Rumpf at the University of

Texas at El Paso (UTEP). The award to UTEP is NSF project no. 1711529, valued at \$174,235 ([https://nsf.gov/awardsearch/showAward?AWD\\_ID=1711529](https://nsf.gov/awardsearch/showAward?AWD_ID=1711529)).

**Kuebler serves as PI for the overall collaborative project, valued in total at \$400,049.**

9. "Light Concentrators for Next-Generation Imaging, Energy Harvesting, and Optical Computing"  
PI: Stephen M. Kuebler  
Agency: Florida Space Grant Consortium  
Start date: 09/01/2016  
End date: 08/31/2017  
Amount: \$26,250  
Grant#: 66016040-Y2  
UCF ID#: 1060831  
Type: Internal  
Purpose: This seed grant funded a graduate student to obtain preliminary results on a new class of nano-photon devices called "photon funnels." These results enabled the team to obtain the NSF grant no. 1711356.
  
10. "COACHE Innovation Award Year-One: Cultivating an Institutional Culture of Ethics and Responsible Conduct"  
PI: Jonathan Beever (50%)  
Co-PI: Stephen M. Kuebler (50%)  
Agency: UCF Faculty Excellence  
Grant # N/A  
Start date: 07/01/2017  
End date: 06/30/2018  
Amount: \$5,000 (Kuebler share = \$2,500)  
Type: Internal  
Purpose: This award provided funds for a project to cultivate a culture of ethics in research at UCF.
  
11. "High School Summer Research Experience in the Kuebler-Group at UCF with the REAP/AEOP Program"  
PI: Stephen M. Kuebler  
Agency: Academy of Applied Science  
Grant # "SG-16-074" and "2017-Univ of CFL-1"  
Start date: 05/01/2016  
End date: 09/30/2017  
Amount: \$5,000  
UCF ID#: 1060250  
Type: External  
Purpose: This award provided a stipend for a high school summer researcher.
  
12. "FHTCC: Broadband Gradient Index (GRIN) Optics Phase 3"  
PI: Kathleen Richardson (61%)  
Co-PI: Stephen M. Kuebler (39%)  
Agency: Florida High-Tech Corridor Council (FHTCC, UCF/I-4)  
Start date: 07/11/2016  
End date: 12/31/2016

Amount: \$56,666 (Kuebler share = \$22,100)  
UCF ID#: 1060458  
Type: Internal  
Purpose: The award provided matching funds to a contract with Lockheed to develop a new method for manufacturing infrared optics and supported a graduate student.

13. "Broadband Gradient Index (GRIN) Optics Phase 3"

PI: Kathleen C. Richardson (61%)  
Co-PI: Stephen M. Kuebler (39%)  
Agency: Lockheed-Martin  
Start date: 12/14/2015  
End date: 11/27/2016  
Amount: \$190,000 (Kuebler share = \$74,100)  
UCF ID#: 1060239  
Type: External  
Purpose: This award funded an investigation of a new method for manufacturing infrared optics and supported a post-doctoral researcher.

14. "High School Traineeship via AEOP/REAP 2015"

PI: Stephen M. Kuebler  
Agency: Academy of Applied Science  
Grant # 15-50 and 15-51  
Start date: 04/15/2015  
End date: 09/30/2015  
Amount: \$4,000  
UCF ID#: 1058317  
Type: External  
Purpose: This award provided a stipend for a high school summer researcher.

15. "RF: Preparation of a Reflective Surface Using a Microporous Substrate"

PI: Stephen M. Kuebler  
Agency: SemPlastics  
Grant # NA  
Start date: 07/21/2014  
End date: 12/20/2014  
Amount: \$1,497  
UCF ID#: 1057607  
Type: External  
Purpose: This contract with a company based in Oviedo provided partial support for a graduate student to explore new approaches for fabricating infrared optics.

16. "High School Traineeship via AEOP/REAP"

PI: Stephen M. Kuebler  
Agency: Academy of Applied Science  
Grant # 14-33 and 14-33A  
Start date: 04/15/2014  
End date: 09/30/2014  
Amount: \$4,000  
UCF ID#: 1057133

Type: External  
Purpose: This award provided a stipend for a high school summer researcher.

17. "MRI: Development of a Multi-Scale Thermal-Mechanical-Spectroscopic System for in-Situ Materials Characterization, Research, and Training"  
PI: Nina Orlovskaya (10%)  
Co-PI: Stephen M. Kuebler (10%, UCF), Seetha Raghavan (50%, UCF), Ali Gordon (10%, UCF), Masahiro Ishigami (20%, UCF)  
Agency: National Science Foundation  
Grant # DMR-1337758  
Start date: 9/1/2013  
End date: 08/31/2019  
Amount: \$500,000 (Kuebler share = \$50,000)  
UCF ID#: 1055384  
Type: External  
Purpose: The grant provided funds to development a one-of-a-kind materials-characterization instrument for shared use by UCF faculty and collaborators nationwide.
18. "SRI: Novel Chalcogenide Materials for Space-Based Infrared Optics"  
PI: Stephen M. Kuebler (58%)  
Co-PI: Kathleen Richardson (UCF, 42%), Rafael Guzman (UF, 0%)  
Agency: Florida Space Research Institute  
Grant # SRI 2013-A  
Start date: 7/15/2013  
End date: 02/28/2015  
Amount: \$64,999 (Kuebler share = \$37,499)  
UCF ID#: 1055794  
Type: Internal  
Purpose: The award provided support for a graduate student to develop new methods for manufacturing infrared optics.
19. "Enhanced Chalcogenide Materials for Space-Based Infrared Optics"  
PI: Stephen M. Kuebler (50%)  
Co-PI: Kathleen Richardson (UCF, 50%)  
Agency: Florida Space Grant Consortium  
Start date: 8/15/2013  
End date: 7/31/2014  
Amount: \$25,028.58 (Kuebler share = \$12,528.58)  
UCF ID#: 1055741  
Type: Internal  
Purpose: The award provided support for a graduate student to develop new methods for manufacturing infrared optics.
20. "AAS-REAP Program 2013"  
PI: Stephen M. Kuebler  
Agency: Academy of Applied Science  
Grant # 13-03  
Start date: 01/22/2013  
End date: 09/30/2013



Amount: \$2,600  
UCF ID#: 1055269  
Type: External  
Purpose: This award provided a stipend for a high school summer researcher.

21. "FHTCC: Chalcogenide Materials for Functional Optics"

PI: Stephen M. Kuebler (50%)  
Co-PI: Kathleen Richardson (50%)  
Agency: Florida High-Tech Corridor Council (FHTCC)  
Start date: 02/28/2013  
End date: 11/27/2013  
Amount: \$50,000 (Kuebler share = \$25,000)  
UCF ID#: 1055388  
Type: Internal  
Purpose: The award provided matching funds to a Lockheed contract and supported a graduate student developing a new method for manufacturing infrared optics.

22. "Chalcogenide Materials and Functional Optics"

PI: Stephen M. Kuebler (50%)  
Co-PI: Kathleen Richardson (50%)  
Agency: Lockheed Martin - Missile & Fire Control  
Start date: 01/02/2013  
End date: 11/27/2013  
Amount: \$50,000 (Kuebler share = \$25,000)  
UCF ID#: 1055237  
Type: External  
Purpose: The award provided matching funds to a contract with Lockheed and supported a graduate student to develop a new method for manufacturing infrared optics.

23. "Direct Laser Writing of Micro-IR Components"

PI: Stephen M. Kuebler  
Agency: Lockheed Martin - Missile & Fire Control  
Start date: 06/07/2012  
End date: 11/30/2012  
Amount: \$20,000  
UCF ID#: 1053795  
Type: External  
Purpose: This award funded an preliminary investigation of a new method for manufacturing infrared optics and provided partial support for a graduate students.

24. "Kuebler Group AAS-REAP Program 2012"

PI: Stephen M. Kuebler  
Agency: Academy of Applied Science  
Grant # 12-09  
Start date: 02/08/2012  
End date: 09/30/2012  
Amount: \$2,600  
UCF ID#: 1053734  
Type: External

Purpose: This award provided a stipend for a high school summer researcher.

25. "AAS-REAP Program 2011"

PI: Stephen M. Kuebler (100%)  
Agency: Academy of Applied Science  
Start date: 02/10/2011  
End date: 05/31/2012  
Amount: \$2,600  
Grant #: 11-44  
UCF ID#: 1052195  
Type: External  
Purpose: This award provided a stipend for a high school summer researcher.

26. "ARRA: Purchase and Development of a Cyber-Enabled Broadly Tunable kHz Femtosecond Laser System"

PI: Kevin D. Belfield (30%)  
Co-PIs: Stephen M. Kuebler (UCF, 30%), Florencio E. Hernandez (UCF, 30%),  
Andre Gesquiere (10%)  
Agency: National Science Foundation  
Amount: \$500,000 (Kuebler share = \$150,000)  
Grant #: 0840431  
Start date: 08/01/2009  
End date: 02/31/2015  
UCF ID#: 1047906  
Type: External  
Purpose: This award funded the acquisition of a state-of-the-art amplified femtosecond laser facility for Chemistry department and UCF faculty. This grant was awarded on 08/01/09, 7 days before the date of last promotion, but long after the promotion review, so its totals are included among awards after promotion.

27. "UCF Component of Phase I with Prime Research LC for DARPA SBIR Awarded under Proposal D082-007-0736"

PI: Stephen M. Kuebler (100%)  
Agency: DARPA via sub-contract through Prime Research  
Amount: \$31,952  
Grant #: #D082-007-0736  
Start date: 03/16/09  
End date: 08/31/09  
UCF ID#: 1049125  
Type: External  
Purpose: The award was a sub-contract from a DARPA grant co-written with high-tech company Prime Research to develop new types of fiber-optic sensors. The award provided partial support for a graduate student.

28. "Electroless Metallization onto Polymeric Surfaces: Synthesis, Analysis, and Modeling for Achieving Controlled Nanoscale Morphologies"

PI: Stephen M. Kuebler (50%)  
Co-PIs: Helge Heinrich (UCF, 25%), Aniket Bhattacharya (UCF, 25%)  
Agency: National Science Foundation

Amount: \$469,999 (Kuebler share = \$213,429)  
Grant #: 0809821  
Start date: 7/1/08  
End date: 6/30/12  
UCF ID#: 1047001  
Type: External  
Purpose: This grant funded supported a fundamental investigation to improve the chemistry of an industrially applied process for metallizing surfaces, like reflective car parts. The grant provided support for 6 years of graduate student support and consumables. The split of funds for this award differs from the credit split.

29. "REU: Three-Dimensional Multi-Scale Metallodielectric Materials"

PI: Stephen M. Kuebler (100%, no co-PIs)  
Agency: National Science Foundation  
Amount: \$4,997  
Grant #: 0939903 (Supplement to 0748712)  
Start date: 2/15/08  
End date: 1/31/2015  
UCF ID#: 1049485  
Type: External  
Purpose: This award provided funds for an undergraduate researcher.

30. "CAREER: Three-Dimensional Multi-Scale Metallodielectric Materials"

PI: Stephen M. Kuebler (100%, no co-PIs)  
Agency: National Science Foundation  
Amount: \$574,840  
Grant #: 0748712  
Start date: 2/1/08  
End date: 1/31/15  
UCF ID#: 1046316  
Type: External  
Purpose: This award funded 2 grad students and 2 undergrads for 5 years to develop new types of nano-scale optical devices.

31. "Polypeptide nano-templating: A new method for creating metal and semiconductor nanoscale structures with 3D shape control"

PI: Stephen M. Kuebler (100%, no co-PIs)  
Agency: American Chemical Society via. Petroleum Research Fund  
Amount: \$35,000  
Grant #: PRF# 42322-G5  
Start date: 9/1/05  
End date: 8/31/07  
UCF ID#: 1040910  
Type: External  
Purpose: This award provided funding for a graduate student and supplies to develop a new approach for nano-scale 3D fabrication based on folded proteins.

32. "Fabrication of photonic crystal on an optical fiber end-face for Prime Research LC"

PI: Stephen M. Kuebler (100%, no co-PIs)

- Agency: Prime Research, LC  
Amount: \$2,000  
Grant #: Not applicable  
Start date: 8/15/07  
End date: 8/14/08  
UCF ID#: 1046390  
Type: External  
Purpose: The award provided seed-funding to develop a new type of fiber-optic based sensors.
33. "Millimeter-wave component and system characterization for interdisciplinary research"  
PI: Nader Behdad (Comp. Eng. & Comp. Sci., 38%)  
Co-PI: Stephen M. Kuebler (20% credit), Lei Wei (Comp. Eng. & Comp. Sci., 10%),  
Xun Gong (Comp. Eng. & Comp. Sci., 32%)  
Agency: Pres. Initiative to Fund Major Research Eqpt. 2006-2007 (UCF internal)  
Amount: \$200,000 (Kuebler share = \$40,000)  
Start date: 2/1/07  
End date: 6/30/07  
UCF ID#: 1044989  
Type: Internal, not tracked by UCF office of sponsored research.  
Purpose: This award provided funds for the acquisition of a state-of-the-art "vector analyzer," which is used to characterize high-frequency electronic circuits.
34. "Low-cost multi-function spectrometry system for undergraduate laboratory instruction"  
PI: Stephen M. Kuebler (25%)  
Co-PIs: Andres D. Campiglia (25%), Florencio E. Hernandez (25%),  
Kevin D. Belfield (25%)  
Agency: Office of Research and Commercialization, UCF  
Amount: \$19,999.00  
UCF ID#: Internal, not assigned UCF ID#  
Type: Internal, not tracked by UCF office of sponsored research.  
Purpose: This award provided funds for the acquisition of low-cost instruments for optical and infrared spectroscopy for use in undergraduate teaching labs.
35. "2009 MRS Symposium BB, 'Material Systems and Processes for 3D Micro- and Nanoscale Fabrication & Lithography,' San Francisco, CA; April 14 - 16, 2009"  
PI: Paula Mammarella (Materials Research Soc.)  
Co-PIs: Stephen M. Kuebler (50%), Valeria T. Milam (GaTech, 50%)  
Agency: NSF – DMR, Biomaterials  
Amount: \$4,000 (Kuebler share = \$2000)  
Grant #: 0917832  
Start date: 04/01/2009  
End date: 03/31/2010  
Type: External, not tracked by UCF office of sponsored research.  
Purpose: This grant provided funding for international speakers, young faculty, and students presenting at a symposium organized and chaired by Kuebler for the spring 2009 Intl. Meeting of the Materials Research Society (San Francisco, 14-16 April 2009).
36. "Symposium BB: Material Systems and Processes for 3D Micro- and Nanoscale Fabrication and Lithography"

- PI: Paula Mammarella (Materials Research Society)  
 Co-PIs: Stephen M. Kuebler (50%), Valeria T. Milam (GaTech, 50%)  
 Agency: Air Force Office of Scientific Research  
 Amount: \$5,000 (Kuebler share = \$2,500)  
 Grant #: NA  
 Start date: 04/01/2009  
 End date: 03/31/2010  
 Type: External, not tracked by UCF office of sponsored research.  
 Purpose: This grant provided funding for international speakers, young faculty, and students presenting at a symposium organized and chaired by Kuebler for the spring 2009 Intl. Meeting of the Materials Research Society (San Francisco, 14-16 April 2009).
37. "Symposium BB: Material Systems and Processes for 3D Micro- and Nanoscale Fabrication and Lithography"
- PI: Paula Mammarella (Materials Research Society)  
 Co-PIs: Stephen M. Kuebler (50%), Valeria T. Milam (GaTech, 50%)  
 Agency: Air Force Research Laboratory  
 Amount: \$5,000 (Kuebler share = \$2,500)  
 Grant #: N/A  
 Start date: 04/01/2009  
 End date: 03/31/2010  
 Type: External, not tracked by UCF office of sponsored research.  
 Purpose: This grant provided funding for international speakers, young faculty, and students presenting at a symposium organized and chaired by Kuebler for the spring 2009 International Meeting of the Materials Research Society (San Francisco, 14-16 April 2009).
38. "Travel support for distinguished international speakers presenting at a PMSE session of the ACS Atlanta"
- PI: Stephen M. Kuebler (100%)  
 Agency: ACS-Petroleum Research Fund  
 Amount: \$3,600  
 Grant #: PRF# 44579-SE  
 Start date: 3/1/06  
 End date: 3/31/06  
 UCF ID#: Not applicable  
 Type: External, not tracked by UCF office of sponsored research.  
 Purpose: This grant provided funding for international speakers, young faculty, and students presenting at a symposium organized and chaired by Kuebler for the spring 2009 International Meeting of the Materials Research Society (San Francisco, 14-16 April 2009).
39. "Proposed use of the Photon Design electromagnetic simulation software OmniSim for modeling photonic structures created by multi-photon three-dimensional microfabrication"
- PI: Stephen M. Kuebler (100%, no co-PIs)  
 Agency: Photon Design (United Kingdom)  
 Amount: Product value equivalent to \$10,300 USD (Not included in totals above)  
 Grant #: Not applicable.  
 Start date: 3/25/05

End date: Perpetual license  
UCF ID#: Not applicable  
Type: External, in-kind award, not tracked by UCF office of sponsored research.  
Purpose: This award-in-kind from Photon Design, UK provided an open-ended license to use their software for electromagnetic simulation that supports research by graduate and undergraduate students. The award was obtained through a public competition in which competitors proposed novel uses for OmniSim in their own photonics research.

40. "Material systems and processes for polypeptide nano-templating"  
PI: Stephen M. Kuebler (no co-PIs)  
Agency: UCF Office of Research  
Amount: \$7,500  
Start date: 4/15/04  
End date: 6/30/05  
UCF ID#: 1040158  
Type: Internal  
Purpose: This award provided seed-funding to develop a new approach for nano-scale 3D fabrication based on folded proteins.

## SCHOLARSHIP

### PEER-REVIEWED PUBLICATIONS<sup>†</sup> (as of 14 Sept. 2019)

#### *39 peer-reviewed publications in total.*

Per Google Scholar: Total citations = 4890 citations; *h*-index = 22.  
i10-index = 31 (# of publications with 10 or more citations).

Per ISI Web-of-Science: Total citations = 3390; *h*-index = 18.<sup>‡</sup>

<sup>‡</sup>With paper under "Klueber" (39 citations)

<sup>†</sup>In Kuebler's field, peer-refereed scholarship is single-blind reviewed. Editors secure two to three external referees who are international experts in the discipline to assess the suitability of the work for publication.

\*Indicates corresponding author and primary investigator (PI).

Solid underline indicates graduate co-author.

Dashed underline indicates undergraduate co-author.

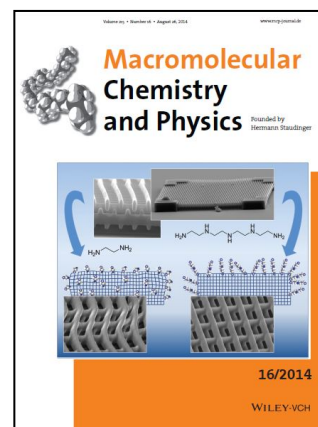
Double underline indicates high-school co-author.

#### *Journal impact factor*

The "journal impact factor" is the average number of citations to articles published in that journal. The impact factors listed below are those reported by Thomson-Reuters for 2017.

1. H. Cheng, C. Xia, M. Zhang, **S. M. Kuebler** and X. Yu. "Fabrication of high-aspect-ratio structures using Bessel-beam-activated photopolymerization." *Appl. Opt.* **2019**, 58(13), D91-D97. (<https://doi.org/10.1364/AO.58.000D91>).  
*Journal impact factor* = 1.791. *Times cited* = 0.

2. C. N. Grabill, D. Freppon, M. Hettinger, **S. M. Kuebler\***, Nanoscale morphology of electrolessly deposited silver metal, *Appl. Surf. Sci.* **2019**, 466, 230-243.  
(<https://doi.org/10.1016/j.apsusc.2018.10.006>).  
*Journal impact factor* = 4.439. *Times cited* = 1.
3. C. M. Schwarz, C. Grabill, G. D. Richardson, S. Labh, B. Gleason, C. Rivero-Baleine, K. A. Richardson, A. Pogrebnyakov, T. S. Mayer and **S. M. Kuebler\***. "Processing and fabrication of micro-structures by multiphoton lithography in germanium-doped arsenic selenide." *Opt. Mater. Express* **2018**, 8(7), 1902-1915.  
(<https://www.osapublishing.org/ome/fulltext.cfm?uri=ome-8-7-1902&id=390585>).  
*Journal impact factor* = 2.591. *Times cited* = 2.
4. C. M. Schwarz, C. N. Grabill, G. D. Richardson, S. Labh, A. M. Lewis, A. Vyas, B. Gleason, C. Rivero-Baleine, K. A. Richardson, A. Pogrebnyakov, T. S. Mayer and **S. M. Kuebler\***. "Fabrication and characterization of micro-structures created in thermally deposited arsenic trisulfide by multiphoton lithography." *J. Micro/Nanolithog., MEMS, MOEMS* **2017**, 16(2), 023508-1 - 023508-11.  
(<http://nanolithography.spiedigitallibrary.org/article.aspx?articleid=2634098&resultClick=1>).  
*Journal impact factor* = 1.350. *Times cited* = 0.
5. H. E. Williams, C. Diaz, G. Padilla, F. E. Hernandez, **S. M. Kuebler\***. "Order of multiphoton excitation of sulfonium photo-acid generators used in photoresists based on SU-8." *J. Appl. Phys.* **2017**, 121, 223104-1 - 223104-12.  
(<http://dx.doi.org/10.1063/1.4984828>).  
*Journal impact factor* = 2.068. *Times cited* = 1.
6. T. Rios-Carvajal, C. A. Sierra\*, and **S. M. Kuebler**. "Synthesis of novel phenylenevinylene linkers with electron-donating substituents by the Heck reaction," *Synth. Metals*, **2015**, 183-187  
(<http://www.sciencedirect.com/science/article/pii/S0379677915300321>).  
*Journal impact factor* = 2.435. *Times cited* = 2.
7. R. C. Rumpf\*, J. J. Pazos, J. L. Digaum, **S. M. Kuebler**. "Spatially-variant periodic structures in electromagnetics." *Phil. Trans. Royal Soc. A.* **2015**, 373, 20140359-1 - 20140359-22  
(<http://dx.doi.org/10.1098/rsta.2014.0359>).  
*Journal impact factor* = 2.970. *Times cited* = 6.
8. J. L. Digaum, J. J. Pazos, J. Chiles, J. D' Archangel, G. Padilla, A. Tatulian, R. C. Rumpf, S. Fathpour, G. D. Boreman and **S. M. Kuebler\***. "Tight control of light beams in photonic crystals with spatially-variant lattice orientation." *Opt. Express*, **2014**, 22(21), 25788 - 25804.  
(<http://dx.doi.org/10.1364/OE.22.025788>).  
*Journal impact factor* = 3.307. *Times cited* = 16.
9. **S. M. Kuebler\***, D. A. Narayanan, D. E. Karas and K. M. Wilburn. "Low-distortion surface functionalization of polymeric microstructures." *Macromolec. Chem. Phys.* **2014**, 215(16), 1533-1542. **This work was featured on the journal's cover.**  
*Journal impact factor* = 2.500. *Times cited* = 5.
10. C. J. Clukay, C. N. Grabill, M. A. Hettinger, A. Dutta, D. J. Freppon, A. Robledo, H. Heinrich, A. Bhattacharya, **S. M. Kuebler\***.

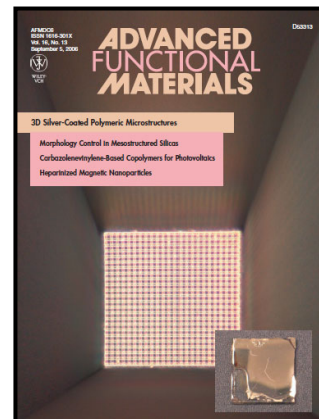


- "Controlling formation of gold nanoparticles generated *in situ* at a polymeric surface." *Appl. Surf. Sci.*, **2014**, 292, 128-136.  
*Journal impact factor* = 3.387. *Times cited* = 11.
11. Z. Luo and **S. M. Kuebler\***. "Axial superresolution of focused radially polarized light using diffractive optical elements." *Opt. Commun.*, **2014**, 315, 176-182.  
*Journal impact factor* = 1.588. *Times cited* = 2.
  12. A. Dutta, C. J. Clukay, C. N. Grabill, B. Yuan, D. J. Freppon, A. Bhattacharya, **S. M. Kuebler**, H. Heinrich\*. "Nanoscale characterization of gold nanoparticles for electroless deposition on polymeric surfaces." *J. Microscopy*, **2013**, 251, 27-34.  
*Journal impact factor* = 1.692. *Times cited* = 2.
  13. H. E. Williams, Z. Luo, **S. M. Kuebler\***. "Effect of refractive index mismatch on multi-photon direct laser writing." *Opt. Express*, **2012**, 20, 25030-25040.  
*Journal impact factor* = 3.307. *Times cited* = 9.
  14. **S. M. Kuebler\***, H. E. Williams, D. J. Freppon, R. C. Rumpf, M. A. Melino. "Creation of three-dimensional micro-photonic structures on the end-face of optical fibers." *J. Laser Micro Nanoeng.* **2012**, 7, 293 - 298.  
*Journal impact factor* = 0.763. *Times cited* = 0.
  15. D. Restrepo, K. E. Lynch, K. Giesler, **S. M. Kuebler**, and R. Blair\*. "Low-temperature (210 °C) deposition of crystalline germanium via in situ disproportionation of GeI<sub>2</sub>." *Mater. Res. Bull.*, **2012**, 47, 3484-3488.  
*Journal impact factor* = 2.446. *Times cited* = 4.
  16. H. E. Williams, D. J. Freppon, **S. M. Kuebler\***, R. C. Rumpf, M. A. Melino. "Fabrication of three-dimensional micro-photonic structures on the tip of optical fibers using SU-8." *Opt. Express*, **2011**, 19, 22910-22922.  
*Journal impact factor* = 3.307. *Times cited* = 36.
  17. A. Robledo, C. N. Grabill, **S. M. Kuebler**, A. Dutta, H. Heinrich, and A. Bhattacharya\*. "Morphologies from slippery ballistic deposition model: A bottom-up approach for nanofabrication." *Phys. Rev. E*, **2011**, 83, 051604-1 - 051604-9.  
*Journal impact factor* = 2.366. *Times cited* = 5.
  18. T. G. Jabbour and **S. M. Kuebler\***. "Particle swarm optimization of axially super-resolving binary phase diffractive optical elements." *Opt. Lett.*, **2008**, 33(13), 1533-1535.  
*Journal impact factor* = 3.416. *Times cited* = 6.
  19. T. G. Jabbour and **S. M. Kuebler\***. "Vectorial beam shaping." *Opt. Express*, **2008**, 16(10), 7203-7213.  
*Journal impact factor* = 3.307. *Times cited* = 22.
  20. T. G. Jabbour, M. Petrovich, and **S. M. Kuebler\***. "Design of axially super-resolving phase filters using the method of generalized projections." *Opt. Commun.*, **2008**, 281, 2002-2011.  
*Journal impact factor* = 1.588. *Times cited* = 14.
  21. A. Tal, Y.-S. Chen, H. E. Williams, R. C. Rumpf, and **S. M. Kuebler\***, "Fabrication and characterization of three-dimensional copper metallodielectric photonic crystals," *Opt. Express* **2007**, 15, 18283-18293.



*Journal impact factor = 3.307. Times cited = 18.*

22. R. C. Rumpf\*, A. Tal, and **S. M. Kuebler**. "Rigorous electromagnetic analysis of volumetrically complex media using the slice absorption method." *J. Opt. Soc. Am. A* **2007**, 24(10), 3123-3134. *Journal impact factor = 1.621. Times cited = 6.*
23. Y.-S. Chen, A. Tal, and **S. M. Kuebler\***. "Route to three-dimensional metallized micro-structures using cross-linkable epoxide SU-8." *Chem. Mater.* **2007**, 19(16), 3858-3860. *Journal impact factor = 9.466. Times cited = 30.*
24. T. G. Jabbour and **S. M. Kuebler\***. "Axial field shaping under high numerical aperture focusing." *Opt. Lett.* **2007**, 32, 527-529. *Journal impact factor = 3.416. Times cited = 11.*
25. Y.-S. Chen, A. Tal, D. B. Torrance, and **S. M. Kuebler\***. "Fabrication and characterization of three-dimensional silver-coated polymeric microstructures." *Adv. Funct. Mater.* **2006**, 16(13), 1739-1744. **This work was featured on the journal's cover.** *Journal impact factor = 12.124. Times cited = 45.*
26. T. G. Jabbour and **S. M. Kuebler\***. "Vector diffraction analysis of high numerical aperture focused beams modified by two- and three-zone annular multi-phase plates." *Optics Express*, **2006**, 14, 1033-1043. *Journal impact factor = 3.307. Times cited = 33.*
27. T. Yu, C. K. Ober\*, **S. M. Kuebler**, W. Zhou, S. R. Marder, and J. W. Perry. "Chemically amplified positive resists for two-photon three-dimensional microfabrication." *Adv. Mater.* **2003**, 15(6), 517-521. *Journal impact factor = 19.791. Times cited = 55.*
28. **S. M. Kuebler**, K. L. Braun, W. Zhou, J. K. Cammack, T. Yu, C. K. Ober, S. R. Marder, and J. W. Perry\*. "Design and application of high-sensitivity two-photon initiators for three-dimensional microfabrication." *J. Photochem. Photobiol. A: Chem.* **2003**, 158(2-3), 163-170. *Journal impact factor = 2.673. Times cited = 70.*
29. W. Zhou, **S. M. Kuebler**, K. L. Braun, T. Yu, J. K. Cammack, C. K. Ober, J. W. Perry, and S. R. Marder\*. "An efficient two-photon-generated photoacid applied to positive-tone 3D microfabrication." *Science* **2002**, 296, 1106-1109. *Journal impact factor = 37.205. Times cited = 591.*
30. T. Watanabe\*, M. Akiyama, K. Totani, **S. M. Kuebler**, F. Stellacci, W. Wenseleers, K. Braun, S. R. Marder, and J. W. Perry. "Photoresponsive hydrogel microstructure fabricated by two-photon initiated polymerization." *Adv. Funct. Mater.* **2002**, 12(9), 611-614. *Journal impact factor = 12.124. Times cited = 105.*
31. W. Zhou, **S. M. Kuebler**, D. Carrig, J. W. Perry, and S. R. Marder\*. "Efficient photoacids based upon triarylamine dialkylsulfonium salts." *J. Am. Chem. Soc.* **2002**, 124(9), 1897-1901. *Journal impact factor = 13.858. Times cited = 45.*
32. F. Stellacci, C. A. Bauer, T. Meyer-Friedrichsen, W. Wenseleers, V. Alain, **S. M. Kuebler**, S. J. K. Pond, Y. Zhang, S. R. Marder, and J. W. Perry\*. "Laser and electron-beam induced growth of



- nanoparticles for 2D and 3D metal patterning." *Adv. Mater.* **2002**, 14, 194-198.  
*Journal impact factor = 19.791. Times cited = 158.*
33. **S. M. Kuebler**, M. Rumi, T. Watanabe, K. Braun, B. H. Cumpston, A. A. Heikal, L. L. Erskine, S. Thayumanavan, S. Barlow, S. R. Marder, and J. W. Perry\*. "Optimizing two-photon initiators and exposure conditions for three-dimensional lithographic microfabrication." *J. Photopolym. Sci. Technol.* **2001**, 14(4), 657-668.  
*Journal impact factor = 0.791. Times cited = 128 (per Google Scholar).*
  34. **S. M. Kuebler**, R. G. Deunneing, and H. L. Anderson. "Large third-order electronic polarizability of a conjugated porphyrin polymer." *J. Am. Chem. Soc.* **2000**, 122, 339-347.  
*Journal impact factor = 13.858. Times cited = 119.*
  35. B. H. Cumpston, S. P. Ananthavel, S. Barlow, D. L. Dyer, J. E. Ehrlich, L. L. Erskine, A. A. Heikal, **S. M. Kuebler**, I.-Y. S. Lee, D. McCord-Maughon, J. Qin, H. R. Röckel, M. Rumi, X.-L. Wu, S. R. Marder, and J. W. Perry\*. "Two-photon polymerization initiators for three-dimensional optical data storage and microfabrication." *Nature* **1999**, 398, 51-54.  
*Journal impact factor = 40.137. Times cited = 1704.*
  36. J. R. G. Thorne, **S. M. Kuebler**, R. G. Denning, I. M. Blake, P. N. Taylor, and H. L. Anderson. "Degenerate four-wave mixing studies of acetylene-linked conjugated porphyrin oligomers." *Chem. Phys.* **1999**, 248(2-3), 181-193.  
*Journal impact factor = 1.767. Times cited = 48.*
  37. **S. M. Kuebler** and R. G. Denning. "Population gratings in degenerate four-wave mixing studies of a nickel dithiolene at 1064 nm." *Chem. Phys. Lett.* **1996**, 250, 120-127.  
*Journal impact factor = 1.851. Times cited = 12.*
  38. R. Dias, M. H. Garcia\*, J. C. Rodrigues, M. L. H. Green, and **S. M. Kuebler**. "Synthesis and characterisation of  $\eta^5$ -monocyclopentadienyl(*p*-nitrobenzonitrile)ruthenium(II) salts: second harmonic generation powder efficiencies." *J. Organomet. Chem.* **1994**, 475, 241-245.  
*Journal impact factor = 2.184. Times cited = 32.*
  39. R. Dias, M. H. Garcia\*, M. P. Robalo, M. L. H. Green, K. K. Lai, A. J. Pulham, **S. M. Kuebler** and G. Balavoine. "Organometallic compounds for non-linear optics: synthesis, reactivity and electrochemistry of chiral  $\eta^5$ -monocyclopentadienyl(nitrile)iron complexes." *J. Organomet. Chem.* **1993**, 453, 241-247.  
*Journal impact factor = 2.184. Times cited = 39.*

#### BOOK CHAPTERS (all peer reviewed)

1. R. Sharma, **S. M. Kuebler\***, C. N. Grabill, J. L. Digaum, N. R. Kosan, A. R. Cockerham, N. Martinez and R. C. Rumpf. "Fabrication of functional nanophotonic devices via multi-photon polymerization," in *Additive Manufacturing of Structures and Functional Devices: Materials, Methods, Models, and Testing*, A. Kotula, J. Seppala and C. Snyder, Eds. American Chemical Society and Oxford University Press: Oxford, UK, **2018**, Vol. 1315, pp. 151-171, <https://pubs.acs.org/doi/10.1021/bk-2019-1315>.
2. C. M. Schwarz, C. N. Grabill, J. L. Digaum, H. E. Williams, and **S. M. Kuebler\***. "Multi-photon processing of composite materials and functionalization of 3D structures", in *Multiphoton Lithography: Techniques, Materials and Applications*, R. Liska, J. Stampfl, and A. Ovsianikov, Eds.

(Wiley-VCH, Weinheim, **2016**), pp. 221-264.

3. **S. M. Kuebler\*** and M. Rumi. "Nonlinear optics -- applications: three-dimensional microfabrication", in *Encyclopedia of Modern Optics*, R. D. Guenther, D. G. Steel and L. Bayvel, Eds. Elsevier: Oxford, **2004**, pp. 189-206.

#### **PATENT and PROVISIONAL PATENT APPLICATIONS**

1. R. Sharma and **S. M. Kuebler**. "Method for removing metal from microstructures." USA (Serial # 62/820,976), provisional patent application filed 20 Mar. 2019.
2. R. C. Rumpf, N. P. Martinez, **S. M. Kuebler** and C. L. Valle. "Spatially variant photonic crystal apparatus, methods, and applications." USA 62/351565, provisional patent application, assigned to Board of Regents, The University of Texas System; University of Central Florida Research Foundation, Inc. (Filed 17 Jun 2016).
3. **S. M. Kuebler**, C. M. Schwarz, K. C. Richardson, H. E. Williams, T. S. Mayer and C. Rivero-Baleine. "Nanoparticles and methods for producing nanoparticles." Provisional application submitted in USA under Serial #61/975,148 for assignment to University of Central Florida, Lockheed-Martin, and Pennsylvania State University (4 Apr 2014).
4. S. Marder, J. W. Perry, W. Zhou, **S. M. Kuebler**, J. K. Cammack. "Materials, methods and uses for photochemical generation of acids and/or radical species." United States Patent #7,459,106, issued on 2 Dec. 2008 to The Arizona Board of Regents on Behalf of the University of Arizona, Tucson, AZ (US).
5. M. Mansuripur, P. Khulbe, G. Malahalali, J. Perry, **S. Kuebler**, and J. K. Erwin. "Information storage and retrieval using macro-molecules as storage media." Provisional US patent application (UA #02-023), filed 26 June 2002.

#### **INVITED PRESENTATIONS**

1. **S. M. Kuebler\***, C. Xia, P. Golvari, R. C. Rumpf, N. P. Martinez, M. Martinez, J. Gutierrez, J. Touma, H. Cheng, M. Sun, M. Zhang and X. Yu. "Routes to Nanophotonic Devices for Micron-Scale Beam Steering in 3D." 2019 Research and Applications of Photonics in Defense (RAPID, 19 – 21 August 2019, Hilton Sandestin Beach Golf Resort, Miramar Beach, FL, USA), IEEE.
2. **S. M. Kuebler\*** and J. Beaver. "Leveraging philosophy to cultivate a culture of ethical and responsible conduct in chemistry and beyond." Invited poster presented at SciMix poster symposium, American Chemical Society National Meeting and Exposition (31 Mar. - 4 Apr. 2019, Orlando, FL, USA), American Chemical Society, [international presentation](#).
3. **S. M. Kuebler\***, C. Xia, G. Yang, R. Sharma, N. P. Martinez, R. C. Rumpf and J. Touma. "3D printing functional nano-photonic devices by multi-photon lithography." Invited talk presented at SPIE Advanced Lithography: Novel Patterning Technologies for Semiconductors, MEMS/NEMS and MOEMS (24-28 Feb. 2019, San Jose, CA), M. I. Sanchez and E. M. Panning, Eds., SPIE, Vol. 10958, pp. 1095806-1 - 1095806-8, <https://doi.org/10.1117/12.2518030>, [international presentation](#).
4. **S. M. Kuebler\***, C. Xia, R. Sharma, J. L. Digaum, N. P. Martinez, C. L. Valle and R. C. Rumpf. "Fabrication of functional nanophotonic devices by multi-photon lithography." Invited paper presented at Photonics West 2019: Organic Photonic Materials and Devices XXI (2-7 Feb. 2019, San

- Francisco, CA), C. Tabor, F. Kajzar and T. Kaino, Eds., SPIE, Vol. 10915, pp. 1091502-1 - 1091502-10, <https://doi.org/10.1117/12.2508675>, [international presentation](#).
5. **S. M. Kuebler\***. "Functional optical devices created by laser-based nanoscale 3D printing." Invited lecture presented at University of South Alabama (2 Nov. 2018, Mobile, AL).
  6. **S. M. Kuebler\***. "Functional optical devices created by laser-based nanoscale 3D printing." Invited lecture presented at University of Tennessee at Knoxville (11 Oct. 2018, Knoxville, TN).
  7. **S. M. Kuebler\***. "Advances in nano-scale 3D printing by multi-photon lithography." Invited talk presented at 94th Florida Annual Meeting and Exposition (FAME 2018, 3-5 May 2018, Innsbruck Resort, Palm Harbor, FL), American Chemical Society.
  8. **S. M. Kuebler\***. "Material systems for nano-scale 3D printing by multi-photon lithography." Invited talk presented at 94th Florida Annual Meeting and Exposition (FAME 2018, 3-5 May 2018, Innsbruck Resort, Palm Harbor, FL), American Chemical Society.
  9. K. Richardson\*, M. Kang, L. Sisken, A. Yadav, C. Blanco, M. Antia, S. Novak, B. Gleason, C. Smith, A. Buff, A. Lepicard, M. Dussauze, C. Schwarz, **S. Kuebler**, C. Grabill, C. Pantano, T. Mayer, A. Pogrebnyakov, A. Swisher, C. Rivero-Baleinee, A. Kirk, S. Mensah, M. Driggers, J. Huf, P.-T. Lin, A. Agarwal, C. Lia and W. Deng. "Advances in infrared GRIN: A review of novel materials towards components and devices." Invited talk presented at SPIE Defense and Commercial Sensing (15 - 19 April 2018, Orlando, FL), SPIE, Vol. 10627, pp. 106270A-1 - 106270A-17, <https://doi.org/10.1117/12.2304608>, [international presentation](#).
  10. **S. M. Kuebler\***. "Creating new types of optical devices by laser-based nano-scale 3D printing." Invited talk presented at Munitions Directorate, Eglin Air Force Base (15 Mar. 2018, Valparaiso, FL).
  11. J. Kreisel, K. Turner and **S. M. Kuebler\***. "Florida ACS symposium for ethical chemistry." Invited talk presented at "Stories from Successful ACS Student Chapter Grants," a symposium held as part of the 255th National Meeting of the American Chemical Society (18 Mar. 2018, New Orleans, LA), American Chemical Society, [international presentation](#).
  12. **S. M. Kuebler\***. "Multiphoton lithography (MPL) for micro/nano-scale 3D manufacturing: capabilities and challenges." Invited lecture presented at The Technical Cooperation Program (TTCP) Functional Additive Workshop (13 Mar. 2018, Victoria, Canada), TTCP (<https://www.acq.osd.mil/ttcp/>), [international presentation](#).
  13. **S. M. Kuebler\***, R. Sharma, J. L. Digaum, N. Kosa, C. M. Schwarz, N. Martinez, C. L. Valle, R. C. Rumpf. "Nanophotonic Devices for Three-Dimensional Control of Optical Beams." Invited lecture presented at Drexel University (6 Oct. 2017, Philadelphia, PA).
  14. **S. M. Kuebler\***, R. Sharma, J. L. Digaum, N. Kosa, C. M. Schwarz, N. Martinez, C. L. Valle, R. C. Rumpf. "Nanophotonic Devices for Three-Dimensional Control of Optical Beams." Invited lecture presented at Ursinus College (5 Oct. 2017, Collegeville, PA).
  15. **S. M. Kuebler\***. "New approaches for controlling light in three dimensions using spatially-variant photonic crystals." Invited talk given by Kuebler at Air Force Research Laboratory, Wright-Patterson Air Force Base (9 Jun 2017, Dayton, OH).
  16. N. Martinez, C. L. Valle, **S. M. Kuebler**, J. J. Pazos, C. R. Garcia, E. A. Berry, and R. C. Rumpf\*. "Spatially-variant periodic structures in electromagnetics." Invited talk given by Rumpf at Forum for

Electromagnetic Research Methods and Application Technologies (FERMAT) (8 Sept. 2016, University of Central Florida).

17. C. Baleine\*, K. Richardson, **S. Kuebler**, D. Christodoulides, T. Mayer, and D. Werner, "Nonlinear metamaterials based on infrared glass and glass ceramic solutions," in OSA Nonlinear Metamaterials Incubator, (OSA Headquarters, 2010 Massachusetts Ave. NW, Washington, DC, USA, 2015).
18. J. L. Digaum, J. J. Pazos, R. C. Rumpf, **S. M. Kuebler\***. "Controlling light using three-dimensional spatially-variant self-collimating photonic crystals." Invited lecture given by Digaum at Physics Department Seminar, La Sierra University (Riverside, CA, 1 May 2015).
19. **S. M. Kuebler\***, J. L. Digaum, J. Pazos, J. Chiles, G. Padilla, A. Tatulian, R. C. Rumpf, and S. Fathpour. "Tight control of light beams in photonic crystals with spatially-variant lattice orientation." Invited paper presented by Kuebler at "Frontiers in Optics/Laser Science -- FiO 1.1: Three-Dimensional Optical Structure Design, Fabrication and Nanopatterning," Optical Society of America (Tucson, AZ, 19-23 Oct. 2014), [international presentation](#).
20. **S. M. Kuebler\***. "Development of materials and additive manufacturing processes for fabricating light-weight, low-cost, infrared meta-optics using photo-patternable chalcogenide glasses." Invited paper presented at the 2014 Lockheed-Martin Technical Fellows Meeting (10 Sept. 2014, Orlando, FL).
21. **S. M. Kuebler\***. "Nanophotonic Materials Created by Multi-Photon Direct Laser Writing." Invited lecture presented by Kuebler at University of North Carolina at Charlotte (Charlotte, NC, 21 Aug 2014).
22. **S. M. Kuebler\***. "Nanophotonic Materials Created by Multi-Photon Direct Laser Writing." Invited lecture presented by Kuebler at the Photonics Center, Boston University (Boston, MA, 28 Aug 2014).
23. **S. M. Kuebler\***, H. E. Williams, D. J. Freppon, R. C. Rumpf, and M. A. Melino. "Creation of three-dimensional micro-photonic structures on the end-face of optical fibers." Invited paper presented by Kuebler at the 13th International Symposium on Laser Precision Microfabrication (Japan Laser Processing Society: Washington, D. C., 2012), [international presentation](#).
24. **S. M. Kuebler\***. "Axial and transverse laser beam shaping using vector diffraction theory." Invited lecture presented at the Computational and Optical Sensing and Imaging (COSI) NSF-IGERT program (University of Colorado at Boulder, 27 Sept. 2010).
25. **S. M. Kuebler** and Toufic G. Jabbour. "Transverse and axial beam shaping in the non-paraxial domain." Keynote Presentation given at Laser Beam Shaping X, Conf. #7430 of SPIE Optics and Photonics 2009; *Proc. SPIE*, vol. 7430, paper 7430-01 (2-6 Aug. 2009, San Diego, CA), [international presentation](#).
26. **S. M. Kuebler**. "Hybrid top-down/bottom-up route to 3D metallo-dielectric metamaterials." Invited paper presented at the 2009 Workshop on Wave Function Engineering and Coherent Control in Nanostructured Materials, Los Alamos National Laboratory (25-27 Feb. 2009, Los Alamos, NM).
27. **S. M. Kuebler**. "Fabrication of metallo-dielectric photonic crystals using multi-photon direct laser writing." Invited paper presented at the Southeast Ultrafast Conference, 15 Jan. 2009, Univ. of Central Florida, Orlando, FL).
28. **S. M. Kuebler**. "Preparation of metallo-dielectric metamaterials by direct laser writing and new

- approaches for enhancing focal spot resolution." Invited paper presented at the Laser Center of Hannover (13 May 2008, Hannover, Germany), [international presentation](#).
29. **S. M. Kuebler**. "Development and applications of multi-photon direct laser writing." IBM Almaden Research Center (25 Jan. 2008, Almaden, CA).
  30. **S. M. Kuebler**, Y.-S. Chen, H. E. Williams, A. Tal. "Preparation and characterization of metallo-dielectric photonic crystals." Southeast Regional Meeting of the American Chemical Society (24-26 Oct. 2007, Greenville, SC).
  31. **S. M. Kuebler**, Y.-S. Chen, and A. Tal. "Fabrication of functional metal/polymer composite microstructures." Invited paper presented at Material Research Society Fall Meeting (San Francisco, 8-12 Apr. 2007), [international presentation](#).
  32. **S. M. Kuebler**. "Development and applications of multi-photon direct laser writing -- a versatile approach for three-dimensional micron-scale fabrication." Invited paper presented at Tulane University (New Orleans, LA, 2 Apr. 2007).
  33. **S. M. Kuebler**, A. Tal, and Y.-S. Chen. "Fabrication and optical properties of metal-polymer composite photonic crystals." Invited paper presented at 10th Annual Southeast Ultrafast Conference (Vanderbilt Univ., Nashville, TN, 11-12 Jan. 2007).
  34. **S. M. Kuebler**. "Three dimensional micro- and nano-scale fabrication via multi-photon activated chemistry." Invited paper presented at Workshop on Nanomaterials, Karlsruhe, Germany, jointly sponsored by NSF and the German Research Ministry (BMBF), in conjunction with a tour by young US scientists and engineers of Germany's Competence Centers in Nanotechnology (14 Mar. 2005, Forschungszentrum Karlsruhe, Karlsruhe, Germany), [international presentation](#).
  35. **S. M. Kuebler**. "Advances in multi-photon three-dimensional microfabrication." Invited paper presented at Optics in the Southeast 2004, Optical Society of America (Charlotte, NC, 3-4 Nov. 2004).
  36. **S. M. Kuebler**. "Nanophotonic structures and devices via two-photon three-dimensional microfabrication." Invited presenter on expert panel for the "DSRC Brainstorming Workshop on Prospects and Limits for Nanophotonics", David Miller, Chair, Defense Sciences Research Council (DSRC)/DARPA, Arlington VA, 10 May 2004, 2004.
  37. **S. M. Kuebler**, J. W. Perry, S. R. Marder, C. K. Ober, K. L. Braun, T. Yu, and W. Zhou. "High-sensitivity material systems for two-photon three-dimensional microfabrication." Invited paper presented by Kuebler at Photonics West 2004, "Micromachining Technology for Micro-Optics and Nano-Optics II" (San Jose, CA, 24-29 Jan. 2004), *Proc. Soc. of Photo-Opt. Instr. Eng.*, Vol. 5347, pp. 111-117, [international presentation](#).
  38. M. Mansuripur, P. K. Khulbe, **S. M. Kuebler**, J. W. Perry, M. S. Giridhar and N. Peyghambarian. "Information storage and retrieval using macromolecules as storage media." Invited talk presented at Philips Research Laboratories (Sept. 2003, Eindhoven, Netherlands), [international presentation](#).
  39. **S. M. Kuebler**, M. Rumi, T. Watanabe, K. Braun, B. H. Cumpston, A. A. Heikal, L. L. Erskine, S. Thayumanavan, S. Barlow, S. R. Marder, and J. W. Perry. "Two-photon initiators for highly efficient three-dimensional lithographic microfabrication." Invited paper presented by Kuebler at 2nd International Conference on Photonics Science and Technology (Chitose, Japan, 6-8 Sept. 2001), *Nanotechnology: Toward the Organic Photonics*, H. Sasabe, Ed., GooTech, Ltd.: Chitose,

Japan, pp. 77-94, [international presentation](#).

## PUBLISHED CONFERENCE PAPERS and PROCEEDINGS

1. [H. Cheng](#), [C. Xia](#), [M. Sun](#), M. Zhang, **S. M. Kuebler** and X. Yu\*. "Micro- and nano-fabrication using bessel-beam activated photopolymerization." 38th International Congress on Applications of Lasers & Electro-Optics (ICALEO) (7-10 Oct. 2019, Orlando, FL), Laser Institute of America.
2. N. P. Martinez, G. Welch, M. Martinez, J. E. Touma, J. K. Lentz, **S. M. Kuebler** and R. C. Rumpf\*. "Spatially-Variant Photonic Crystals and Possible Applications." 2018 Research and Applications of Photonics in Defense (RAPID) (22 – 24 August 2018, Hilton Sandestin Beach Golf Resort, Miramar Beach, FL, USA), IEEE, pp. 333 - 336, <https://ieeexplore.ieee.org/document/8509003>, [international presentation](#).
3. **S. M. Kuebler\***, [R. Sharma](#), [J. L. Digaum](#), [N. Martinez](#), [C. L. Valle](#) and R. C. Rumpf. "Nanophotonic devices for three-dimensional control of optical beams." Frontiers in Optics/Laser Science: 4.5 General Photonics and Fiber Optics, Session: Nanophotonics I; Paper No.: FM3D.5 (17 - 21 Sept 2017, Washington, D. C.), Optical Society of America, [international presentation](#).
4. [J. L. Digaum](#), [R. Sharma](#), [D. Batista](#), [J. Pazos](#), R. C. Rumpf and **S. M. Kuebler\***. "Beam-bending in spatially variant photonic crystals at telecommunications wavelengths." Proc. SPIE 9759, Advanced Fabrication Technologies for Micro/Nano Optics and Photonics IX (13-18 Feb. 2016, San Francisco, CA), G. von Freymann, W. V. Schoenfeld and R. C. Rumpf, Eds., SPIE, pp. 975911-1 - 975911-6, [international presentation](#).
5. C. M. Schwarz, [S. Labh](#), [J. E. Barker](#), [R. J. Sapia](#), [G. D. Richardson](#), C. Rivero-Baleine, [B. Gleason](#), K. A. Richardson, A. Pogrebnyakov, T. S. Mayer and **S. M. Kuebler\***. "Multi-photon lithography of 3D micro-structures in As<sub>2</sub>S<sub>3</sub> and Ge<sub>5</sub>(As<sub>2</sub>Se<sub>3</sub>)<sub>95</sub> chalcogenide glasses." Advanced Fabrication Technologies for Micro/Nano Optics and Photonics IX (13-18 Feb. 2016, San Francisco, CA), SPIE, Vol. 9759, pp. 975916-1 - 975916-8, [international presentation](#).
6. [R. Sharma](#), **S. M. Kuebler\***, [J. L. Digaum](#), R. C. Rumpf and [J. Pazos](#). "Tight control of light beams in photonic crystals with spatially-variant unit cells." Frontiers in Optics/Laser Science -- Photonic Crystals (18-22 Oct. 2015, San Jose, CA), Optical Society of America, pp. FTu2B.2-1 - FTu2B.2-2, [international presentation](#).
7. **S. M. Kuebler\***, C. Schwarz, [C. Grabill](#), [S. Labh](#), [G. Richardson](#), C. Rivero-Baleine, K. Richardson, A. Pogrebnyakov and T. Mayer. "Chalcogenide glass processing for direct laser writing of 3D nano-structures." Frontiers in Optics/Laser Science -- Photonic Crystals (18-22 Oct. 2015, San Jose, CA), Optical Society of America, pp. FTh3F.2-1 - FTh3F.2-2, [international presentation](#).
8. [J. L. Digaum](#), [J. J. Pazos](#), R. C. Rumpf, [J. Chiles](#), S. Fathpour, [J. Thomas](#), **S. M. Kuebler\***. "Polarization sensitive beam bending using a spatially-variant photonic crystals." Photonics West 2015: Photonic and Phononic Properties of Engineered Nanostructures V (San Francisco, CA, 7-12 Feb. 2015), SPIE, pp. 93710I-1 - 93710I-8, [international presentation](#).
9. C. M. Schwarz, [C. N. Grabill](#), [B. Gleason](#), [G. D. Richardson](#), [A. M. Lewis](#), [A. Vyas](#), C. Rivero-Baleine, K. A. Richardson, A. Pogrebnyakov, T. S. Mayer. **S. M. Kuebler\***. "Fabrication and characterization of micro-structures created by direct laser writing in multi-layered chalcogenide glasses." Photonics West 2015: Advanced Fabrication Technologies for Micro/Nano Optics and Photonics VIII (San Francisco, CA, 7-12 Feb. 2015), SPIE, pp. 937403-1 to 937403-9, [international presentation](#).

- [presentation](#).
10. **S. M. Kuebler\***, [H. E. Williams](#), [C. Diaz](#), [G. Padilla](#), and F. E. Hernandez. "Nonlinear excitation associated with direct laser writing in SU-8." Contributed paper presented by Kuebler at "Frontiers in Optics/Laser Science -- FiO 1.1: General Optical Design, Fabrication, Testing, and Instrumentation IV," Optical Society of America (Tucson, AZ, 19-23 Oct. 2014), [international presentation](#).
  11. [C. M. Schwarz](#), [H. E. Williams](#), [C. N. Grabill](#), [A. M. Lewis](#), **S. M. Kuebler\***, [B. Gleason](#), [K. A. Richardson](#), [A. Pogrebnyakov](#), [T. S. Mayer](#). "Processing and properties of arsenic trisulfide chalcogenide glasses for direct laser writing of 3D micro-structures." Photonics West 2014: Advanced Fabrication Technologies for Micro/Nano Optics and Photonics VII (San Francisco, CA, 1-6 Feb. 2014), [international presentation](#).
  12. [J. Digaum](#), **S. M. Kuebler\***. "Interdependence of reabsorption and internal energy losses in luminescent solar concentrators." Photonics West 2014: Physics, Simulation, and Photonic Engineering of Photovoltaic Devices III (San Francisco, CA, 1-6 Feb. 2014), [international presentation](#).
  13. **S. M. Kuebler\***, [A. Tal](#), and [Y.-S. Chen](#). "Preparation of metallo-dielectric photonic crystals by multi-photon direct laser writing." Photonics West 08: Photonic Crystal Materials and Devices VII (San Jose, CA, 2008), [A. Adibi, S.-Y. Lin, and A. Scherer; Eds., SPIE, Vol. 6901, pp. 69010Z-1 - 69010Z-8](#)), [international presentation](#).
  14. **S. M. Kuebler\***, [Y.-S. Chen](#), and [A. Tal](#). "Metallo-dielectric nanophotonic materials via direct laser writing and electroless metallization." Photonics West 08: Advanced Fabrication Technologies for Micro/Nano Optics and Photonics (20-24 Jan. 2008, San Jose, CA), [T. J. Suleski, W. V. Schoenfeld, and J. J. Wang; Eds., SPIE, Vol. 6883, pp. 68830L-1 - 68830L-9](#), [international presentation](#).
  15. [T. G. Jabbour](#) and **S. M. Kuebler\***. "Axial field engineering in the nonparaxial domain." Photonics West 08: Three-Dimensional and Multidimensional Microscopy: Image Acquisition and Processing XV (20-24 Jan 2008, San Jose, CA), [J. A. Conchello, C. J. Cogswell, T. Wilson, and T. G. Brown; Eds., SPIE, Vol. 6861, pp. 68610P1 - 68610P8](#), [international presentation](#).
  16. [T. G. Jabbour](#) and **S. M. Kuebler\***. "Design of axially super-resolving phase pupil filter for high-numerical aperture applications." Photonics West 08: Advanced Fabrication Technologies for Micro/Nano Optics and Photonics (20-24 Jan 2008, San Jose, CA), [T. J. Suleski; W. V. Schoenfeld; J. J. Wang; Eds., SPIE, Vol. 6883, pp. 688310-1 - 688310-9](#), [international presentation](#).
  17. **S. M. Kuebler\***, [A. Tal](#), and [Y.-S. Chen](#). "Silvered three-dimensional polymeric photonic crystals having a large mid-infrared stop band." Photonics West 2007: Micromachining Technology for Micro-Optics and Nano-Optics V and Microfabrication Process Technology XII (22-24 Jan. 2007, San Jose, CA), [M.-A. Maher, H. D. Stewart, J.-C. Chiao, T. J. Suleski, E. G. Johnson, and G. P. Nordin; Eds., SPIE, Vol. 6462, pp. 646213-1 - 646213-6](#), [international presentation](#).
  18. **S. M. Kuebler\*** and [T. G. Jabbour](#). "Effect of two- and three-zone phase masks on the axial and transverse intensity distribution under high numerical aperture focusing." Photonics West 2006: Micromachining Technology for Micro-Optics and Nano-Optics IV (San Jose, CA). [Johnson, E. G.; Nordin, G. P.; Suleski, T. J.; Eds., SPIE, 23-25 Jan. 2006, Vol. 6110, pp. 61100B1 - 61100B6](#), [international presentation](#).
  19. [K. D. Belfield](#), **S. M. Kuebler**, and [C. Yanez](#). "Advances in two-photon photoinitiators and 3D



- microfabrication." RadTech Europe 05 (Barcelona, Spain, 18-20 October 2005), [international presentation](#).
20. T. G. Jabbour and **S. M. Kuebler\***. "Effect of two- and three-zone phase masks on the three-dimensional intensity point-spread-function under tight focusing." Optics in the Southeast 2005 (Atlanta, GA, 6-8 Oct. 2005), Optical Society of America.
  21. W. Dong, V. Chen, **S. M. Kuebler**, K. L. Braun, F. Stellacci, C. A. Bauer, M. Halik, W. Zhou, T. Yu, C. K. Ober, S. R. Marder, and J. W. Perry. "Two-photon 3D micro- and nano-fabrication of polymers, metals and hybrid materials." 6th International Conference on Intelligent Materials and Systems (Tokyo, 4-6 July 2005), [international presentation](#).
  22. I. B. Divliansky, G. Weaver, M. Petrovich, T. Jabbour, H. P. Seigneur, C. Parnell-Lampen, A. Thompson, K. D. Belfield, and **S. M. Kuebler\***. "CAD-integrated system for automated multi-photon three-dimensional micro- and nano-fabrication." Paper presented by Kuebler at Photonics West 2005, "Micromachining Technology for Micro-Optics and Nano-Optics III" (2005, 24-29 Jan. 2005, San Jose, CA), *Proc. Soc. of Photo-Opt. Instr. Eng.*, Vol. 5720, pp. 196-203, [international presentation](#).
  23. **S. M. Kuebler**, K. L. Braun, F. Stellacci, C. A. Bauer, M. Halik, W. Zhou, T. Yu, C. K. Ober, S. R. Marder, and J. W. Perry. "Two-photon 3D lithography: materials and applications." *Polym. Preprints: Polym. Mater. Sci. Eng.* **2004**, 91, 342-343, [international presentation](#).
  24. **S. M. Kuebler**, K. Mohanalingam, and J. W. Perry. "Two-photon microfabrication of switchable diffractive optical devices." Fifth International Symposium on Laser Precision Microfabrication (1-14 May 2004, Nara, Japan), *Proc. Soc. of Photo-Opt. Instr. Eng.*, Vol. 5662, pp. 83-88, [international presentation](#).
  25. T. Yu, C. K. Ober, **S. M. Kuebler**, W. Zhou, S. R. Marder, and J. W. Perry. "Three-dimensional microfabrication in chemically amplified positive resists by two-photon lithography." *Advances in Imaging and Materials Processes*, H. Ito, R. Varanasi, M. Khojasteh, and R. Chen; Eds., Proc. Soc. Plastics Eng., Vol. 307, 2003.
  26. J. Wang, W. Zhou, K. L. Braun, S. Barlow, **S. M. Kuebler**, J. W. Perry, and S. R. Marder. "Synthesis and characterization of efficient two-photon acid generators for 3D microfabrication." 225th ACS National Meeting (23-27 Mar. 2003, New Orleans, LA), *Polym. Preprints*, Vol. 44, pp. 970-910, [international presentation](#).
  27. M. Mansuripur, P. K. Khulbe, **S. M. Kuebler**, J. W. Perry, M. S. Giridhar, J. K. Erwin, K. Seong, S. R. Marder, and N. Peyghambarian. "Information storage and retrieval using macromolecules as storage media." Optical Data Storage 2003 (11-14 May 2003, Vancouver, Canada), *Proc. Soc. Photo-Opt. Instrum. Eng.*, Vol. 5069, pp. 231-243, [international presentation](#).  
<https://doi.org/10.1364/ODS.2003.TuC2>.  
*Times cited = 3.*
  28. **S. M. Kuebler**, K. Braun, J. K. Cammack, M. Rumi, T. Yu, W. Zhou, C. K. Ober, S. M. Marder, and J. W. Perry. "Design and applications of high-sensitivity two-photon initiators for three-dimensional microfabrication." Paper presented by Kuebler at SPIE International Symposium on Optical Science and Technology: Nanoscale Optics and Applications (8-9 July 2002, Seattle, WA), *Proc. Soc. of Photo-Opt. Instr. Eng.*, Vol. 4809, pp. 170-178, [international presentation](#).
  29. F. Stellacci, C. Bauer, T. Meyer-Friedrichsen, W. Wenseleers, V. Alain, **S. M. Kuebler**, S. J. Pond,

- Y. Zhang, S. R. Marder, and J. W. Perry. "One- and two-photon induced growth of ligand coated nanoparticles for 2 & 3D metal patterning." Paper presented at the SPIE International Symposium on Optical Science and Technology (8-9 July 2002, Seattle, WA), *Proc. Soc. of Photo-Opt. Instr. Eng.*, Vol. 4809, pp. 62-68, [international presentation](#).
30. T. Yu, C. K. Ober, **S. M. Kuebler**, W. Zhou, S. M. Marder, and J. W. Perry. "Two-photon positive tone lithography for three-dimensional microfabrication." Paper presented at the 224th ACS National Meeting, Polymeric Materials Science and Engineering Division (18-22 Aug. 2002, Boston, MA), *Polym. Mater. Sci. Eng.*, Vol. 87, p. 411, [international presentation](#).
31. **S. M. Kuebler**, B. H. Cumpston, S. Ananthavel, S. Barlow, J. E. Ehrlich, L. L. Erskine, A. A. Heikal, D. McCord-Maughon, J. Qin, H. Röckel, M. Rumi, S. R. Marder, and J. W. Perry. "Three-dimensional microfabrication using two-photon activated chemistry." Paper presented by Kuebler at Photonics West 2000, Optoelectronics 2000: Micro- and Nano-photonic Materials and Devices (2003, San Jose, CA), *Soc. Photo-Opt. Instrum. Eng.*, Vol. 3937, pp. 97-105, [international presentation](#).  
<https://doi.org/10.1117/12.382799>  
*Times cited = 18 (per Google Scholar)*
32. B. H. Cumpston, J. E. Ehrlich, **S. M. Kuebler**, M. Lipson, S. R. Marder, D. McCord-Maughon, J. W. Perry, H. Röckel, and M. Rumi. "Three-dimensional microfabrication using two-photon polymerization." Paper presented by Kuebler at the SPIE 1998 Symposium and Continuing Education on Micromachining and Microfabrication (Santa Clara, CA), *Soc. Photo-Opt. Instrum. Eng.*, Vol. 3512, p. 168, [international presentation](#).

## CONFERENCE PRESENTATIONS

1. **S. M. Kuebler** and R. Sharma. "Gentle etching of metal from polymeric three-dimensional structures: Making scanning electron microscopy a non-destructive technique." Contributed poster COLL #324 presented at 257th National Meeting of the American Chemical Society, Division of Colloid and Surface Chemistry, Nanomaterials: Advanced Nanoscale Characterization: In Situ TEM & Beyond (31 Mar. - 4 Apr. 2019, Orlando, FL, USA), American Chemical Society, [international presentation](#).
2. **S. M. Kuebler** and C. N. Grabill. "Controlling the nanoscale morphology of silver deposited by electroless metallization." Contributed paper INOR #1052 presented at 257th National Meeting of the American Chemical Society, Division of Inorganic Chemistry: Chemistry of Materials - Nanomaterials (31 Mar. - 4 Apr. 2019, Orlando, FL, USA), American Chemical Society, [international presentation](#).
3. **S. M. Kuebler** and J. Beever. "Leveraging philosophy to cultivate a culture of ethical and responsible conduct in chemistry and beyond." *Invited* SciMix poster for paper CHED #1860 presented at 257th National Meeting of the American Chemical Society, SciMix poster symposium (31 Mar. - 4 Apr. 2019, Orlando, FL, USA), American Chemical Society, [international presentation](#).
4. **S. M. Kuebler** and J. Beever. "Leveraging philosophy to cultivate a culture of ethical and responsible conduct in chemistry and beyond." Contributed paper #CHED 1860 presented at American Chemical Society National Meeting and Exposition (31 Mar. - 4 Apr. 2019, Orlando, FL, USA), American Chemical Society, [international presentation](#).

5. A. Preston, A. Ferguson, J. Kreisel, **S. M. Kuebler** and N. Takenaka. "Fostering professional development and inter-chapter relations through the annual Florida chemistry conclave." Contributed poster CHED #1613 presented at 257th National Meeting of the American Chemical Society, Division of Chemical Education: Successful Student Chapters (31 Mar. - 4 Apr. 2019, Orlando, FL, USA), American Chemical Society, [international presentation](#).
6. J. Kreisel, **S. M. Kuebler**, A. Zuleta-Visser and J. Chang. "Bonding with Bithlo: Enhancing the quality of K-12 science education in an underprivileged community." Contributed poster CHED #1610 presented at 257th National Meeting of the American Chemical Society (31 Mar. - 4 Apr. 2019, Orlando, FL, USA), American Chemical Society, [international presentation](#).
7. J. Beever\* and **S. M. Kuebler**. "Understanding ethics culture: A ground-up assessment and development of the culture of ethics at a major metropolitan university." Contributed paper presented at Twenty-Eighth Annual Conference of the Association for Practical and Professional Ethics (28 Feb. - 3 Mar. 2019, Baltimore, Maryland).
8. **S. M. Kuebler**, R. Sharma, J. L. Digaum, N. Kosan, N. Martinez, C. L. Valle and R. C. Rumpf. "Polymeric nanophotonic devices for abrupt control of optical beams in three dimensions." 255th National Meeting of the American Chemical Society (18 - 22 Mar. 2018, New Orleans, LA), American Chemical Society, [international presentation](#).
9. J. Kreisel\*, **S. M. Kuebler**, L. Gandy, R. Sapia and N. Takenaka. "Fostering professional development and inter-chapter relations through the Annual Florida Chemistry Conclave." Poster presented at 255th National Meeting of the American Chemical Society (18 - 22 Mar. 2018, New Orleans, LA), American Chemical Society, [international presentation](#).
10. C. Schwarz, M. Kang, C. Pantano, K. Richardson, C. Rivero-Baleine, **S. Kuebler**, C. Grabill, J. Rice, Q. Altemose, K. Raichle, B. Schnable, I. Wietecha-Reiman, E. Haldeman. "Optical and crystal growth studies of ZnO-Bi<sub>2</sub>O<sub>3</sub>-B<sub>2</sub>O<sub>3</sub> glass." Contributed paper presented at 2018 SPIE Defense and Commercial Sensing (15-19 April 2018, Orlando, FL), SPIE, Vol. 10627, pp. 1062700-1 - 1062700-8, <https://doi.org/10.1117/12.2304446>, [international presentation](#).
11. Q. Altemose, K. Raichle, B. Schnable, C. M. Schwarz\*, M. Kang, C. G. Pantano, K. Richardson, C. Rivero-Baleine and **S. Kuebler**. "In situ X-ray diffraction studies of crystallization growth behavior in ZnO-Bi<sub>2</sub>O<sub>3</sub>-B<sub>2</sub>O<sub>3</sub> glass as a route to functional optical devices." Contributed paper presented at "In Situ Studies of Materials Transformations (TC02)", a symposium held as part of the 2017 Fall Meeting of the Materials Research Society (26 Nov - 1 Dec 2017, Boston, MA), Materials Research Society, [international presentation](#).
12. N. Kosan, R. Sharma, J. Digaum, and **S. M. Kuebler\***. "Controlling light with spatially variant photonic crystals and waveguide structures," 2017 Florida Undergraduate Research Conference (Florida Atlantic University, Boca Raton, FL, 24-25 Feb. 2017, 2017).
13. C. M. Schwarz, C. Grabill, B. Gleason, R. Sapia, J. Barker, C. Rivero-Baleine, K. Richardson, A. Pogrebnyakov, T. S. Mayer and **S. M. Kuebler\***. "Multi-photon lithography of 3D micro-structures in Ge-doped AsSe chalcogenide glasses." 252nd Annual Meeting of the American Chemical Society (21 - 25 Aug. 2016, Philadelphia, PA), [international presentation](#).
14. L. Gandy, B. Mourant, Y. Y. L. Sip and **S. M. Kuebler\***. "Bonding with Bithlo: Enhancing the quality of K-12 science education in an underprivileged community." 252nd Annual Meeting of the American Chemical Society (21 - 25 Aug. 2016, Philadelphia, PA), [international presentation](#).

15. N. P. Martinez, E. Bustamante, J. Pazos, J. Digaum, **S. M. Kuebler** and R. C. Rumpf\*. "Spatially-variant photonic crystals." Poster presented at the Southwest Emerging Technology Symposium (SETS) 2016 (8-9 April 2016, Wyndham El Paso Airport, El Paso, Texas).
16. J. L. Digaum, D. Batista, R. C. Rumpf and **S. M. Kuebler**\*. "Spatially-variant self-collimating photonic crystal for beam bending at telecommunications wavelengths." Poster presented and awarded 2nd prize for best student-poster at OIDA Workshop on Integrated Photonics for High Volume Packaging, Optical Society of America (20 Mar. 2016, Anaheim, CA.), **international presentation**.
17. R. Sharma, J. L. Digaum, R. C. Rumpf, S. Fathpour, J. D' Archangel, G. Boreman and **S. M. Kuebler**\*. "Beam bending in spatially variant photonic crystals (SVPCs) at telecommunication wavelengths." Contributed talk presented at Florida Inorganic and Materials Symposium (FIMS) (9-10 Oct. 2015, Univ. of Florida, Gainesville, FL).
18. C. M. Schwarz, C. N. Grabill, B. Gleason, S. Novak, A. M. Lewis, G. D. Richardson, C. Rivero-Baleine, K. A. Richardson, A. Pogrebnyakov, T. S. Mayer and **S. M. Kuebler**\*. "Fabrication and characterization of direct laser written 3D micro-structures in arsenic trisulfide chalcogenide glasses." International Conference and Trade fair on Laser Technology (20-23 July 2015, Orlando, FL, USA), OMICS International, **international presentation**.
19. C. M. Schwarz, C. N. Grabill, B. Gleason, G. D. Richardson, A. M. Lewis, S. Labh, C. Rivero-Baleine, K. A. Richardson, A. Pogrebnyakov, T. S. Mayer, **S. M. Kuebler**\*. "Properties of direct laser written nanostructures in multi-layered chalcogenide glasses." Poster presented at the American Ceramics Society Glass & Optical Materials Division and Deutsche Glastechnische Gesellschaft Joint Annual Meeting (ACERS GOMD-DGG, Miami, FL, 17-21 May 2015), **international presentation**.
20. J. L. Digaum, J. J. Pazos, R. C. Rumpf, J. Chiles, S. Fathpour, **S. M. Kuebler**\*. "Three-dimensional polarization-sensitive spatially-variant self-collimating photonic crystal for beam bending." Poster presented at Joint Symposium of the Florida Vacuum Society and the Florida Society of Microscopy (FLAVS/FSM 2015, Orlando, FL, 9 Mar. 2015).
21. C. M. Schwarz, C. N. Grabill, B. Gleason, G. D. Richardson, A. M. Lewis, S. Labh, C. Rivero-Baleine, K. A. Richardson, A. Pogrebnyakov, T. S. Mayer, **S. M. Kuebler**\*. "Properties of direct laser written nanostructures in multi-layered chalcogenide glasses." Poster presented at the 2015 Florida Chapter of the American Vacuum Society (FLAVS) and the Florida Society for Microscopy (FSM) joint Symposium (University of Central Florida, 9-10 Mar. 2015).
22. J. Digaum, **S. M. Kuebler**\*, J. Pazos, R. C. Rumpf, J. Chiles, and S. Fathpour. "Ninety-degree beam bending using a spatially variant self-collimating photonic crystal." Federation of Optics College and University Students (FOCUS) Latin America Conference, OSA and SPIE (Medellin, Colombia, 11-13 Nov. 2014). Student presenter Digaum was awarded 2nd place for Best Student Paper, **international presentation**.
23. **S. M. Kuebler**\*, H. E. Williams, D. J. Freppon, and R. C. Rumpf. "Fabrication of polymeric micro-photonic structures on the tip of optical fibers." Contributed paper presented by Kuebler at the Specialty Optical Fibers Symposium, OSA Advanced Photonics 2012 Congress (Optical Society of America: Colorado Springs, CO, 17-21 June 2012), **international presentation**.
24. C. J. Clukay, D. J. Freppon, C. N. Grabill, A. Dutta, H. Heinrich, A. Bhattacharya, and **S. M.**

- Kuebler\***. "Characterization of gold nanoparticles generated in situ on a negative-photoresist polymer substrate." Poster presented at the Beckman Scholars and Beckman Young Investigators Symposium (11-13 August 2011, Irvine, CA).
25. **S. Kuebler** and A. Bhattacharya\*. "Simulation studies of diffusion limited ballistic growth of particles from a surface." Paper presented at the American Physical Society March Meeting (21-25 March 2011, Dallas, TX, 2011), [international presentation](#).
  26. A. Dutta, B. Yuan, H. Heinrich\*, C. N. Grabill, **S. M. Kuebler**, and A. Bhattacharya. "Quantitative transmission electron microscopy of nanoparticles and thin film formation in electroless metallization of polymeric surfaces." Paper presented at the American Physical Society March Meeting (21-25 March 2011, Dallas, TX), [international presentation](#).
  27. A. Robledo, A. Bhattacharya, C. Grabill, **S. M. Kuebler**, A. Dutta, and H. Heinrich\*. "Simulation studies of electroless metal deposition using gold nano-clusters on polymeric surface." Paper presented at the Meeting of the American Physical Society (18 Feb. 2010, Portland, OR), Amer. Phys. Soc., Vol. 55, p. K1.00152, [international presentation](#).
  28. C. N. Grabill, H. E. Williams, D. Freppon, C. Clukay, **S. M. Kuebler\***, A. Bhattacharya, A. Dutta, and H. Heinrich. "Chemical and physical parameters for controlling the nanoscale morphology of electrolessly deposited metal." Contributed paper presented at Florida Inorganic and Materials Symposium (1-2 Oct. 2010, Univ. of Florida, Gainesville, FL).
  29. D. Freppon, C. Clukay, C. N. Grabill, A. Dutta, H. Heinrich, A. Robledo, A. Bhattacharya, and **S. M. Kuebler**. "Analysis of chemical systems used in controlled electroless deposition." Poster presented at NanoFlorida 2010 (25 Sept. 2010, UCF, Orlando, FL).
  30. C. J. Clukay, D. J. Freppon, C. N. Grabill, A. Dutta, H. Heinrich, A. Robledo, A. Bhattacharya, and **S. M. Kuebler**. "Studies toward the understanding and control of electroless deposition." Poster presented at the Florida Inorganic and Materials Symposium (1-2 Oct. 2010, Univ. of Florida, Gainesville, FL).
  31. K. E. Lynch, M. Melino, R. C. Rumpf, **S. M. Kuebler**. "Chemical System for Meta-Optical Fluorescence Probes." Paper presented at the Florida Inorganic and Materials Symposium (2-3 Oct. 2009, Univ. of Florida, Gainesville, FL).
  32. C. N. Grabill, H. E. Williams, **S. M. Kuebler**, A. Y. Quazzani, A. Bhattacharya, A. Dutta, H. Heinrich. "Chemical System for Fundamental Study of Electroless Metallization." Poster presented at the Florida Inorganic and Materials Symposium (2-3 Oct. 2009, Univ. of Florida, Gainesville, FL).
  33. **S. M. Kuebler**, C. J. Clukay, A. Dutta, C. N. Grabill, H. Heinrich and A. Bhattacharya. "Morphologies of an anisotropic diffusion limited growth model to study electroless deposition." Poster presented at the March 2009 meeting of the American Physical Society (13-17 April 2009, Boston, MA), [international presentation](#).
  34. C. N. Grabill, H. E. Williams, **S. M. Kuebler**, A. Y. Quazzani, A. Bhattacharya, A. Dutta, H. Heinrich. "Chemical System for Fundamental Study of Electroless Metallization." Poster presented at the annual meeting of the Florida Chapter of the American Vacuum Society (8-12 March 2009, Univ. of Central Florida, Orlando, FL).
  35. A. Y. Quazzani, A. Bhattacharya, H. Heinrich, A. Dutta, **S. M. Kuebler**, C. N. Grabill, H. E.

- Williams. "Simulation studies of electroless metal deposition on polymeric surfaces." Poster presented at the annual meeting of the Florida Chapter of the American Vacuum Society (8-12 March 2009, Univ. of Central Florida, Orlando, FL).
36. A. Dutta, H. Heinrich, C. N. Grabill, H. E. Williams, **S. M. Kuebler**, A. Y. Quazzani, A. Bhattacharya. "Transmission electron microscopy study of silver and gold nanoparticles on polymeric surfaces." Poster presented at the annual meeting of the Florida Chapter of the American Vacuum Society (8-12 March 2009, Univ. of Central Florida, Orlando, FL).
  37. **S. M. Kuebler**, H. E. Williams, M. A. Melino, T. G. Jabbour. "Method for preparing truly three-dimensional metallo-dielectric photonic crystals and related metamaterials." Paper EE14.4 presented at the spring 2009 international meeting of the Materials Research Society (13-17 April 2009, San Francisco, CA), [international presentation](#).
  38. C. N. Grabill, **S. M. Kuebler**, H. E. Williams, A. I. Ouazzani, A. Battacharya, H. Heinrich, A. Dutta. "Chemical and physical parameters for controlling the nanoscale morphology of electrolessly deposited metal". Paper D6.5 presented at the spring 2009 international meeting of the Materials Research Society (13-17 April 2009, San Francisco, CA), [international presentation](#).
  39. A. Y. Ouazzani, A. Bhattacharya, H. Heinrich, A. Dutta, **S. M. Kuebler**, C. N. Grabill, H. E. Williams. "Simulation studies of electroless metal deposition on polymeric surfaces." Poster presented at the Annual Meeting of the Florida Chapter of the American Vacuum Society (Univ. of Central Florida, Orlando, FL, 8-12 March 2009).
  40. H. E. Williams, **S. M. Kuebler**, M. A. Melino, T. G. Jabbour. "Preparation of functional three-dimensional nanophotonic materials and devices by multi-photon direct-laser writing in SU-8 on silicon". Poster BB6.16 presented at the spring 2009 international meeting of the Materials Research Society (13-17 April 2009, San Francisco, CA), [international presentation](#).
  41. **S. M. Kuebler**, Y.-S. Chen, and A. Tal. "Preparation of metallo-dielectric metamaterials." *Frontiers in Optics 08*: Rochester, NY, 19-24 Oct. 2008, [international presentation](#).
  42. Y.-S. Chen, H. E. Williams, A. Tal, **S. M. Kuebler**. "Routes to micron-scale three-dimensional metallodielectric photonic metamaterials." Paper presented at the Florida Inorganic Mini-Symposium (22 Sept. 2007, Univ. of Florida, Gainesville, FL).
  43. A. Dupuy, Y.-S. Chen, H. E. Williams, A. Tal, **S. M. Kuebler**. "Study of optical properties on silver coated SU-8 films pre and post Annealing." Poster presented at the Florida Inorganic Mini-Symposium (22 Sept. 2007, Univ. of Florida, Gainesville, FL).
  44. **S. M. Kuebler**, Y. S. Chen, and A. Tal. "Route to three-dimensional micron-scale meta-materials via multi-photon patterning." Paper presented at the Material Research Society Fall Meeting (26 Nov. - 1 Dec. 2006, Boston, MA), MRS, [international presentation](#).
  45. Y.-S. Chen, A. Tal, **S. M. Kuebler**. "Fabrication of three-dimensional micron-scale metallic-dielectric composites and functional devices." Paper presented at the Florida Inorganic Mini-Symposium (14 Oct. 2006, Univ. of Florida, Gainesville, FL).
  46. **S. M. Kuebler** and T. G. Jabbour. "Effect of radially symmetric phase masks on the focused point-spread-function under high numerical aperture." Lecture presented at the 231st National Meeting of the American Chemical Society (26-30 Mar. 2006, Atlanta, GA), [international presentation](#).
  47. **S. M. Kuebler** and T. G. Jabbour. "Approaches for improving the resolution of multi-photon three-

- dimensional microfabrication." Lecture presented at Photonics 2005: Nanophotonics, Biophotonics and Optoelectronic Polymer Systems (5-8 June 2005, Orlando, FL), [international presentation](#).
48. **S. M. Kuebler**. "Recent advances and new direction in multi-photon three-dimensional microfabrication." Lecture presented at the 20th Annual Organic Faculty of Florida Conference (5 Mar 2005, Orlando, FL).
  49. **T. G. Jabbour**, **F. Ruhge**, and **S. M. Kuebler**. "Optical means for improving the resolution of multi-photon three-dimensional lithographic microfabrication." Poster presented at the Florida Academy of Science 68th Annual Meeting (12-13 March 2004, University of Central Florida, Orlando, FL).
  50. T. Watanabe, N. Kimura, Y. Kazama, Y. Lu, F. Hasegawa, K. Totani, **S. Kuebler**, S. R. Marder, and J. W. Perry. "Microfabrication of hydrogel and liquid crystalline polymers by two-photon initiated polymerization." Lecture presented at the 7th International Conference on Organic Nonlinear Optics (4-8 Nov. 2003, Sorak, South Korea), [international presentation](#).
  51. S. Barlow, K. Braun, C. Grasso, M. Halik, **S. M. Kuebler**, S. R. Marder, J. W. Perry, S. J. Pond, M. Rumi, W. Wenseleers, and W. Zhou. "Advances in structure-property relationships for multiphoton-absorbing materials." Lecture presented at the SPIE International Symposium on Optical Science and Technology (2002, Seattle, WA), [international presentation](#).
  52. W. Zhou, **S. M. Kuebler**, K. L. Braun, T. Yu, J. K. Cammack, J. Wang, N. Tucker, S. Barlow, C. K. Ober, J. W. Perry, and S. R. Marder. "Efficient two-photon photoacids and radical initiators and their application to 3D microfabrication." Lecture presented at the XIXth IUPAC Symposium on Photochemistry (17-19 July 2002, Budapest, Hungary), [international presentation](#).
  53. T. Yu, C. K. Ober, **S. M. Kuebler**, W. Zhou, S. R. Marder and J. W. Perry. "Two-photon lithography for three-dimensional microfabrication." Paper presented at the American Chemical Society Annual Meeting (Boston, MA, 2002), [international presentation](#).
  54. J. W. Perry, C. A. Bauer, K. Braun, **S. M. Kuebler**, S. R. Marder, C. K. Ober, F. Stellacci, T. Watanabe, T. Yu and W. Zhou. "Three-dimensional microfabrication using two-photon activated chemistry." Lecture presented at the 5th AIST International Symposium on Photoreaction Control and Photofunctional Materials (Tsukuba, Japan, 18-20 March 2002), [international presentation](#).
  55. **S. M. Kuebler**, M. Rumi, K. L. Braun, S. R. Marder, J. W. Perry and T. Watanabe. "Controlling resolution in three-dimensional microfabrication by two-photon initiated polymerization." Poster presented at the 6th International Conference on Organic Nonlinear Optics (Tucson, AZ, 2001), [international presentation](#).
  56. F. Stellacci, C. A. Bauer, T. Meyer-Friedrichsen, W. Wenseleers, V. Alain, **S. M. Kuebler**, S. J. K. Pond, Y. Zhang, S. R. Marder and J. W. Perry. "Laser and electron-beam induced growth of nanoparticles for 2 & 3D metal patterning." Lecture presented at the 6th International Conference on Organic Nonlinear Optics (Tucson, AZ, 2001), [international presentation](#).
  57. F. Stellacci, C. A. Bauer, T. Meyer-Friedrichsen, W. Wenseleers, V. Alain, **S. M. Kuebler**, S. J. K. Pond, Y. Zhang, S. R. Marder and J. W. Perry." Photochemically induced growth of nanoparticles for 2 & 3D metal patterning." Poster presented at the 6th International Conference on Organic Nonlinear Optics (Tucson, AZ, 2001), [international presentation](#).
  58. W. Zhou, K. L. Braun, **S. M. Kuebler**, J. W. Perry, S. R. Marder, T. Yu and C. K. Ober. "Efficient two-photon photoacids." Poster presented at the 6th International Conference on Organic Nonlinear

- Optics (Tucson, AZ, 2001), [international presentation](#).
59. T. Watanabe, M. Akiyama, F. Hasegawa, K. Totani, **S. Kuebler**, F. Stellacci, W. Wenseleers, K. Braun, M. Rumi, S. R. Marder and J. W. Perry. "Three-dimensional microfabrication of soft materials by two-photon excitation." Poster presented at the 6th International Conference on Organic Nonlinear Optics (Tucson, AZ, 2001), [international presentation](#).
  60. S. J. K. Pond, M. Rumi, T. C. Parker, **S. M. Kuebler**, J.-L. Brédas, S. R. Marder, J. W. Perry, M. D. Levin, M. W. Day and D. Beljonne. "Two-photon spectroscopy of cyano-substituted *bis*(styryl)benzene compounds." Poster presented at the 6th International Conference on Organic Nonlinear Optics (Tucson, AZ, 2001), [international presentation](#).
  61. **S. M. Kuebler**, W. Zhou, D. Carrig, J. K. Cammack, S. R. Marder and J. W. Perry. "Efficient two-photon initiators for three-dimensional microfabrication." Lecture presented by Kuebler at 43rd Rocky Mountain Conference on Analytical Chemistry (Denver, CO, 2001).
  62. C. Bauer, K. Braun, D. Carrig, **S. M. Kuebler**, S. R. Marder, T. Meyer-Friedrichsen, C. K. Ober, J. W. Perry, S. K. Pond, M. Rumi, F. Stellacci, W. Wenseleers, T. Yu, Y. Zhang and W. Zhou. "The chemistry of two-photon absorbing materials." Lecture presented at the fall meeting of the Material Research Society (Boston, MA, 2001), [international presentation](#).
  63. T. Yu, C. K. Ober, **S. M. Kuebler**, W. Zhou, S. R. Marder and J. W. Perry. "3-D microfabrication in a chemically amplified positive resist." Poster presented at the fall meeting of the Material Research Society (Boston, MA, 2001), [international presentation](#).
  64. J. W. Perry, C. Bauer, K. Braun, K. Cammack, **S. M. Kuebler**, S. R. Marder, T. Meyer-Friedrichsen, M. Rumi, F. Stellacci, T. Watanabe, W. Wenseleers and W. Zhou. "Two-photon 3D microfabrication of polymeric and metallic structures." Paper presented at the Optical Society of America Annual Meeting (Long Beach, CA, 2001), [international presentation](#).
  65. J. W. Perry, S. R. Marder, S. Pond, C. Bauer, K. Braun, M. Rumi, **S. M. Kuebler**, W. Wenseleers, F. Stellacci, K. Mohanalingam, W. Zhou, T. Meyer-Friedrichsen, M. Halik, C. Grasso, V. Alain, T. Parker, L. Dollinger and Y.-D. Zhang. "Structure-property relationships for two-photon absorbing molecules." Poster presented at the 14th Biennial Carl S. Marvel Symposium "Supramolecular Materials" (Tucson, AZ, 11-13 Mar. 2001).
  66. J. W. Perry, C. Bauer, K. Cammack, **S. M. Kuebler**, S. R. Marder, T. Meyer-Friedrichsen, M. Rumi, F. Stellacci, T. Watanabe, W. Wenseleers, W. Zhou, T. Yu and C. Ober. "Two-photon 3D microfabrication of polymers and metals." Lecture presented at the Conference on Novel Optical Materials and Applications (Cetraro, Italy, 2001), [international presentation](#).
  67. W. Zhou, **S. M. Kuebler**, S. R. Marder and J. W. Perry. "Donor-acceptor linked photoacid generators for microfabrication applications." Lecture presented at the 221st ACS National Meeting (San Diego, CA, 1-5 April 2001), [international presentation](#).
  68. S. R. Marder, V. Alain, J.-L. Bredas, K. Braun, J. K. Cammack, M. Halik, **S. Kuebler**, J. W. Perry, M. Rumi, W. Wenseleers, W. Zhou, B. Cumpston and M. Lipson. "Applications of molecules with large two-photon absorption cross sections to microfabrication." Lecture presented at the 221st ACS National Meeting (San Diego, CA, 1-5 April 2001), [international presentation](#).
  69. J. W. Perry, A. P. Ananthavel, G. Duerksen, J. Ehrlich, A. A. Heikal, K. Mansour, K. Mohanalingam, **S. M. Kuebler**, H. Röckel, S. R. Marder, T. Kosa and P. Palffy-Muhoray.



- "Nonlinear absorption and two-photon charge carrier generation in liquid crystal guest-host systems." Lecture presented at the Second International Conference on Optical Power Limiting (Venice, Italy, 2-5 July 2000), [international presentation](#).
70. J. W. Perry, S. P. Ananthavel, **S. M. Kuebler**, S. R. Marder, M. Rumi, F. Stellacci, B. H. Cumpston, A. A. Heikal, J. E. Ehrlich, L. L. Erskine, M. Lipson, D. McCord-Maughon and H. Röckel. "Optimizing multiphoton chemistry for 3D optical processes and technology." Lecture presented at the Conference on Lasers and Electro-optics/Quantum Electronics and Laser Science Conference (San Francisco, CA, 2000), [international presentation](#).
  71. J. W. Perry, S. P. Ananthavel, **S. M. Kuebler**, S. R. Marder, M. Rumi, D. L. Dyer, M. D. Levin, D. McCord-Maughon, H. Röckel, B. H. Cumpston, A. Heikal, J. E. Ehrlich, D. Beljonne, T. Kogej and J.-L. Bredas. "Conjugated molecules with large two-photon cross sections." Lecture presented at the 218th ACS National Meeting (New Orleans, LA, 22-26 Aug. 1999), [international presentation](#).
  72. S. Ananthavel, M. Rumi, **S. Kuebler**, J. W. Perry, S. Thayumanavan, S. R. Marder, K. Mansour, J. E. Ehrlich, S. Barlow and H. Röckel. "Two-photon absorbing chromophores for broadband optical limiting." Poster presented at the Conference on Lasers and Electro-Optics (Baltimore, MD, 1999), [international presentation](#).
  73. **S. M. Kuebler**, S. P. Ananthavel, M. Rumi, S. R. Marder, J. W. Perry, S. Barlow, B. H. Cumpston, D. L. Dyer, J. E. Ehrlich, L. L. Erskine, A. A. Heikal, I.-Y. S. Lee, D. McCord-Maughon, J. Qin, H. Röckel and W.-L. Wu. "Two-photon polymerization initiators for efficient three-dimensional optical data storage and microfabrication." Lecture presented by Kuebler at the Conference on Lasers and Electro-Optics (Baltimore, MD, 1999), [international presentation](#).
  74. S. Ananthavel, M. Rumi, **S. Kuebler**, J. W. Perry, S. Thayumanavan, S. R. Marder, K. Mansour, J. E. Ehrlich, S. Barlow and H. Röckel. "Two-photon absorbing chromophores for broadband optical limiting." Poster presented at the Conference on Lasers and Electro-Optics (Baltimore, MD, 1999), [international presentation](#).
  75. S. Barlow, B. H. Cumpston, G. Duerkson, J. Y. Fu, J. E. Ehrlich, A. A. Heikal, T. Kosa, **S. M. Kuebler**, I. Y. S. Lee, S. G. Lukishova, K. Mansour, S. R. Marder, D. McCord-Maughon, P. Palffy-Muhoray, J. W. Perry, H. Röckel, M. Rumi, G. Subramanian, B. Taheri, S. Thayumanavan and X. L. Wu. "Two-photon absorbing materials for optical power limiting and imaging." Lecture presented at the SPIE International Symposium on Optical Science, Engineering, and Instrumentation: Nonlinear Optical Liquids for Power Limiting and Imaging (San Diego, CA, 1998), [international presentation](#).
  76. M. Rumi, J. E. Ehrlich, B. H. Cumpston, **S. M. Kuebler**, A. A. Heikal, J. Y. Fu, S. Barlow, M. D. Levin, L. Erskine, D. McCord-Maughon, H. Röckel, S. Thayumanavan, S. R. Marder, J. W. Perry, T. Kogej, D. Beljonne, J. Brédas, M. Albota, S. Hess, C. Xu and W. W. Webb. "Structure/property relationships and applications of two-photon absorbing molecules." Lecture presented at the SPIE International Symposium on Optical Science, Engineering, and Instrumentation: Third-Order Nonlinear Optical Materials (San Diego, CA, 1998), [international presentation](#).
  77. **S. M. Kuebler** and R. G. Denning. "Time-resolved degenerate four-wave mixing studies of a zinc porphyrin polymer at 1064 nm." Poster presented by Kuebler at the Dielectric Society Annual Conference (Canterbury, England, 1996), [international presentation](#).
  78. **S. M. Kuebler** and R. G. Denning. "50 ps single-pulse degenerate four-wave mixing at  $\lambda =$

- 1064 nm." Lecture presented at the European Commission: Human Capital Mobility Network for Nonlinear Optical Materials (Copenhagen, Denmark, 1995), [international presentation](#).
79. **S. M. Kuebler** and R. G. Denning. "Population grating effects in studies of  $\text{NiS}_4\text{C}_4\text{Ph}_2\text{Bu}_2$  by degenerate four-wave mixing (DFWM)." Poster presented by Kuebler at the European Commission: Human Capital Mobility Network for Nonlinear Optical Materials (Copenhagen, Denmark, 1995), [international presentation](#).
  80. **S. M. Kuebler** and R. G. Denning. "Measurement of the third-order nonlinear optical polarisability by degenerate four-wave mixing." Lecture presented by Kuebler at the Solid State Seminars Series, Inorganic Chemistry Laboratory, University of Oxford (Oxford, UK, 1993).
  81. **S. M. Kuebler** and R. G. Denning. "Measurement of the third-order nonlinear optical polarisability by forward scatter degenerate four-wave mixing." Poster presented by Kuebler at the SERC 21st Century Materials Initiative Grant Holders Workshop (UK, 1992), [international presentation](#).

#### **OTHER WORKS** (*not peer-reviewed*)

1. **S. M. Kuebler** and J. Beever. "Robin Hood had it easy – The real world is not so straightforward." *UCF Forum* **2019**, 24 July 2019.

Article: <https://stars.library.ucf.edu/ucf-forum/365/>.

This article was also carried as:

1) S. M. Kuebler, J. Beever, "Robin Hood had it easy – The real world is not so straightforward." SeminoleBusiness.org, Seminole County Regional Chamber of Commerce (24 July 2019, <https://business.seminolebusiness.org/news/details/robin-hood-had-it-easy-the-real-world-is-not-so-straightforward>); and

2) S. M. Kuebler, J. Beever, "Robin Hood had it easy – The real world is not so straightforward." Brevard Business News Vol. 37 No. 32, p. 4 (12 Aug. 2019, [BrevardBusinessNews.com](http://BrevardBusinessNews.com)).

2. **S. M. Kuebler** and J. Beever. "Well, it's not illegal!" *UCF Forum* **2019**, 22 May 2019.

Article: <https://www.ucf.edu/news/well-not-illegal/>.

Podcast: <https://soundcloud.com/user-939830138/ucf-forum-stephen-m-kuebler-and-jonathan-beever-52619>.

This article was also carried as:

1) S. M. Kuebler, J. Beever, "Well, It's Not Illegal!" Brevard Business News, Vol. 37 No. 22, p. 4 (10 June 2019, [BrevardBusinessNews.com](http://BrevardBusinessNews.com)); and

2) S. M. Kuebler, J. Beever, "Well, It's Not Illegal!" The Apopka Voice, 30 May 2019 (<https://theapokkavoice.com/well-its-not-illegal/>).

3. **S. M. Kuebler** and J. Beever. "Internet has helped spread information, but not necessarily knowledge." *UCF Forum* **2019**, 20 Mar. 2019.

Article: <https://stars.library.ucf.edu/ucf-forum/347/>.

Podcast: <https://soundcloud.com/user-939830138/ucf-forum-stephen-m-kuebler-and-jonathan-beever-32419>.

This article was also carried as:

- 1) S. M. Kuebler, J. Beever, "The internet has helped to spread information, but not necessarily knowledge," *The Apopka Voice* (21 Mar. 2019, TheApopkaVoice.com); and
- 2) S. M. Kuebler, J. Beever, "The internet has helped spread information, but not necessarily knowledge?" *Brevard Business News*, Vol. 37 No. 14, p. 4 (8 April 2019, BrevardBusinessNews.com).
4. **S. M. Kuebler** and J. Beever, radio interview with Marcus Smith, host of "Constant Wonder," BYU Radio, episode "Digital Storytelling, Industrial Musicals, Robot Ethics, Black History," originally aired 20 Feb. 2019, beginning at time 49 min 03 sec (<https://www.byuradio.org/episode/c9515db2-96ba-4717-ae43-b037bcc69f47/constant-wonder-digital-storytelling-industrial-musicals-robot-ethics-black-history>).
5. **S. M. Kuebler** and J. Beever. "Whom should self-driving cars be programmed to protect?" *UCF Forum* **2019**, 16 Jan. 2019.  
 Article: <https://stars.library.ucf.edu/ucf-forum/339/>.  
 Pod-cast: <https://soundcloud.com/user-939830138/ucf-forum-stephen-m-kuebler-and-jonathan-beever-120>.
- This article was also carried as:
- 1) S. M. Kuebler and J. Beever, "Who in society should these new self-driving cars be programmed to protect?" *Brevard Business News*, 4 Feb. 2019, p. 4 (BrevardBusinessNews.com);
- 2) S. M. Kuebler and J. Beever, "UCF Forum: Who should self-driving cars be programmed to protect?" *Seminole County Regional Chamber of Commerce*, January 16, 2019, <https://www.seminolebusiness.org/news/details/ucf-forum-who-should-self-driving-cars-be-programmed-to-protect>.
6. **S. M. Kuebler** and J. Beever. "Following rules and doing the right thing aren't necessarily the same." *UCF Forum* **2018**, 14 Nov. 2018.  
 Article: <https://stars.library.ucf.edu/ucf-forum/329/>.  
 Pod-cast: <https://soundcloud.com/user-939830138/ucf-forum-stephen-kuebler-and-jonathan-beever>.
- This article was also carried as S. M. Kuebler, J. Beever, "Following all the rules and doing the right thing aren't necessarily the same." *Brevard Business News*, 3 Dec. 2018, p. 4 (BrevardBusinessNews.com).
7. **S. M. Kuebler** and J. Beever. "Can't we make better decisions to ensure ethical outcomes?" *UCF Forum* **2018**, 9. Sept. 2018.  
 Article: <https://stars.library.ucf.edu/ucf-forum/321/>.  
 Pod-cast: <https://soundcloud.com/user-939830138/stephen-kuebler-and-jonathan-beever>.
8. **S. M. Kuebler**. "Should faculty focus on being public intellectuals, or creating them?", in *UCF Faculty Focus*, D. S. Murphree, Ed. Karen L. Smith Faculty Center for Teaching and Learning, UCF: Orlando, FL, 2015, Vol. 14, pp. 2-4, invited paper.

## MENTEE TRAINING

### FACULTY MENTORED (*\*indicates a member of an underrepresented group*)

1. Dr. Matthieu Baudelet Asst. Prof. Chem. & Forensic Sci., UCF 2018 - present
2. Dr. Denisia Popolan-Vaida\* Asst. Prof. Chem., UCF 2018 - present
3. Dr. Jonathan Beaver Asst. Prof. Philosophy 2017 - present

### VISITING SCHOLARS MENTORED (*\*indicates a member of an underrepresented group*)

1. Tatiana Rios-Carvajal\* Univ. of Columbia, MS in Chem. 2012/2013
2. Dr. Ahmed Shebl Ain Shams University, Egypt July 2014 - Oct. 2014
3. Marc Gauci University of Nantes, France Summer 2019

### POST-DOCTORAL RESEARCHERS TRAINED (*\*member of an underrepresented group*)

#### *3 post-doctoral scholars trained in total.*

1. Dr. Casey Schwarz\* PhD., UCF 2013 - 2016  
Now a tenure-earning Asst. Prof. of Physics at Ursinus College (Collegeville, PA)
2. Dr. Ananthakrishnan Narayanan PhD., Auburn 2010 - 2011  
Now at Cree, Inc., Durham, NC
3. Dr. Ivan Divliansky PhD, Penn. State 2004 - 2005  
Now a Research Scientist, CREOL, UCF.

### GRADUATE RESEARCHERS TRAINED (*\*member of an underrepresented group*)

#### *5 PhDs and 9 MS students graduated.*

#### *18 graduate students trained in total.*

1. Pooria Golvari PhD in chemistry 2018 Current member  
- ORC Graduate Fellow
2. Chun Xia PhD candidate in Optics 2017 Current member  
- Doctoral Research Support Award Fall 2018  
(Coll. Graduate Studies, UCF; \$1,250 for travel).  
- Passed CREOL Qualifier Exam Spr. 2018  
- ORC Graduate Fellow
3. Geng Yang MS in Optics & Photonics 2017 Current member
4. Rashi Sharma\* PhD in Chem. Grad. fall 2018 UCF Postdoc  
MS in Chemistry Grad. spr. 2016  
- Outstanding Graduate Teaching Assistant (UCF Chem., May 2017)  
- Green Chemistry NSF travel Fellowship (Apr. 2013)  
- Postdoctoral scholar, UCF (CREOL, Richardson Group, 2019)
5. Chris Grabill PhD in Chem. Grad. spr. 2018 AECOM  
MS in Chemistry Grad. spr. 2012  
- Research Excellence Fellowship (UCF, Aug. 2013)  
- Outstanding Graduate Teaching Assistant (UCF Chem., May 2012)  
- Outstanding Graduate Seminar (UCF Chem., May 2011)

- Senior Chemist/Chemical Sampling & Analysis Supervisor  
(working on site at KSC/NASA, 2018)
- 6. Ali Mesbahi                      PhD candidate in Chem.                      2016 - 2017  
- Continuing toward PhD. in Chemistry at UCF
- 7. Greg Miller                      PhD candidate in Chem.                      2016 - 2017  
- Continuing toward PhD. in Chemistry at UCF  
- Uknighthed Chemistry Grad. Student Assoc.  
Member of the Year (UCF, spring 2017)
- 8. Dr. Jennefir Digaum              PhD in Optics                      Grad. spr. 2016              Micron, Inc.  
- 2nd Place, Best Poster (20 Mar. 2015, OIDA Workshop  
on Integrated Photonics for High Volume Packaging)  
- 2nd Place, Best Paper, Federation of Optics College  
and University Students (FOCUS) Latin America Conference,  
OSA and SPIE (11-13 Nov. 2014, Medellin, Colombia)  
- 2nd Place for Best Poster (5 Apr. 2015, UCF Grad Res. Forum)
- 9. Dr. Henry Williams\*              PhD in Chemistry                      Grad. fall 2013              NanoSpective,  
Orlando, FL
- 10. Ali Ozcan                      MS in Chemistry                      Grad. spr. 2013  
- PhD. cand. at UCF
- 11. Dr. Zhenyue Luo              PhD candidate in Optics                      2010 - 2012              Apple
- 12. Kristen Lynch\*              MS in Chemistry                      Grad. fall 2011              Lockheed-Martin  
MS Mater. Sci. Eng.                      Grad. fall 2012
- 13. Rahul Hegishte              MS in Industrial Chemistry                      Grad. spr. 2011              Univ. Pune
- 14. Marco A. Melino              MS in Optics                      Grad. spr. 2010              DomesticTree.com
- 15. Dr. Toufic G. Jabbour              PhD in Optics                      Grad. fall 2009              Zeiss
- 16. Amir Tal                      MS in Optics                      Grad. sum. 2007              Jenoptik
- 17. Dr. Yun-Sheng Chen              MS in Optics                      Grad. spr. 2008              Stanford
- 18. Dr. Yigit Ozan Yilmaz              MS in Optics                      Grad. fall 2006              Intel

**UNDERGRADUATES RESEARCHERS TRAINED** (*\*member of an underrepresented group*)

***52 undergraduate researchers trained in total.***

1. Jordan Collins                      BS, Comp. Sci.                      2018 - present
2. Grant Biehler                      BS in Chem.                      Sum 2018 - present
3. Alex Cockerham                      BS in Chem. and Biomolec. Sci.                      Fall 2017 - present  
- Burnett Research Scholar award, UCF (fall 2017)
4. Hannah West\*                      BS in Optics, UCF                      Fall 2017 - present  
- Internship at Harris Corp. (summer 2018)
5. Mark Gaspich                      BS in Chemistry, UCF                      Fall 2017 - present
6. Rohit Karnati                      BS in Chemistry, UCF                      Fall 2017 - Fall 2018
7. Christopher Kosan                      BS in Mech. Eng., UCF                      Fall 2016 - Spring 2018
8. Nicholas Kosan                      BS in Optics, UCF                      Fall 2015 - Spring 2018  
- NSF-REU at Univ. of Arizona (summer 2018)  
- Astronaut Scholarship, UCF (2017)  
- Distinguished Undergraduate Research Award, UCF (Feb. 2017)  
- RAMP fellowship, UCF (fall 2016)

	- Princeton PhD in Biomed. Eng. (fall 2019)	
9.	Jordyn White* BS in Chemistry, UCF	Fall 2017 - Spring 2018
10.	Robert Katims BS in Chemistry, UCF	Spr 2015 - Spr 2017
11.	Jayk Barker* BS in Mech. Eng.	Sum 2015 - Sum 2016
12.	Janzen Fallgren BS in Chemistry, UCF	Sum 2016 - Fall 2016
13.	Ryan Sapia BS in Chemistry, UCF	Sum 2015 - Sum 2016
	- RAMP fellowship, UCF (fall 2015)	
	- PhD candidate, UCF Chemistry (fall 2016)	
14.	Evan Duga BS in Chem., UCF	Spring 2017
15.	Daniel Batista* BS in Optics, UCF	Fall 2014 - fall 2015
	- Burnett Research Scholars Fellowship, UCF (summer 2015)	
16.	Lauren Gandy* BS in Forensic Science	2013 - 2016
	BA in French	
	- Order of Pegasus (UCF's highest award to students, 2017)	
	- President's Advisory Council, UCF (2016)	
	- Most Outstanding Service Award, UCF Chemistry (2016)	
	- Outstanding Four-Year College Student, Orlando Chapter-ACS (Dec. 2015)	
	- ACS@UCF president (2015/2016) and vice-president (2014/2015)	
17.	Alec Brown BS in Physics, UCF	Summer 2015
18.	Christa Deeks* BS in Chemistry, UCF	Summer 2015
19.	Elizabeth Isaac* BS in Chemistry, Otterbein College	Summer 2015
20.	Shreya Labh* BS in Chemistry, UCF	2014 - 2015
	- SURF, Summer Undergraduate Research Fellowship, UCF (2014)	
21.	Jeremy Thomas BS in Physics, Andrews Univ.	Summer 2014
22.	Anna Lewis* BS in Chemistry, UCF	2013 - 2014
	- RISE Summer Research Fellowship, German Academic Exchange Service (2014)	
	- Nuclear and Radiochemistry Summer School Fellowship, ACS & Dept. of Energy (2014)	
	- Employed after graduation by UCF start-up Flex Optronix.	
23.	Gerald Richardson BS in Molec/Micro Biology, UCF	2013 - 2015
	- Order of Pegasus (UCF's highest award to students, 2015)	
	- Admitted to Univ. of Florida Medical School (2015)	
	- Harvard Graduate School of Education (2017)	
24.	Gabriel Padilla* BS in Chemistry, UCF	2012 - 2014
	- McNair Scholar, UCF (2013)	
25.	Daniel Freppon BS in Chemistry, UCF	2008 - 2013
26.	Drew Hanson BS in Chemistry, UCF	2012 - 2013
27.	Jose Jerez* BS Engineering, UCF	2013
	(Mentee, UCF LEARN program)	
28.	Dalibor Todorovski BS Engineering, UCF	2013
	(Mentee, UCF LEARN program)	
29.	Adrian Tatulian BS in Physics, UCF	2013
30.	Landon Meahl BS in Physics	2012
31.	Kaley Wilburn* BS in Microbiol/Molec. Biol.	2012
32.	Michelle Hettinger* BS in Chemistry, UCF	2011

33. Chris Clukay	BS in Chemistry, UCF	2010 - 2012
- NSF Graduate Research Fellowship (2015)		
- Best Student award, American Institute of Chemistry (2014)		
- 3rd Place for Best Poster, Florida Inorganic and Materials Symposium (2010)		
34. Suliman Ayad	BS in Chemistry, UCF	2011
35. Dale Karas	REU in Optics	Summer 2011
36. Chris Grabill	BS in Chemistry, UCF	2008 - 2009
- Outstanding Undergraduate Seminar (UCF Chem., May 2009)		
- Second place, Showcase of Undergraduate Research Excellence (UCF, April 2009)		
- Best Undergraduate Poster Presentation, Annual Meeting of the Florida Chapter of the American Vacuum Society (FLAVS, Mar. 2009)		
- Physical Chemistry Award (UCF Chem., May 2008)		
37. Amanda Dupuy*	BS in Forensic Science, UCF	2008 - 2009
- RAMP fellowship, UCF (2008)		
38. Craig Ament	BS in Physics, UCF	2008 - 2010
- UCF SMART Fellowship (2008)		
39. Michael Petrovich	BS in Computer Science, UCF	2006 - 2007
40. Gregory Weaver	BS in Computer Science, UCF	2005 - 2006
41. David "Britt" Torrance	BS in Physics, UCF	2004 - 2006
- RAMP fellowship, UCF (2005)		
42. Julien Fourez	CREOL-Intl. REU	Summer 2005
43. Meagan Giesler*	CREOL-REU	Summer 2005
44. Hiram Gonzales*	Nano/Engineering-REU	Summer 2005
45. Luciana Xavier*	BS in Physics, UCF	Summer 2005
46. Janneth Oleas*	NIH-Bridge Program	Summer 2005
47. Caleb Parnell-Lampen	NSF-REU at CREOL	Summer 2004
48. Forrest Ruhge	BS in Physics, UCF	Spring 2004
49. Amy Thompson*	NSF-REU at CREOL	Summer 2004
50. Daniel L. Huffman	BS in Chemistry	Summer 2004
51. Hubert P. Seigneur	BSE Comp. Eng., UCF	Summer 2004
52. Elbony Jones*	BS chem., UCF, 2004	Spring 2004

#### **HIGH SCHOOL STUDENTS TRAINED** (\*member of an underrepresented group)

1. Casey Sun*	Hagerty High School, Oviedo, FL	Summer 2019
2. Trinity Johnson*	Circle Christian School, Winter Pk, FL	Summer 2018
3. Joel Perez*	Hagerty High School, Oviedo, FL	Summer 2017
4. Jonathan Sepulveda*	Hagerty High School, Oviedo, FL	2016 - 2017
5. Aadit Vyas*	Hagerty High School, Oviedo, FL	2014 - 2016
- Outstanding High School Chemistry Student, Orlando ACS (2014)		
- Went to <u>Yale</u> for undergraduate study (2016)		
6. Jayk Barker*	Hagerty High School, Oviedo, FL	Summer 2015
7. Johl Kapil	Seminole High School, Sanford, FL	Summer 2015
8. Amy-Grace Pothen*	Hagerty High School, Oviedo, FL	Summer 2013
9. Samantha Collins*	Hagerty High School, Oviedo, FL	Summer 2012
10. Vivek Kumar	Hagerty High School, Oviedo, FL	Summer 2011

- Went to Univ. Florida for MBA
- 11. Steven Wang Seminole High School, Orlando, FL Summer 2010
- Went to Vanderbilt for undergraduate study (2011)

## TEACHING

### DISSERTATION and SENIOR-PROJECT COMMITTEE SERVICE

#### *70 dissertation/senior project committees in total.*

- |                             |   |                                      |
|-----------------------------|---|--------------------------------------|
| 1. Russell Cox              | BS Chemistry<br>Honors in the Major         | Advisor: Dr. Shengli Zou             |
| 2. Chenyi Zhang             | PhD in Optics                               | Advisor: Dr. Ryan Gelfand            |
| 3. Arifur Rahaman           | PhD in Optics                               | Advisor: Dr. Xiaoming Yu             |
| 4. Ricardo Lovato           | PhD in EE                                   | Advisor: Dr. Xun Gong                |
| 5. Kaitlin Turner           | BS in Chemistry                             | Advisor: Geng Yang                   |
| 6. Zarina Marie Balde       | BS in Biomolec. Sci.<br>Honors in the Major | Advisor: Dr. Debopam Chakrabarti     |
| 7. Shima Gholam Mirzaei     | PhD in Physics                              | Advisor: Dr. Michael Chini           |
| 8. Saad Mehmood             | PhD in Physics                              | Advisor: Luca Argenti                |
| 9. Ryan Heitz               | BS Comp. Eng.                               | Sr. Design Project Team, spring 2019 |
| 10. Sandy Cline             | BS in Optics                                | Sr. Design Project Team, spring 2019 |
| 11. Brian Ascencio`         | BS Elec. and Comp. Eng.                     | Sr. Design Project Team, spring 2019 |
| 12. Shane Zweibach          | BS Comp. Eng.                               | Sr. Design Project Team, spring 2019 |
| 13. Haiheng Ye              | PhD in Chemistry, spring 2019               | Advisor: Dr. Xiaohu Xia              |
| 14. Michael Trampler        | PhD in EE, summer 2019                      | Advisor: Dr. Xun Gong                |
| 15. Wei Ouyang              | PhD in EE, summer 2019                      | Advisor: Dr. Xun Gong                |
| 16. Mahmoud Shirazi         | PhD in EE, summer 2018                      | Advisor: Dr. Xun Gong                |
| 17. Mathew Logan            | PhD in Chem., summer 2018                   | Advisor: Dr. Fernando Uribe-Romo     |
| 18. Alexander York          | PhD in Math, summer 2018                    | Advisor: Dr. Joseph Brennan          |
| 19. Sam Benjamin            | B.S. Optics                                 | Sr. Design Project Team, fall 2017   |
| 20. Isaias Velez            | B.S. Elec. Eng.                             | Sr. Design Project Team, fall 2017   |
| 21. Sommer Hilliard         | B.S. Elec. Eng.                             | Sr. Design Project Team, fall 2017   |
| 22. Cary McEwan             | B.S. Comp. Sci.                             | Sr. Design Project Team, fall 2017   |
| 23. Benjamin Stuart         | B.S. Optics                                 | Sr. Design Project Team, fall 2017   |
| 24. Garrett Bennett         | B.S. Optics                                 | Sr. Design Project Team, fall 2017   |
| 25. George Salinas          | B.S. Comp. Sci.                             | Sr. Design Project Team, fall 2017   |
| 26. Zhitao Chen             | B.S. Elec. Eng.                             | Sr. Design Project Team, fall 2017   |
| 27. Anthony J. Riggins      | BS in Optics                                | Sr. Design Project Team, summer 2017 |
| 28. Jesus M. Marcano        | BS in Elec. Eng.                            | Sr. Design Project Team, summer 2017 |
| 29. Jack A. Fenton          | BS in Elec. Eng.                            | Sr. Design Project Team, summer 2017 |
| 30. Melissa J. Wetzal       | BS in Comp. Eng.                            | Sr. Design Project Team, summer 2017 |
| 31. Marielena Burdge        | BS in Optics                                | Sr. Design Project Team, summer 2017 |
| 32. Mahmoud Elhady          | BS in Elec. Eng.                            | Sr. Design Project Team, summer 2017 |
| 33. James Tavit             | BS in Civil Eng.                            | Sr. Design Project Team, summer 2017 |
| 34. Juan Palomino           | BS in Civil Eng.                            | Sr. Design Project Team, summer 2017 |
| 35. Ms. Tianjiao Li         | PhD in EE, spring 2017                      | Advisor: Dr. Xun Gong                |
| 36. Mr. Amjad Aman          | PhD in MAE, fall 2016                       | Advisor: Dr. Nina Orlovskaya         |
| 37. Mr. Anthony Terracciano | PhD in MAE, fall 2016                       | Advisor: Dr. Nina Orlovskaya         |
| 38. Mr. Antoine Lepicard    | PhD in Optics, fall 2016                    | Advisor: Dr. Kathleen Richardson     |
| 39. Sean Crystal            | BS in Optics                                | Sr. Design Project Team, summer 2016 |



40. Jason Owens	BS in Optics	Sr. Design Project Team, summer 2016
41. Mr. Richard Stadelmann	PhD in MAE, fall 2015	Advisor: Dr. Nina Orlovskaya
42. Miss Warinya Chemnasiri	PhD in Chemistry, fall 2015	Advisor: Dr. Florencio Hernandez
43. Mr. Chatdanai Lumdee	PhD in Optics, fall 2015	Advisor: Dr. Pieter Kik
44. Mr. Carlos Diaz	PhD in Chem., summer 2015	Advisor: Dr. Florencio Hernandez
45. Miss Sihui He	PhD in Optics, summer 2015	Advisor: Dr. Shin-Tson Wu
46. Mr. Coleman Caricker	BS in Physics, spring 2015	Advisor: Dr. Alfons Schulte
47. Mr. Kyle Thurmond	BS in Eng, fall 2014	Advisor: Dr. Subith S. Vasu
48. Mr. Owen M. Pryor	BS in Eng, fall 2014	Advisor: Dr. Subith S. Vasu
49. Dr. Seyfollah Toroghi	PhD in Optics, summer 2014	Advisor: Dr. Pieter Kik
50. Dr. Aniruddha Dutta	PhD, Physics, spring 2014	Advisor: Dr. Helge Heinrich
51. Dr. Jirair Gevorkyan	PhD in Chem., spring 2013	Advisor: Dr. Robert Igarashi
52. Dr. David Restrepo	PhD in Chem., spring 2013	Advisor: Dr. Richard Blair
53. Dr. Binh Tran	PhD in Chem., spring 2013	Advisor: Dr. Lei Zhai
54. Dr. David Reid	PhD in Eng., fall 2012	Advisor: Dr. Sudipta Seal
55. Dr. Caitlin Rinke	PhD in Chem., fall 2012	Advisor: Dr. Michael Sigman
56. Dr. Deborah Maxwell	PhD in Chem., summer 2012	Advisor: Dr. Robert Igarashi
57. Dr. Sihui He	PhD in Optics, spring 2012	Advisor: Dr. Shin-Tson Wu
58. Dr. Christina Oropeza	PhD in Chem.	Advisor: Dr. Christopher Clausen
59. Dr. Shruba Gangopadhyay	PhD in Chem., fall 2010	Advisor: Dr. Artem Masunov
60. Dr. Hubert Seigneur	PhD in Optics, fall 2010	Advisor: Dr. Winston Schoenfeld
61. Dr. Sanchita Biswas	PhD in Chem., spring 2010	Advisor: Dr. Kevin Belfield
62. Dr. Luis Ono	PhD in Phys., fall 2009	Advisor: Dr. Beatriz Roldán-Cuenya
63. Dr. Xiong Liu	PhD in Chem., summer 2009	Advisor: Dr. Qun Huo
64. Dr. Qui Dai	PhD in Chem., spring 2008	Advisor: Dr. Qun Huo
65. Ms. Amanda Parish	MS in Optics, 2007	Advisor: Dr. Shin-Tson Wu
66. Ms. Kathleen Brooks	PhD candidate in Chem.	Advisor: Dr. Cherie Geiger
67. Dr. Raymond C. Rumpf	PhD in Optics, spring 2006	Advisor: Dr. Eric Johnson
68. Dr. Marisol Garcia	PhD in Chem., spring 2006	Advisor: Dr. Florencio Hernandez
69. Dr. Chien-Hui Wen	PhD in Optics, spring 2006	Advisor: Dr. S.-T. Wu
70. Dr. Kristen Milum	MS in Chem., fall 2005	Advisor: Dr. Cherie Geiger

## LECTURE COURSES TAUGHT

*Created two new courses.*

*Taught eight different courses, for Chemistry and Optics, at graduate and undergraduate levels. 9744 student-credit hours in total (for fall 2003 - spr. 2017)*

1. Frontiers in Optics	OSE 4930	Undergraduate level
Created by Kuebler in 2014 for the B.S. in Photonics Science and Engineering, UCF		
2. Solid-State Inorganic Chemistry	CHM 6620	Graduate level
Created by Kuebler in 2004 for the PhD in Chemistry, Materials Track, UCF		
3. Fundamentals of Chemistry II	CHM 2046	Undergraduate level
4. Honors Fundamentals of Chemistry II	CHM 2046H	Undergraduate level
5. Honors Fundamentals of Chemistry Lab	CHM 2046L	Undergraduate level
6. Physical Chemistry Lab	CHM 3411L	Undergraduate level
7. Inorganic Chemistry Lab	CHM 4610L	Undergraduate level
8. Chemistry of Materials	CHM 6711	Graduate level

## **ADMINISTRATIVE SERVICE**

**Co-Founder and Associate Director**, UCF Center for Ethics Aug. 2019 - present

**Interim Assistant VP of Research**, UCF Office of Research (ORC) Aug 2012 - Aug 2013

- Served as a liaison between Centers & Institutes (C&I) and Academic Affairs. Duties included reviewing content of C&I Annual Evaluation Standards and Procedures, making recommendations for changes, helping with C&I HR related issues, coordinating the submission of C&I Annual reports, etc.
- Coordinated sabbatical review process for faculty from C&I and Small Colleges.
- Served as the ORC representative on the university Program Review Committee for external review of academic programs.
- Served as the ORC representative in the university Policies and Procedures committee.
- Supported faculty in the proposal development process (e.g., NSF Materials Research Instrumentation Grants and NSF CAREER grants).
- Co-led internal review of proposals for limited-submission programs.
- Served as ORC representative to the UCF Emergency Operations Center.
- Coordinated UCF's submission for the inaugural Innovation and Economic Prosperity Award (IEPA) administered by the Association of Public and Land-Grant Universities (APLU).
- Organized ORC's "Select Focus Group on UCF Innovation and Economic Development" (28 June 2013). Stakeholders from academia, industry, government, and local economic development councils were assembled to assess and discuss UCF strengths and weaknesses in economic development, and to propose means for improvement. This activity was organized as part of UCF participation in the 2013 APLU-IEPA competition.
- Responsible for assisting with the professional development of post-doctoral associates at UCF.
- Designated as UCF's Councilor (campus representative) for the Oak Ridge Association of Universities (ORAU) and supported all program submissions from UCF to ORAU.
- Assisted the VP of Research with data analysis, report preparation, and representation at meetings as needed (e.g., Provost's Direct-Report Meetings, University Research Council meetings).
- Notable accomplishments
  - UCF was selected as a finalist for the APLU-IEPA competition and awarded a nationally-recognized designation as an "APLU Innovation and Economic Prosperity University".
  - Developed a one-hour presentation on UCF/State-University-System policies and guidelines on Responsible Conduct, Compliance, and Professional Ethics that was presented by the VP for Research to faculty and staff across all units on campus.

## **PROFESSIONAL SERVICE and MEMBERSHIP**

### **PROFESSIONAL MEMBERSHIPS**

- Senior Member, SPIE – Soc. of Photo-Optical Instrumentation Engineers.  
(Top 13% in the leading international professional organization for optical engineers)
- American Chemical Society
- Materials Research Society
- Senior Member, Optical Society of America
- Member, Association for Practical and Professional Ethics (APPE)

## CONFERENCE and SYMPOSIA ORGANIZATION

1. Member of Organizing Committee for "Novel Patterning Technologies for Semiconductors, MEMS/NEMS and MOEMS 2020," conference AL102 held as part of SPIE Advanced Lithography (23 - 27 Feb. 2020, San Jose, CA), <https://spie.org/AL/conferencedetails/novel-patterning-technologies?SSO=1>.
2. Member of Organizing Committee for "Advanced Fabrication Technologies for Micro/Nano Optics and Photonics XIII", a conference held as part of Photonics West 2020 - OPTO (1 - 6 Feb. 2020, San Francisco, CA), <http://spie.org/PW200/conferencedetails/advanced-fabrication-micro-nano>.
3. Member of Organizing Committee for "FiO 1: Optical Design, Fabrication and Instrumentation," a conference held as part of Frontiers in Optics: the 103rd OSA Annual Meeting and Exhibit/Laser Science Conference (Optical Society of America, 15 - 19 Sept. 2019, Washington, D. C.), [https://www.osa.org/en-us/meetings/global\\_calendar/events/frontiers\\_in\\_optics\\_the\\_103rd\\_osa\\_annual\\_meeting](https://www.osa.org/en-us/meetings/global_calendar/events/frontiers_in_optics_the_103rd_osa_annual_meeting).
4. Member of Organizing Committee for "Advanced Fabrication Technologies for Micro/Nano Optics and Photonics XII", a conference held as part of Photonics West 2019 - OPTO (2 - 7 Feb. 2019, San Francisco, CA), <http://spie.org/PW190/conferencedetails/advanced-fabrication-micro-nano>.
5. S. M. Kuebler, Chair, Session 2: "OLEDs, Organic Photonic Materials and Devices XXI," held as part of SPIE's Photonics West 2019 (2 - 7 Feb. 2019, San Francisco, CA).
6. Member of Organizing Committee for "*Semiconductor Nanostructures towards Electronic and Optoelectronic Device Applications - VII*", a symposium proposed for the Materials Research Society 2019 E-MRS Spring Meeting (Nice, France, 27-31 May 2019).
7. Member of Organizing Committee for "Advanced Fabrication Technologies for Micro/Nano Optics and Photonics XI", a conference held as part of Photonics West 2018 - OPTO (27 Jan. - 1 Feb. 2018, San Francisco, CA).
8. Member of Organizing Committee for "Advanced Fabrication Technologies for Micro/Nano Optics and Photonics X", a conference held as part of Photonics West 2017 - OPTO (28 Jan. - 2 Feb. 2017, San Francisco, CA).
9. Founder and co-organizer: "Third-Annual Florida Chemistry Conclave: Materials Chemistry Symposium" (Florida Institute of Technology, 27 Jan. 2018).

Kuebler co-founded The Florida Chemistry Conclave with advisee Lauren Gandy (BS, Forensic Sci, 2016; ACS@UCF president and vice-president) to be an annually-themed professional-development workshop that brings 50 - 100 chemistry undergraduates together from across Florida for a day filled with research, networking, volunteering, and fun. The first two Conclaves were hosted in 2016 and 2017 at UCF. The event is co-sponsored by the Orlando Section of ACS, Stetson University, and UCF's Department of Chemistry, College of Sciences, Graduate College, College of Engineering, and CREOL, The College of Optics and Photonics. The event changes theme annually and hosting rotates biannually between institutions across the state. The Conclave has been supported by "Inter-Chapter Relations Grants" awarded by the national ACS (2016 & 2017) and authored by Kuebler with students and faculty co-leads at partnering institutions.

10. Founder and co-organizer: The "Second Annual Florida Chemistry Conclave: Ethics and Responsible Conduct in Chemistry" (UCF, 28 Feb. 2017).
11. Founder and co-organizer: The "First Annual Florida Chemistry Conclave" (UCF, 2 Apr. 2016).
12. Member of Organizing Committee for "Advanced Fabrication Technologies for Micro/Nano Optics and Photonics IX", a conference held as part of Photonics West 2016 - OPTO (13 - 18 Feb. 2016, San Francisco, CA).
13. Member of Program Committee for "FiO 1: Optical Design, Fabrication and Instrumentation," Subcommittee of the Frontiers in Optics/Laser Science 2015 Conference (Optical Society of America), <https://www.frontiersinoptics.com/library/images/fio/Archives/FiOLS2015.pdf>.
14. Member of Organizing Committee for "*Semiconductor Nanostructures towards Electronic and Optoelectronic Device Applications - V*", Materials Research Society 2015 E-MRS Spring Meeting (Lille, France, 11-15 May 2015), <https://www.european-mrs.com/2015-spring-symposium-i-european-materials-research-society>.
15. Member of Organizing Committee for "Advanced Fabrication Technologies for Micro/Nano Optics and Photonics VIII", a conference held as part of Photonics West 2015-OPTO.
16. Member of Organizing Committee for "Advanced Fabrication Technologies for Micro/Nano Optics and Photonics III", conference #MF106 at Photonics West 2010, SPIE (23-28 Jan. 2010, San Jose, CA). W. V. Schoenfeld, J. J. Wang, M. Loncar, T. J. Suleski, Eds.
17. Chair of spring 2009 Materials Research Society Symposium BB: "Material Systems and Processes for Three-Dimensional Micro- and Nano-Scale Fabrication and Lithography".
18. Member of Organizing Committee for "Advanced Fabrication Technologies for Micro/Nano Optics and Photonics II", conference #MF106 at Photonics West 2009, SPIE (24-29 Jan. 2009, San Jose, CA). T. J. Suleski, W. V. Schoenfeld, J. J. Wang., Eds.
19. Member of Organizing Committee for "Advanced Fabrication Technologies for Micro/Nano Optics and Photonics", conference #6883 at Photonics West 2008 (19-24 Jan. 2008, San Jose, CA). T. J. Suleski, W. V. Schoenfeld, J. J. Wang., Eds., SPIE, Vol. 6883.
20. Member of Organizing Committee for "Micromachining Technology for Micro-Optics and Nano-Optics V and Microfabrication Process Technology XII", conference #6462 at Photonics West 2007 (22 - 24 Jan. 2006, San Jose, CA). E. G. Johnson, G. P. Nordin, T. J. Suleski, Eds., SPIE, Vol. 6462.
21. Chair of "Micro- and Nano-Scale Patterning Via Multi-Photon Activated Processes", a special symposium organized for the 231st National Meeting of the American Chemical Society (26-30 Mar. 2006, Atlanta, GA). Presenters included internationally renowned scientists from Japan (S. Maruo, Yokohama Natl. Univ.; S. Kawata, Osaka Univ.), the US (C. Ober, Cornell; J. Fourkas, Univ. Maryland; J. Perry, Georgia Tech; P. Campignola, Univ. Conn.), Germany (M. Wegener, Univ. Karlsruhe), and the UK (R. G. Denning, Oxford). Travel support for distinguished international speakers was provided by competitive award of a Type-SE grant from the Petroleum Research Fund (SE-44579).

22. Member of Organizing Committee for "Micromachining Technology for Micro-Optics and Nano-Optics IV", conference #6110 at Photonics West 2006 (23-25 Jan. 2006, San Jose, CA). E. G. Johnson, G. P. Nordin, T. J. Suleski, Eds., SPIE, Vol. 6110.
23. Member of Organizing Committee for "Micromachining Technology for Micro-Optics and Nano-Optics III", conference #5720 at Photonics West 2005 (24-29 Jan. 2005, San Jose, CA). E. G. Johnson, G. P. Nordin, T. J. Suleski, Eds., SPIE, Vol. 5720.

## WORKSHOP ORGANIZATION, PRESENTATIONS and SERVICE

Several of the workshops listed below were co-organized and led by Kuebler and Dr. Jonathan Beever (Philosophy) as part of a campus-wide initiative they launched in 2017 to *cultivate a culture of ethical and responsible conduct in research at UCF*. Participants discussed their own experiences with ethics in research and explored ways they could enhance ethical cultures within their own research programs, formal teaching, departments, colleges, and programs. Each workshop was customized to match the roles and backgrounds of the attendees.

1. S. M. Kuebler. "Rebooting our Understanding in Chemistry of Falsification, Fabrication, and Plagiarism (FFP)," a presentation to 50+ UCF Chemistry graduate students on the principles of FFP, professional behavior, and their ethical underpinnings (19 Apr. 2019).
2. S. M. Kuebler and J. Beever. "COS New-Faculty Workshop on Ethics in STEM" (UCF College of Sciences, 29 Mar. 2019).
3. S. M. Kuebler, "Life-Long Learning Opens Many Doors," a presentation on professional development and undergraduate research delivered to the Student Chapter of the American Chemical Society of UCF (23 Jan. 2019).
4. J. Beever and S. M. Kuebler. "Cultivating Student Leadership of a Culture of Ethical Literacy and Responsible Conduct," a workshop organized to provide Diversity Education Units (<https://www.sdes.ucf.edu/deu/>) for staff in the Student Development and Enrollment Services Division of UCF (held at UCF on 14 Nov. 2018).
5. S. M. Kuebler, "Make Passion for Learning Your Route to Success," a presentation on professional development and undergraduate research delivered to first-year students enrolled in the Honors Symposium course, Burnett Honors College, UCF (29 Oct. 2018).
6. Panelist: "Near-Miss Candidates," a round-table discussion held as part of the New Advisors Workshop, organized by the National Association of Fellowship Advisors (Embassy Suites, Orlando FL Downtown, 26 Jun. 2018, <http://www.nafadvisors.org/regional-summer-workshops>). Kuebler represented the Marshall Scholarships, with Josh Stanton, Youth Outreach Coordinator for the UK Embassy, Washington, DC.
7. S. M. Kuebler and J. Beever. "Ethics in Research: How to Start on the Right Path." Presentation and discussion led for students in the UCF Summer Undergraduate Research Fellowship program (SURF, 25 May 2018).
8. S. M. Kuebler and J. Beever. "Ethical Literacy in Undergraduate Research." Presentation and discussion led for members of UCF's Undergraduate Research Council (17 April 2018).

9. S. M. Kuebler and J. Beever. "Building a Culture of Ethical Literacy across the Disciplines." Presentation and discussion led for members of UCF Faculty Excellence's "Assistant Professor Excellence Program" (APEP, <https://facultyexcellence.ucf.edu/assistant-professor-excellence-program/>, 20 Feb. 2018).
10. S. M. Kuebler and J. Beever. "CDEP: Cultivating a Culture of Ethical Leadership." Presentation and discussion led for members of UCF Faculty Excellence's "Chairs and Directors Excellence Program (CDEP, <https://facultyexcellence.ucf.edu/chairs-and-directors-excellence-program>, 23 Jan. 2018)
11. S. M. Kuebler. "Doing the Right Thing: What Every Graduate Student Should Know about Research Misconduct."

This is a core workshop in the UCF College of Graduate Studies "Pathways to Success" program ([https://www.students.graduate.ucf.edu/Ethics\\_Workshops](https://www.students.graduate.ucf.edu/Ethics_Workshops)). Students learn the 12 core areas of responsible conduct of research (RCR) through a combination of case studies and facilitated discussion. Emphasis is placed on recognizing the historical foundations of RCR within the broader landscape of ethics. Students learn how to leverage communication and disclosure for the ethical and responsible conduct of research. Kuebler re-designed this core-course upon taking it over in fall 2017. *The workshop has been held 18 times, reaching about 20 students in each sitting*, on 1) 5 Apr. 2018, 2) 7 Mar. 2018, 3) 30 Jan. 2018, 4) 29 Aug. 2017, 5) 27 Sept. 2017, 6) 19 Oct. 2017, 7) 15 May 2018, 8) 1 Jun. 2018, 9) 28 Jun. 2018, 10) 11 Sept. 2018, 11) 14 Sept. 2018, 12) 2 Oct. 2018, 13) 8 Nov. 2018, 14) 17 Jan. 2019, 15) 10 Feb. 2019, 16) 26 Mar. 2019, 17) 29 Mar. 2019, 18) 14 May 2019.

12. S. M. Kuebler and J. Beever. "COS New-Faculty Workshop on Ethics in STEM" (UCF College of Sciences, 12 Oct. 2017).
13. S. M. Kuebler. "Workshop on Graduate Studies" (Physics Dept., Ursinus College, 5 Oct. 2017).

Kuebler organized and led a workshop at Ursinus College in which undergraduates in physics explored a wide range of topics related to graduate studies including what graduate study is like, what opportunities it affords, how to prepare and apply for graduate school, and how to select a research mentor.

14. Panelist: "New Graduate Student Orientation and Welcome Workshop" (9 Aug. 2017).

Kuebler served on a panel organized by the UCF College of Graduate Studies that discussed how to be a successful graduate student and answered questions from circa 250+ attendees.

15. S. M. Kuebler. "Career Planning for after Graduate School: Academia, Industry, and More" (UCF, 17 Jun. 2017).

Kuebler organized a mini-workshop held as part of the UCF Summer Research Academy, organized by the Office of Undergraduate Research, in which students learned how skills gained through graduate education make new career opportunities possible.

16. Panelist: "It's Never Too Early to Think about Graduate School" (UCF, 17 Jun. 2017).

Kuebler served on a panel held as part of the UCF Summer Research Academy, organized by the Office of Undergraduate Research. Students learned what graduate schools are looking for, how to prepare their applications, and how to develop themselves for graduate education and careers afterward through formal coursework and experiences outside the classroom.

17. Panelist: "New Graduate Student Orientation and Welcome Workshop" (College of Graduate Studies, UCF, 11 Aug. 2016).
18. S. M. Kuebler. "Career Planning for after Graduate School: Academia, Industry, and More" (Summer Research Academy, UCF, 11 Jun. 2016).
19. Panelist: "It's Never Too Early to Think about Graduate School" (Summer Research Academy, UCF, 11 Jun. 2016).
20. Panelist: "New Graduate Student Orientation and Welcome Workshop" (College of Graduate Studies, UCF, 12 Aug. 2015).
21. S. M. Kuebler and C. M. Schwarz. "Preparing Students for STEM Careers" (UCF College of Education, 17 Jul. 2015).

Kuebler and Schwarz co-organized and led a workshop for 28 teacher-candidates in the class of Dr. Gwynn Crittenden exploring how to best prepare students for further study and careers in STEM. The workshop included presentations on current frontiers in nanotechnology and work in the Kuebler Group on nano-scale 3D printing by multi-photon lithography. Teacher-candidates were also toured in two groups through the Kuebler-Group labs. This activity was structured as professional-training activity for Schwarz when she worked with Kuebler as a post-doctoral scholar.

22. S. M. Kuebler. "Career Planning for after Graduate School: Academia, Industry, and More" (Summer Research Academy, UCF, 13 Jun. 2015).
23. Panelist: "It's Never Too Early to Think about Graduate School" (Summer Research Academy, UCF, 13 Jun. 2015).
24. Co-organizer: "Women in Research: Paths to Successful Careers" (UCF, 13 Jun. 2015), with Dr. Kim Schneider and Dr. Casey Schwarz.

Attendees reviewed important questions about careers for women in research including how to overcome barriers, how to balance family and having a life, and various career paths. This mini-workshop was created in 2014 by Kuebler as a post-doctoral mentoring activity for Kuebler-Group post-doc Dr. Casey Schwarz, who led the activity.

25. Panelist: "NSF CAREER Advising Workshop" (UCF College of Engineering and College of Sciences, 2011 - 2014).
26. Panelist: "It's Never Too Early to Think about Graduate School" (Summer Research Academy, UCF, 14 Jun. 2014).
27. Co-organizer: "Women in Research: Paths to Successful Careers" (Summer Research Academy, UCF, 14 Jun. 2014), with Dr. Kim Schneider and Dr. Casey Schwarz.
28. Workshop leader: "Career Planning for after Graduate School: Academia, Industry, and More" (Summer Research Academy, UCF, 15 Jun. 2013).
29. Panelist: "It's Never Too Early to Think about Graduate School" (Summer Research Academy, UCF, 15 Jun. 2013).
30. Co-leader and Participant: "Issues in Academic Leadership" workshop (Faculty Center for Teaching and Learning, UCF, 22 Mar. 2013).
31. Organizer and leader: "Organic and Polymeric Optical Materials" (CREOL, UCF, 6 Mar. 2013).

This workshop was created and led by Kuebler for the CREOL Industrial Affiliates Day (6-8 March 2013) to introduce attendees to the growing field of organic and polymeric optical materials.

32. Invited Participant, NSF Germany-USA Workshop on Nanomaterials Research exchange program sponsored jointly by NSF and the German Research Ministry (BMBF) involving 12 selected US scientists and engineers (2005).

### **EDITORIAL POSITIONS**

- Associate Editor, *Journal of Micro/Nanolithography, MEMS, and MOEMS* (2008 to present, see <https://www.spiedigitallibrary.org/journals/journal-of-micro-nanolithography-mems-and-moems/editorial-board?SSO=1>).
- Editorial Board Member, *Journal of Experimental Nanoscience*, published by Taylor and Francis (<http://www.tandfonline.com/action/journalInformation?show=editorialBoard&journalCode=tjen20>)
- Guest Associate Editor, *Journal of Micro/Nanolithography, MEMS, and MOEMS* (2008).

### **PROPOSAL PEER REVIEW**

1. National Science Foundation – Chemistry, Materials Research, and SBIR divisions
2. NanoSci-ERA, European Research Area Nanoscience Consortium
3. American Chemical Society Petroleum Research Fund
4. Austrian Science Fund (2014)
5. Maryland Industrial Partnerships Program

### **JOURNAL PEER REVIEW**

1. *Advanced Functional Materials*
2. *Advanced Materials*
3. *Applied Optics*
4. *Applied Physics Letters*
5. *Applied Physics B*
6. *ASME Journal of Micro and Nano Manufacturing*
7. *Chemistry of Materials*
8. *Electrochemical and Solid State Letters*
9. *European Journal of Inorganic Chemistry*
10. *Journal of the American Chemical Society*
11. *Journal of Colloid and Interface Science*
12. *Journal of Materials Chemistry*
13. *Journal of Micro/Nanolithography, MEMS, & MOEMS*
14. *Journal of Nano Education*
15. *Journal of Nanophotonics*
16. *Journal of Optics and Laser Technology*
17. *Journal of the Optical Society of America B*
18. *Journal of Physical Chemistry*
19. *Journal of Vacuum Sci. Technology*
20. *Laser and Photonics Reviews*
21. *Macromolecules*



22. *Materials Today*
23. *Micromachines*
24. *New Journal of Chemistry*
25. *Optics Communications*
26. *Optics Express*
27. *Optics Letters*
28. *Photonics Journal*
29. *Physical Chemistry Chemical Physics*
30. *Physica Status Solidi*
31. *Science Reports (Nature Group)*
32. **Science**

### TEXTBOOK REVIEW

- Invited to review chapters in T. R. Gilbert, R. V. Kirss, N. Foster, G. Davies, *Chemistry: The Science in Context*, 3rd. edn. (W. W. Norton, New York, 2015, ISBN-13: 978-0393934311). 2012
- Invited by W. W. Norton publishers to participate in a focus group and review electronic materials for teaching chemistry, including in-class response and online homework systems. 2013

### UNIVERSITY SERVICE

- University-Level Service
  - Faculty Mentor, Society of Optics Students, CREOL, UCF 2015 - present
  - Faculty Mentor, ACS Student Chapter, UCF 2007 - present
  - ACS@UCF was designated "Outstanding Chapter" by national ACS four years in a row (2014, 2015, 2016, 2017 & 2018 – awarded to only 10% of chapters nationally) and won the Green Chemistry Award in 2014 and 2018.***
  - Faculty Excellence Advisory Committee, Mid-Career Subcommittee 2017 - present  
Selected via application: <https://facultyexcellence.ucf.edu/faculty-advisory-committee>
  - Advisory Board Member and Sr. Personnel, F-LEARN (FTICs) and T-LEARN (AA transfer students). These are NSF-funded programs administered by PI Dr. Kim Schneider and the Office of Undergraduate Research. 2016 - present
  - Undergraduate Research Council (representing Optics) 2011 - present
    - + Judge, Showcase for Undergraduate Research 2011 - present
    - + Undergraduate Research Grant reviewer 2013 - present
  - Internal proposal review, UCF Office of Research
    - + Beckman Scholarship proposals 2019
  - "Wahoo" services re-organization advisory committee, Office of Research and Commercialization, UCF 2016 - 2018
  - Goldwater Scholar University Selection Committee 2017/2018
  - Faculty Senate 2015 - 2017
  - Faculty Senate Budget and Administration Committee 2015 - 2017
  - Faculty Senate Undergraduate Policy and Curriculum Committee 2015 - 2018
  - Accessibility and Technology Committee (Student Disability Services) 2013 - 2016
  - UCF National Merit Scholar Faculty Mentor 2007 - 2012

- Dean of Optics Five-Year Review Committee 2014/2015
- Research Misconduct Review Committee 2012 - 2013
- Provost's Ad Hoc Post-Doctoral Associate Committee 2012 - 2013
- Member, Search Committee for Assoc. VP Finance / Chief Human Resources Officer 2013
- University Research Council 2012 - 2013
- University Academic Program Review Committee 2012 - 2013
- Astronaut Scholarship Selection Committee member 2010 - 2012
- Provost's Evaluation Advisory Committee for Dean of Honors College 2011
- Focus Group, Five-Year Review of Dean of College of Graduate Studies 2011
- College-Level Service
  - NSF CAREER Aspirant Mentoring Committee in CREOL 2019 - present
  - Marketing Committee for CREOL 2018 - present
  - Dean's Advisory Council, College of Sciences 2018 - present
  - Grade Appeal Committee, College of Sciences Fall 2018
  - Student of the Year Committee, CREOL 2017/2018
  - Research Incentive Award (RIA) Committee, College of Science 2018 - present
  - Recognition and Scholarships Committee, College of Science 2015 - 2017
  - Sabbatical Committee 2014 - 2015
  - Teaching Incentive Program (TIP) Award Committee, College of Science '09, '15 - '16
  - Promotion and Tenure Committee, Nanoscience and Technology Center 2012
  - COS Excellence Awards Committee, College of Science 2011
- Department-Level Service
  - NSF CAREER Aspirant Mentoring Committee in Chemistry 2019 - present
  - Chair, Chemistry Graduate Affairs Committee 2018 - present
  - Chair, Search Committee for Chemical Education Research 2018/2019
  - Promotion and Tenure Committee, Chemistry Dept. 2008 - present
  - Safety Team, Physical Sciences Building, UCF 2015 - present
  - Amplified femtosecond laser, co-administration/maintenance (department facility) 2015 - present
  - Inorganic Chemistry proficiency exam administration 2010 - present
  - Organizing Committee, UCF/ACS Chemistry Mixer (31 Mar. 2019) 2018/2019
  - Facilities and Space Committee, Chemistry Dept. 2016 - 2018
  - Steering Committee, Chemistry Dept. 2015 - 2018
  - 2017 Open Search Committee (4 positions searched in parallel) 2017 - 2018
  - Annual Evaluation Standards and Procedures (AESP) Committee, Chem. Dept. 2016 - 2017
  - Chair, Organic Chemistry Faculty Search Committee, Chem. Dept. 2016 - 2017
  - Graduate Committee, Chem. Dept. 2015 - 2016
  - Chair, Biochemistry Search Committee, Chem. Dept. 2015 - 2016
  - Search Committee in Nanophotonics, CREOL, UCF 2014 - 2015
  - Search Committee in Atto-science, Physics, UCF 2014 - 2015
  - Safety Committee, Chemistry Dept. 2008 - 2015
  - Awards and Recognition Committee 2010 - 2015
  - Outreach Committee 2008 - 2015
  - Inorganic and Physical Chemistry Committee, Chemistry Dept. 2004 - 2011
  - Graduate Recruiting Committee, CREOL 2004 - 2012
  - Undergraduate Curriculum Committee, Chemistry Dept. 2009 - 2012

- Cobb Chair Search Committee, CREOL 2011
- Biophotonics Search Committee, CREOL 2008, 2004/2005
- Biochemistry Search Committee, Chemistry Dept. 2005
- Instrumentation Committee, Chemistry Dept. 2004 - 2005

### **OUTREACH and SYNERGISTIC ACTIVITIES**

- Cub Master, Pack 3058, Scouts BSA 2019 - present
- Webelos-Den Leader, Pack 3058, Scouts BSA 2019 - present
- Bear-Den Leader, Pack 3058, Scouts BSA 2018 - 2019
- Fundraising Chair, Pack 3058, Scouts BSA 2018 - 2019
  - Raised over \$2,000 for Pack
- Assistant Cub Master, Pack 3058, Scouts BSA 2018 - 2019
- Assistant Wolf-Den Leader, Pack 3058, Scouts BSA 2017 - 2018
- Judge, Seminole Co. Science Fair Annually, since 2006
- Judge, Orlando Science Challenge (Orlando Science Center) 2015 - present
- Judge, Nelson Ying Science Competition (Orlando Science Center) 2015 - present
- Guest lecturer, Science, Technology, Engineering, Art and Math (STEAM) project 2012 & 2013
 

Lectures entitled "The Art of Research in Nanophotonic Materials" and "The Fourier Transform" were presented in layman's terms to art students to inspire them to create works that reflected some aspect of the science. Kuebler met again with the groups to critique the art and attended a public showing of all pieces. STEAM was supported through the NSF-funded I<sup>3</sup> program led by UCF Provost Tony Waldrop and Dr. Michael Georgiopoulos (NSF-0963146).
- Immediate Past-Chair, Orlando Section of the American Chemical Society (ACS) Jan 2013 - Dec 2013
- Chair, Orlando Section of the ACS Oct 2011 - Dec 2012
- Chair-Elect, Orlando Section of the ACS Jan 2011 - Oct 2011
- Secretary, Orlando Section of the ACS Jan 2010 - Dec 2010
- Outreach Coordinator, Orlando Section of the ACS Jan 2009 - Oct 2010
- Outreach presentations on undergraduate/grad research to Orange Co. Schools (Orlando, FL), Seminole State College, Orlando Science Center and Florida Solar Energy Center, Paul Hagerty High School. 2004 - 2011
- Instructor, OCTET Program: ACS-IPG-funded program for training high school chemistry student in the seven-county region of the Orlando-Section. 2011
- Orlando Science Center Laser Camp Instructor Summer 2011
- Committee Member, Marshall Scholarship, UK Consulate, Atlanta Region 2009 - 2013

### **CERTIFICATIONS and OTHER TRAINING**

- Collaborative Institutional Training Initiative (CITI, <https://www.citiprogram.org>):
  - "Human Subjects Research - Group 1. Biomedical Research Investigators and Key Personnel." 2 Dec 2018
  - "Responsible Conduct of Research for Engineers." 28 Nov 2019

- "Physical Science Responsible Conduct of Research" 28 Nov 2019
- "Conflict of Interest Mini-Course." 2 Jun 2013
- UCF's "IRB 101 Workshop" 29 Nov 2019
- Ethical Leadership Workshop (UCF course LDR005) 21 Feb 2018
- Certified CPR and AED for Adults (American Safety & Health Institute) 12 Jun 2015
- Certified Basic First Aid (American Safety & Health Institute) 12 Jun 2015
- Co-leader and Participant: "Issues in Academic Leadership" workshop  
UCF (Faculty Center for Teaching). 22 Mar 2013
- "Academic Budget Basics" workshop (Faculty Center for Teaching, UCF) 19 Apr 2013
- "Faculty Mentoring" workshop (Faculty Center for Teaching, UCF) 15 Apr 2011
- Leadership Workshop (American Chemical Society, Ft. Worth, TX) 21-23 Jan 2011