# Curriculum Vitae – Dr. Stephen M. Kuebler

*as of 21 May 2023*


Physical Science Building, Rm. 347
4111 Libra Dr.
University of Central Florida (UCF)
Orlando, FL 32816-2366 USA

Tel: 407-823-3720
Fax: 407-823-2252
E-mail: kuebler@ucf.edu
Web: http://npm.creol.ucf.edu


## EMPLOYMENT and APPOINTMENTS

Professor of Chemistry and Optics — 8 Aug 2019 - present
University of Central Florida (UCF)
Joint appointment in Chemistry and CREOL, The College of Optics & Photonics
Secondary Joint appointment in Material Science and Engineering
Tenure in Chemistry Department, College of Science (awarded 8 Aug 2009)

Founding Associate Director, UCF Center for Ethics — Aug 2019 - present

Faculty Fellow for Student Success in Chemistry — Jan 2023 - present
College of Science, University of Central Florida

Associate Professor of Chemistry and Optics — 8 Aug 2009 - 7 Aug 2019
University of Central Florida

Interim Assistant Vice President of Research & Commercialization — 9 Aug 2012 - 31 Aug 2013
Office of Research & Commercialization, UCF

Assistant Professor of Chemistry and Optics — 8 Aug 2003 - 7 Aug 2009
University of Central Florida

Assistant Staff Scientist — 1 Jul 2001 - 31 Jul 2003
University of Arizona
Department of Chemistry

Research Associate — 26 Jan 1999 - 30 Jun 2001
University of Arizona
Department of Chemistry

Postdoctoral Research Scholar — 1 Feb 1998 - 25 Jan 1999
California Institute of Technology
Department of Chemistry

"Kids-in-the-News" TV Reporter — Summer 1983 - Summer 1987
WBKO-TV, Bowling Green, Kentucky

"Kids-in-the-News" TV Reporter — Summer 1982 - Summer 1983
KLFY-TV, Lafayette, Louisiana

## EDUCATION

University of Oxford – Oxford, UK — Aug 1991 - Jan 1998
D.Phil. in Chemistry conferred Mar 1998

Tulane University – New Orleans, LA — Aug 1987 - May 1991
B.S., summa cum laude, major in Chemistry, minor in Physics
B.A., cum laude, major in German

University of Hamburg – Hamburg, Germany — Sept 1989 - July 1990
Junior-year-abroad study while enrolled at Tulane University

## AWARDS and RECOGNITION

- Marshall Scholarship, Selection Committee Member, Atlanta Region — 2009 - 2013 & 2019 - 2022
  Association of Commonwealth Universities, UK
- Clifford G. Christians Ethics Research Award — 26 Feb. 2022
  Presented by the Association for Practical and Professional Ethics (APPE) for:

  J. Beever and **S. M. Kuebler**, "Mapping the institutional epidemiology of ethics." 31st Annual International Conference of the Association for Practical and Professional Ethics (24-27 Feb. 2022, Cincinnati, OH), Association for Practical and Professional Ethics (APPE).

  "This is one of the highest awards presented by the Association and represents a significant milestone in academic achievement."
- Outstanding Volunteer, awarded by Orlando Section – ACS — 2018
- Research featured on Fox 35 News:
  https://www.youtube.com/watch?time_continue=4&v=B3UsIPvrkcc
- 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.
- Research Incentive Award ("RIA", UCF College of Science, UCF) — 2018
- Teaching Incentive Program Award ("TIP", College of Sciences, UCF) — 2009, 2014, & 2019
- Excellence in Undergraduate Teaching Awards (College of Sciences, UCF) — 2008 and 2015
- 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
- Faculty Fellow for Student Success in Chemistry, College of Science, UCF — Jan 2023 - present
  Leading Chemistry faculty in an effort to improve student-performance and course-completion rates in the sequence Intro-Chem → Chem-1 → Chem-2 → Organic-1 → Organic-2 → Biochemistry.
- 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 - 2020
  Awarded funding for project with Dr. Jonathan Beever (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 - present
  http://www.tandfonline.com/action/journalInformation?show=editorialBoard&journalCode=tjen20
- Associate Editor, *Journal of Optical Microsystems* (SPIE) — 2020 - present
- Associate Editor, *Journal of Micro/Nanolithography, MEMS, and MOEMS* (SPIE) — 2008 - 2020
  https://www.spiedigitallibrary.org/journals/journal-of-micro-nanolithography-mems-and-moems/editorial-board?SSO=1
- Chaired/co-organized over 30 conferences and symposia (*see Conf. and Symp. Organized*)
- Co-organized/led over 50 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, ChemEd-Research Search Committee, Chem. Dept., UCF — 2018/2019
- Chair, Organic Chemistry Search Committee, Chem. Dept., UCF — 2016 - 2017
- Chair, Biochemistry Search Committee, Chem. Dept., UCF — 2015 - 2016
- Asst. Scout Master, Boy Scout Troop 58, Central Florida Council, Scouts BSA — Aug 2022 - present
- Cub Master and multiple other leadership positions, Scout Pack 3058, Central Florida Council, Scouts BSA — 2017 - 2022

## 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 3D optical beam-shaping.
- 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**

52 contracts/grants awarded at UCF.

| | | |
|---|---|---|
| Total involvement: | $ 6,172,808.79 | (external = $ 5,075,665.00) |
| Kuebler credit-share: | $ 3,487,404.35 | (external = $ 3,215,144.80) |

### *Listing of contracts and grants*

1. “Broadband Multifocal IR Metalenses"
   - PI: Stephen M. Kuebler
   - Agency: Air Force Research Laboratory
   - Grant #: AFRL/RWWI FA8651-23-1-0005
   - UCF ID#: AWD00005480
   - Start date: 08/01/2023
   - End date: 07/31/2026
   - Amount: $175,000.00 (Kuebler share = $175,000)
   - Type: External
   - Purpose: This award supports fundamental research for the development of high-performance meta-lenses comprised of 3D volumetric scatters.

2. "FHTCC: Volumetric fabrication of micro-needles for nerve repair"
   - PI: Xiaoming Yu (50%)
   - Co-PIs: Stephen M. Kuebler (50%)
   - Agency: UCF/Office of Research & Commercialization/Florida High Tech Corridor Council (FHTCC)
   - Grant #: NA
   - UCF ID#: AWD00005488
   - Start date: 03/14/2023
   - End date: 11/30/2023
   - Amount: $30,000 (Kuebler share = $15,000)
   - Type: Internal
   - Purpose: This award supports a public-private partnership with Axogen, Inc. to develop a new type of nerve-repair device fabricated by multiphoton lithography using three-dimensionally shaped laser beams.

3. "Axogen-UCF Phase 1"
   - PI: Stephen M. Kuebler (50%)
   - Co-PIs: Xiaoming Yu (50%)
   - Agency: Axogen, Inc.

Grant #: NA
UCF ID#: FP00004780
Start date: 12/1/2022
End date: 11/30/2023
Amount: $69,534 (Kuebler share = $34,767.00)
Type: External
Purpose: This award launched a public-private partnership with Axogen, Inc. to develop a new type of nerve-repair device fabricated by multiphoton lithography using three-dimensionally shaped laser beams.

4. "MRI: Acquisition of a Scanning Near-Field Optical Microscope (neaSNOM) with Combined Nano-Infrared/Tip-Enhanced Raman Spectroscopy for Research & Education"
PI: Chris Bennett (20%)
Co-PIs: Stephen M. Kuebler (20%), Kathleen Richardson (20%), Alfons Schulte (20%), Lorraine Leon (20%)
Agency: National Science Foundation
Grant #: NSF 2216239
UCF ID#: FP00004700
Start date: 09/01/2022
End date: 08/31/2023
Amount: $468,564 (Kuebler share = $93,712.80)
Type: External
Purpose: This award funds acquisition of a novel instrument that enables student training and research involving nano-scale infrared and Raman spectroscopy across a wide range of materials.

5. “Volumetric Metalenses"
PI: Stephen M. Kuebler
Agency: Air Force Research Laboratory
Grant #: FA8651-22-1-0002
UCF ID#: AWD00005116
Start date: 08/09/2022
End date: 05/08/2024
Amount: $299,993.00 (Kuebler share = $299,993)
Type: External
Purpose: This award supports fundamental research for the development of high-performance meta-lenses comprised of 3D volumetric scatters.

6. “Spatially varied plasmonic-photonic sensor for detection and identification of airborne agents"
PI: Stephen M. Kuebler
Agency: Air Force Research Laboratory
Grant #: FA8651-19-1-0003 P00004
UCF ID#: FP00000346
Start date: 01/01/2022
End date: 12/31/2023
Amount: $99,999.00 (Kuebler share = $99,999)
Type: External
Purpose: This award provided seed-funds for a new project exploring a method for detecting chemical analytes using sub-micron wells filled with metal-nanoparticles.

7. "SIP: Ultra-High-Speed Flow Facility for Hypersonics and Space Propulsion"
   - PI: Kareem Ahmed (10%)
   - co-PIs: Stephen M. Kuebler, Richard Blair, Xun Gong, Jayanta Kapat, Robert Peale, Seetha Raghavan, Martin Richardson, Laurene Tetard, Mengyu Xu (each at 10% credit-share).
   - Agency: UCF/Office of Provost
   - UCF ID#: AWD00001554 / FP00004522
   - Start date: 09/02/2021
   - End date: 09/01/2022
   - Amount: $500,000 (Kuebler-share = $50,000)
   - Type: Internal
   - Status: Funded
   - Purpose: This award provides seed funding to develop advanced instrumentation for characterizing hypersonic materials.

8. "Capturing multi-scale materials degradation under thermal, mechanical and chemical attack"
   - PI: Seetha Raghavan
   - Co-PI: Stephen M. Kuebler, Ranajay Ghosh, Laurene Tetard
   - Agency: UCF Seed Funding Program
   - UCF ID#: FP00002799
   - Start date: 01/01/2021
   - End date: 12/31/2022
   - Amount: $70,152.80 (Kuebler share = $14,030)
   - Type: Internal
   - Purpose: This award provided seed-funds for a new project exploring methods to prevent corrosion in near-earth orbit.

9. "Sub-Contract to UCF for AFOSR-STTR Phase 2 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 Phase-2 contract #FA864920C0316, funded for proposal #F2-12937 submitted by EMA with UCF in response to DOD BAA AF19A-T017, "Tunable bioinspired spatially-varying random photonic crystals."
   - Grant #: FA8651-19-P-0110
   - UCF ID#: FP00000346
   - Start date: 9/9/2020
   - End date: 06/30/2023
   - Amount: $225,003
   - Type: External
   - Purpose: The objective is to develop fundamental understanding of the structure-property relationships of bio-inspired 3D integrated photonic devices.

10. "Development and Validation of Design-Tools for Meta-Optics"
    - PI: Stephen M. Kuebler (100%)
    - Agency: US Air Force Research Laboratory (AFRL)
    - Grant #: FA8651-19-1-0003 P00003
    - UCF ID#: FP00002055
    - Start date: 09/28/2020

End date: 12/31/2023
Amount: $300,000
Type: External
Purpose: This project funds the development and experimental validation of a first-generation tool for designing and simulation performance of planar and volumetric meta-optics.

11. "Institutional Transformation: Intersections of Moral Foundations and Ethics Frameworks in STEM Enculturation"
PI: Jonathan Beever (40%)
Co-PI: Stephen Kuebler (25%), Laurie Pinkert (30%), Elizabeth Klonoff (5%)
Agency: NSF
Start date: 09/1/2020
End date: 08/31/2025
Amount: $599,301 (Kuebler share = $149,825)
Grant#: 2024296
UCF ID#: FP00000803
Type: External
Purpose: This institutional, limited-submission project will establish a campus wide research program to study how individuals' moral compass affects their recruitment to and enculturation into STEM professions.

12. "CHIPS: Controlled Heterogeneity in Photonic Systems"
PI: Stephen M. Kuebler (100%)
Agency: US Air Force Research Laboratory (AFRL)
Grant #: FA8651-19-1-0003 P00002
UCF ID#: 0000007574
Start date: 11/30/2020
End date: 12/31/2021
Amount: $39,999
Type: External
Purpose: This project funds an exploration of how controlled random defects introduced into photonic crystals affect the property of self-collimation, sensitivity to angle of input, and bandwidth response.

13. "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: 12/31/2023
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.

14. "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.

15. "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.

16. "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: 07/14/2022
Amount: $16,000 (Kuebler share = $13,120)
Grant#: 1834350
UCF ID#: 1065540
Type: External
Purpose: This award provided funds for two undergraduate researchers.

17. "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.

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

| | |
|---|---|
| Student: | 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 for 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. |

19. "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. |

20. "Collaborative Research: Photon Funnels − 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: | 07/14/2022 |
| Amount: | $225,814 (Kuebler share = $182,458) |
| Grant#: | 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."<br><br>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).<br><br>**Kuebler serves as PI for the overall collaborative project, valued in total at $400,049**. |

21. "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.

22. "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.

23. "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.

24. "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.

25. "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.

26. "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.

27. "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.

28. "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.

29. "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.

30. "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.

31. "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.

32. "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.

33. "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.

34. "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.

35. "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.

36. "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.

37. "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.

38. "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.

39. "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.

40. "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.

41. "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.

42. "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.

43. "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.

44. "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.

45. "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.

46. "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.

47. "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 = $2,000)
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).

48. "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).

49. "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).

50. "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).

51. "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.

52. "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† (*as of 16 May 2022*)

***54 peer-reviewed publications in total.***

Per Google Scholar: Total citations = 6036 citations; *h*-index = 24;
i10-index = 45 (# of publications with 10 or more citations);

Per ISI Web-of-Science: Total citations = 4169; *h*-index = 21.‡
‡*With paper under "Klueber" (40 citations)*

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

*Indicates corresponding author and primary investigator (PI).

Solid underline indicates graduate co-author.

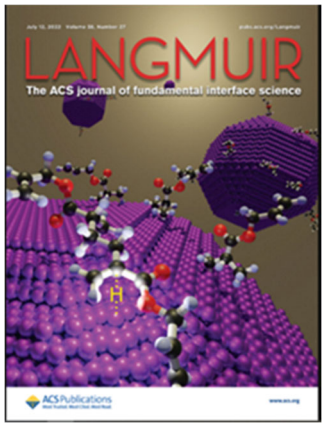
Dashed underline indicates undergraduate co-author.

Double underline indicates high-school co-author.

54. M. Sun, P. Golvari, **S. M. Kuebler** and P. G. Kik*. "Experimental demonstration of light-trapping transparent electrode geometries." *ACS Photonics* **2023**, 10, 595-600, https://doi.org/10.1021/acsphotonics.2c01468 (9 Feb 2023).

53. M. Sun, H. Cheng, P. Golvari, **S. M. Kuebler**, X. Yu*, and M. Zhang. "Modeling of two-photon polymerization in the strong-pulse regime." *Additive Manuf.* **2022**, 60A, 103241-1 - 103241-12, https://doi.org/10.1016/j.addma.2022.103241.

52. P. Golvari, K. Alkameh, **S. M. Kuebler***. "Si-H surface groups inhibit methacrylic polymerization: Thermal hydrosilylation of allyl methacrylate with silicon nanoparticles." *Langmuir* **2022**, 38(27), 8366-8373, https://doi.org/10.1021/acs.langmuir.2c00891. **This work was featured on the Journal's cover**.




51. C. Xia, E. Bustamante, **S. M. Kuebler***, R. C. Rumpf and J. Touma. "Binary-lens-embedded photonic crystal based on self-collimation." *Opt. Lett.* **2022**, 47(12), 2943-2946; https://doi.org/10.1364/OL.458854.

50. C. Xia, J. J. Gutierrez, **S. M. Kuebler***, R. C. Rumpf, J. Touma. "Cylindrical-lens-embedded photonic crystal based on self-collimation." *Opt. Express* **2022**, 30, 9165-9180, https://doi.org/10.1364/OE.452467.

49. H. Cheng, P. Golvari, C. Xia, M. Sun, M. Zhang, **S. M. Kuebler**, X. Yu*. "High-throughput microfabrication of axially tunable helices." *Photonics Res.* **2022**, 10, 303-315; https://doi.org/10.1364/PRJ.439592. **This paper was selected as an *Editor's Pick*.**

48. R. Sharma, J. L. Digaum, H. West, C. M. Schwarz, and **S. M. Kuebler***, "Gentle method for removing metal and restoring function after scanning electron microscopy," *J. Micro/Nanopattern., Mater. Metrol.* **2021**, 20(2), 023601-1 - 023601-11; https://doi.org/10.1117/1.JMM.20.2.023601.

47. P. Golvari and **S. M. Kuebler***, "Fabrication of functional microdevices in SU-8 by multi-photon lithography." *Micromachines* **2021**, 12(5), 472-1 - 472-24; https://doi.org/10.3390/mi12050472.

46. C. Xia, **S. M. Kuebler***, N. P. Martinez, M. Martinez, R. C. Rumpf, and J. Touma, "Wide-band self-collimation in low refractive index hexagonal lattice." *Opt. Lett.* **2021**, 46(9), 2228-2231, https://doi.org/10.1364/OL.421860.

45. J. Beever*, **S. M. Kuebler**, and J. Collins, "Where ethics is taught: An institutional epidemiology." *Intl. J. Ethics Educ.*, **2021**, 121, 1-24; https://doi.org/10.1007/s40889-021-00121-7.

44. H. Cheng, C. Xia, **S. M. Kuebler**, P. Golvari, M. Sun, M. Zhang, X. Yu*. "Generation of Bessel-beam arrays for parallel fabrication in two-photon polymerization." *J. Laser Appl.* **2021**, 33, 012040-1 - 012040-6; https://doi.org/10.2351/7.0000313.

43. C. M. Schwarz,* **S. M. Kuebler**, C. Rivero-Baleine, B. Triplett, M. Kang, Q. Altemose, C. Blanco, K. A. Richardson, Q. Du, S. Deckoff-Jones, J. Hu, Y. Zhang, Y. Pan, C. Ríos. "Structurally and morphologically engineered chalcogenide materials for optical and photonic devices." *J. Opt. Microsys.* **2021**, 1(1), 013502-1 - 013502-13; http://dx.doi.org/10.1117/1.JOM.1.1.013502. **This paper was profiled in an SPIE Highlight dated 13 July 2021,** https://spie.org/news/seeing-glass-in-a-new-light?SSO=1.

42. H. Cheng, C. Xia, **S. M. Kuebler** and X. Yu.* "Aberration correction for SLM-generated Bessel beams propagating through tilted interfaces." *Opt. Commun.* **2020**, 475, 126213-1 - 126213-6, https://doi.org/10.1016/j.optcom.2020.126213.

41. H. Cheng, C. Xia, M. Sun, M. Zhang, **S. M. Kuebler** and X. Yu*. "Micro- and nano-fabrication using Bessel-beam activated photopolymerization." *J. Laser Appl.* **2020**, 32, 022067-1 - 022067-7, (https://doi.org/10.2351/7.0000079).

40. C. M. Schwarz*, M. Kang, Q. Altemose, K. Raichle, B. Schnable, C. Grabill, J. Rice, M. Truman, C. Pantano, I. Mingareev, C. Rivero-Baleine, K. A. Richardson, **S. M. Kuebler**. "Processing and properties of novel ZnO-$Bi_2O_3$-$B_2O_3$ glass-ceramic nanocomposites." *J. Alloys Compounds* **2020**, 820, 153173-1 - 153173-9. (https://doi.org/10.1016/j.jallcom.2019.153173).

39. 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).

38. 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).

37. 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).

36. 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 multi-photon lithography." *J. Micro/Nanolithog., MEMS, MOEMS* **2017**, 16(2), 023508-1 - 023508-11. (http://nanolithography.spiedigitallibrary.org/article.aspx?articleid=2634098&resultClick=1).

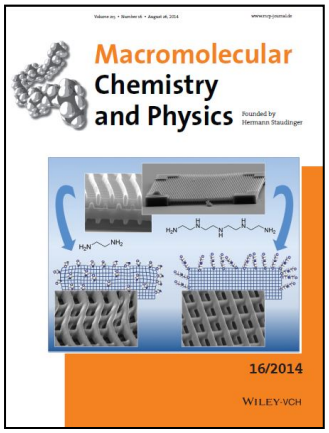
35. H. E. Williams, C. Diaz, G. Padilla, F. E. Hernandez, **S. M. Kuebler***. "Order of multiphoton excitation of sulfonium photo-acid generators used in photoresists based on SU-8." *J. Appl. Phys.* **2017**, 121, 223104-1 - 223104-12. (http://dx.doi.org/10.1063/1.4984828).

34. 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).

33. 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).

32. 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).

31. **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**.




30. 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.

29. Z. Luo and **S. M. Kuebler***. "Axial superresolution of focused radially polarized light using diffractive optical elements." *Opt. Commun.*, **2014**, 315, 176-182.

28. 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.

27. 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.

26. **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.

25. D. Restrepo, K. E. Lynch, K. Giesler, **S. M. Kuebler**, and R. Blair*. "Low-temperature (210 ºC) deposition of crystalline germanium via in situ disproportionation of $GeI_2$." *Mater. Res. Bull.*, **2012**, 47, 3484-3488.

24. 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.

23. 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.

22. 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.

21. T. G. Jabbour and **S. M. Kuebler***. "Vectorial beam shaping." *Opt. Express*, **2008**, 16(10), 7203-7213.

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.

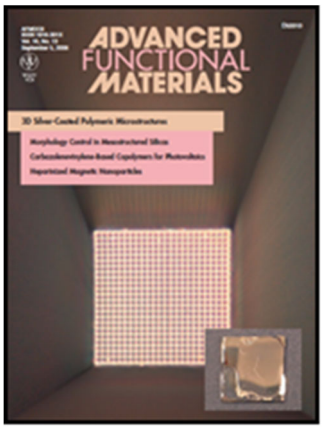
19. A. Tal, Y.-S. Chen, H. E. Williams, R. C. Rumpf, and **S. M. Kuebler***, "Fabrication and characterization of three-dimensional copper metallodielectric photonic crystals," *Opt. Express* **2007**, 15, 18283-18293.

18. 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.

17. 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.

16. T. G. Jabbour and **S. M. Kuebler***. "Axial field shaping under high numerical aperture focusing." *Opt. Lett*. **2007**, 32, 527-529.

15. 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.**




14. 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.

13. 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.

12. **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.

11. 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.

10. 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.

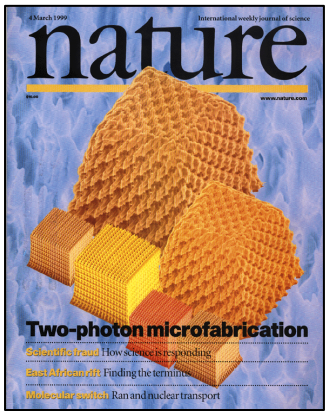
9. W. Zhou, **S. M. Kuebler**, D. Carrig, J. W. Perry, and S. R. Marder*. "Efficient photoacids based upon triarylamine dialkylsulfonium salts." *J. Am. Chem. Soc.* **2002**, 124(9), 1897-1901.

8. 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.

7. **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.

6. **S. M. Kuebler**, R. G. Denning*, and H. L. Anderson. "Large third-order electronic polarizability of a conjugated porphyrin polymer." *J. Am. Chem. Soc.* **2000**, 122, 339-347.

5. 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. **This work was featured on the Journal's cover**.




4. 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.

3. **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.

2. 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.

1. 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.

**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 PROVISONAL 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, **S. M. Kuebler**, N. P. Martinez, and C. L. Valle. "Spatially variant photonic crystal apparatus, methods, and applications." US patent no. 10,824,045, assigned to Board of Regents, The University of Texas System and University of Central Florida Research Foundation, Inc. Filed on 17 Jun 2016 as provisional patent application no. 62/351565. Patent awarded on 3 Nov. 2020.

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 CONFERENCE PRESENTATIONS

1. H. Cheng, P. Golvari, C. Xia, M. Sun, M. Zhang, **S. M. Kuebler**, X. Yu*. "Volumetric microfabrication of helical structures for industrial applications (Invited Paper)." Novel Patterning Technologies 2022 (Conf. 12054), held as part of the 2022 SPIE Advanced Lithography and Patterning meeting (San Jose, CA, USA, 24 - 28 Apr. 2022); https://doi.org/10.1117/12.2614703.

2. H. Cheng, P. Golvari, C. Xia, M. Sun, M. Zhang, **S. M. Kuebler**, X. Yu*. "Rapid microfabrication of helical structures for industrial applications." Photonics West 2022: Advanced Fabrication Technologies for Micro/Nano Optics and Photonics XV (San Francisco, CA, 22-27 Jan. 2022), SPIE, Vol. 12012, pp. 1201205-1 - 1201205-8; https://doi.org/10.1117/12.2608940.
***This presentation by graduate student He Cheng was awarded Best Student-Paper***.

3. **S. M. Kuebler***, A. Cockerham, S. Shariar, C. Xia, M. McMahon, R. C. Rumpf, J. J. Gutierrez, N. P. Martinez, E. Bustamente, J. Pazos and J. Touma. "Better optics through imperfection." Invited

paper presented at 2021 IEEE Research and Applications of Photonics in Defense (RAPID) (2-4 Aug 2021, Virtual conference), IEEE, Bioinspired and Bioprincip Technologies, MD1.2; https://ieee-rapid.org/wp-content/uploads/sites/5/2021/10/RAPID-2021-Full-Program-Danielle-Corrigan.pdf.

4. **S. M. Kuebler**. "Advances in 3D printing functional nano-photonic devices by multi-photon lithography." Invited paper presented at "Cope Scholar Symposium in honor of Seth Marder: Development of Organic Semiconductor Materials," held as part of the 71st Southeastern Regional Meeting of the American Chemical Society (20-23 Oct. 2019, Savannah, GA).

5. **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." Invited paper presented at 2019 Research and Applications of Photonics in Defense (RAPID, 19 – 21 August 2019, Hilton Sandestin Beach Golf Resort, Miramar Beach, FL, USA), IEEE.

6. **S. M. Kuebler*** and J. Beever. "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.

7. **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.

8. **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.

9. **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.

10. **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.

11. 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.

12. 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.

13. **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.

14. 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).

15. 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).

16. **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.

17. **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).

18. **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.

19. **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.

20. **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).

21. **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).

22. **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, Greensville, SC).

23. **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.

24. **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).

25. **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).

26. **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.

27. **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.

28. **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.

**INVITED PRESENTATIONS at OTHER INSTITUTIONS**

1. **S. M. Kuebler**. "Functional devices created by laser-based nanoscale 3D printing." Invited lecture presented at Axogen corporate and research headquarters (Tampa, FL, 14 Dec. 2021) https://www.axogeninc.com/).

2. **S. M. Kuebler**. "Laser-based nanoscale 3D printing: Chemistries, materials, and functional optical devices." Invited departmental colloquium presented at Department of Chemistry, University of Georgia (3 Mar. 2020, Athens, GA).

3. **S. M. Kuebler**. "Functional optoelectronic devices created by laser-based nanoscale 3D printing." Invited lecture presented at Department of Electrical Engineering, University of South Alabama (21 Nov. 2019, Mobile, AL).

4. **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).

5. **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).

6. **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).

7. **S. M. Kuebler***, R. Sharma, J. L. Digaum, N. Kosan, 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).

8. **S. M. Kuebler***, R. Sharma, J. L. Digaum, N. Kosan, 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).

9. **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).

10. 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).

11. **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).

12. **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).

13. **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).

14. **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.

15. **S. M. Kuebler**. "Development and applications of multi-photon direct laser writing." IBM Almaden Research Center (25 Jan. 2008, Almaden, CA).

16. **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).

17. **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.

18. 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.

**PUBLISHED CONFERENCE PAPERS and PROCEEDINGS**

1. L. Taylor*, L. A. Pinkert, J. Beever, **S. Kuebler**, E. Klonoff. "Disciplinary leaders' perceptions of ethics: An interview-based study of ethics frameworks." Contributed paper presented by Kuebler at the ASEE 2022 Annual Conference: Excellence through Diversity (Minneapolis, MN, 26-29 Jun.

2022), international presentation.

2. C. Xia, J. J. Gutierrez, **S. M. Kuebler***, R. C. Rumpf and J. Touma. "Cylindrical-lens-embedded photonic crystal based on self-collimation." Contributed paper presented by Kuebler 2022 IEEE Research and Applications of Photonics in Defense Conference (RAPID) (12 - 14 Sept 2022, Miramar Beach, FL), IEEE, pp. WD1.4-1 - WD1.4-2, https://ieeexplore.ieee.org/document/9911541.

3. S. Shahriar, J. J. Pazos, R. Howell, D. Aguilar, **S. M. Kuebler***, T. Morales and J. Touma. "Morpho butterfly-inspired sensors created by multi-photon polymerization." Contributed paper presented by Shahriar 2022 IEEE Research and Applications of Photonics in Defense Conference (RAPID) (12 - 14 Sept 2022, Miramar Beach, FL), IEEE, pp. TuF3.3-1 - TuF3.3-2, https://ieeexplore.ieee.org/document/9911536.

4. C. L. Horton, **S. M. Kuebler***, M. Martinez, E. Bustamante, R. C. Rumpf and J. Touma. "Design and fabrication of a metalens with a hexagonal array of intersecting-wall meta-atoms for operation in the near-infrared." Contributed paper presented by Horton 2022 IEEE Research and Applications of Photonics in Defense Conference (RAPID) (12 - 14 Sept 2022, Miramar Beach, FL), IEEE, pp. TuF2.4-1 - TuF2.4-2, https://ieeexplore.ieee.org/document/9911569.

5. A. Cockerham, C. Xia, **S. M. Kuebler*** and J. Touma. "Simulating optical response of disordered photonic crystals using the discrete Fourier transform." Contributed paper presented by Cockerham 2022 IEEE Research and Applications of Photonics in Defense Conference (RAPID) (12 - 14 Sept 2022, Miramar Beach, FL), IEEE, pp. TuF2.5-1 - TuF2.5-2, https://ieeexplore.ieee.org/document/9911606.

6. H. Cheng, P. Golvari, C. Xia, M. Sun, M. Zhang and **S. M. Kuebler***. "High-throughout volumetric microfabrication with structured light." Contributed paper presented by Kuebler 2022 IEEE Research and Applications of Photonics in Defense Conference (RAPID) (12 - 14 Sept 2022, Miramar Beach, FL), IEEE, pp. WD1.6-1 - WD1.6-2, https://ieeexplore.ieee.org/document/9911556.

7. J. Beever and **S. M. Kuebler**. "Mapping the institutional epidemiology of ethics." Paper presented at the 31st Annual International Conference of the Association for Practical and Professional Ethics (24-27 Feb. 2022, Cincinnati, OH), Association for Practical and Professional Ethics; https://onlineethics.org/cases/appe-2021-annual-meeting-flash-talks/where-ethics-taught-institutional-epidemiology, international presentation.

   ***This paper was awarded the Clifford G. Christians Ethics Research Award on 26 Feb. 2022 by the Association for Practical and Professional Ethics (APPE). "This is one of the highest awards presented by the Association and represents a significant milestone in academic achievement."***

8. C. Xia, **S. M. Kuebler***, N. P. Martinez, M. Martinez, R. C. Rumpf, J. Touma. "Wide-band self-collimation in low refractive index hexagonal lattice." Photonics West 2022: Photonic and Phononic Properties of Engineered Nanostructures XII (San Francisco, CA, 22-27 Jan. 2022), SPIE, vol. 12010, pp. 1201004-1 - 1201004-5; https://doi.org/10.1117/12.2608627, international presentation.

9. **S. M. Kuebler***, J. Beever and L. Pinkert. "Curricular structure for teaching ethical and professional conduct in optics and photonics." Contributed paper presented at Paper W4A.3 presented in session "Curriculum Development and Improvement in Optics and Photonics I," held as part of the 2021 "Education and Training in Optics & Photonics" conference. (8-10 Sept. 2021, Virtual event), Optical Society of America, international presentation.

10. H. Cheng, C. Xia, **S. M. Kuebler**, P. Golvari, M. Sun, M. Zhang and X. Yu. "Generation of Bessel-

beam arrays for parallel fabrication in two-photon polymerization." NANO 3: Custom Nanomanufacturing, a conference held as part of the 39th International Congress on Applications of Lasers & Electro-Optics (ICALEO) (19-20 Oct. 2020, Held remotely), Laser Institute of America, p. NANO 302, international presentation.

11. C. Xia, **S. M. Kuebler***, N. P. Martinez, M. Martinez, R. C. Rumpf and J. Touma. "Experimental demonstration of broadband self-collimation effect in 3D hexagonal lattice fabricated using a low-refractive-index polymer." Contributed paper presented at 2020 IEEE Research and Applications of Photonics in Defense Conference (RAPID) (10 - 12 Aug 2020, Virtual conference), IEEE, p. TuD3.4, https://ieee-rapid.org/program/.

12. 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.

13. 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.

14. **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.

15. 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.

16. 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 $As_2S_3$ and $Ge_5(As_2Se_3)_{95}$ 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.

17. 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.

18. **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.

19. 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.

20. 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.

21. **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.

22. 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.

23. 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.

24. **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.

25. **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.

26. 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.

27. 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.

28. **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.

29. **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.

30. 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.

31. 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.

32. 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.

33. 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.

34. **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.

35. **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.

36. 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.

37. 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.

38. 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.

39. **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.

40. 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.

41. 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.

42. **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.

43. 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.

**CONTRIBUTED CONFERENCE PRESENTATIONS**

1. D. Aguilar, S. Shahriar, T. Morales, R. Howell, **S. M. Kuebler*** and J. J. Pazos. "Bio-inspired gas sensors fabricated by multiphoton lithography." Poster presented by Desiree UCF Summer Research Showcase (22 July 2022, Orlando, FL).

2. K. Alkameh, P. Golvari, and **S. M. Kuebler***. "Solution and solid-state hydrosilylation of functional alkenes using Pt(dvs)." Poster UCF Student Scholar Symposium (28 Mar 2023, Orlando, FL).

3. K. Alkameh, P. Golvari, and **S. M. Kuebler***. "Solution and solid-state hydrosilylation of functional alkenes using Pt(dvs)." Poster NanoFlorida conference (5 Mar 2023, Orlando, FL).

4. K. Alkameh, P. Golvari, and **S. M. Kuebler***. "Hydrosilylation of allyl methacrylate with silicon nanoparticles using Karstedt's catalyst." Poster Florida Undergraduate Research Conference (18 Feb 2023, Miami, FL).

5. P. Golvari, **S. M. Kuebler*** and J. Touma. "A facile method for selective deposition of metal nanoparticles into nanohole arrays for recyclable plasmonic sensors." Contributed poster presented at Fall 2022 National Meeting of the Materials Research Society, Materials Research Society (25 Nov. - 2 Dec. 2022, Boston, MA, USA), Materials Research Society, international presentation.

6. P. Golvari, K. Alkameh and **S. M. Kuebler***. "Silicon nanoparticles as solid-state inhibitors for

methacrylic autopolymerization." Contributed paper presented at Fall 2022 National Meeting of the Materials Research Society, Materials Research Society (25 Nov. - 2 Dec. 2022, Boston, MA, USA), Materials Research Society, international presentation.

7. H. Cheng, P. Golvari, M. Sun, M. Zhang, **S. M. Kuebler** and X. Yu*. "Single-shot microfabrication of complex 3D structures by volumetric multiphoton lithography." Contributed paper presented at Fall 2022 National Meeting of the Materials Research Society, Materials Research Society (25 Nov. - 2 Dec. 2022, Boston, MA, USA), Materials Research Society, international presentation.

8. P. Golvari, K. Alkameh and **S. M. Kuebler***. "Hydrosilylation of methacrylates with silicon nanoparticles: The inhibitory effect of H-Si surface groups on thermal auto-polymerization." Contributed paper presented at Fall 2022 Meeting of the American Chemical Society (21-26 Aug. 2022, Chicago, IL), https://doi.org/10.1021/scimeetings.2c01031, international presentation.

9. K. Alkameh, P. Golvari, and **S. M. Kuebler***. "Hydrosilylation of allyl methacrylate with silicon nanoparticles using Karstedt's catalyst." Poster UCF Summer Research Showcase (22 July 2022, Orlando, FL).

10. J. J. Pazos*, S. Shahriar, **S. M. Kuebler** and J. E. Touma. "Bioinspired microstructures for optical detection of vapors." Paper presented at META2022: 12th International Conference on Metamaterials, Photonic Crystals and Plasmonics (19 - 22 Jul 2022, Torremolinos, Spain), international presentation.

11. N. P. Martinez, C. Xia, **S. M. Kuebler** and R. C. Rumpf*. "Photon funnel design based on spatially variant self-collimating photonic crystals." Poster presented at FiO 1: Fabrication, Design and Instrumentation, a conference held as part of presented at Frontiers in Optics + Laser Science (31 Oct. - 4 Nov. 2021, Rochester, NY), Optica, international presentation.

12. J. Beever*, **S. M. Kuebler**, L. Pinkert, L. Taylor. "Faculty perspectives on frameworks of responsibility in their disciplines." IEEE Society on Social Implications of Technology, Technological Stewardship & Responsible Innovation, University of Waterloo and University of Guelph. (29 Oct 2021, virtual conference), IEEE, international presentation.

13. A. Ferguson, M. Plocica, J. Jarvis, B. Naumann, J. Chang, **S. Kuebler** and N. Takenaka*. "Biannual Inter-chapter speaker series to foster professional development and inter-chapter relations." Contributed poster CHED# 3545622 presented at Spring 2021 National Meeting of the American Chemical Society, Division of Chemical Education (CHED) (5 Apr. - 30 Apr. 2021, Virtual meeting), American Chemical Society, international presentation.

14. J. Beever, **S. M. Kuebler**, J. Gonzalez. "A sense of ethics ownership: Graduate student perceptions of ethics at a research institution." Twenty-Ninth Annual Conference of the Association for Practical and Professional Ethics (Atlanta, GA, 20 - 23 February 2020), international presentation.

15. **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.

16. **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.

17. **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.

18. **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.

19. 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.

20. 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.

21. 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).

22. **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.

23. 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.

24. 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-$Bi_2O_3$-$B_2O_3$ glass." Contributed paper presented at 2018 SPIE Defense and Commercial Sensing (15-19 April 2018, Orlando, FL), SPIE, Vol. 10627, pp. 106270O-1 - 106270O-8, https://doi.org/10.1117/12.2304446, international presentation.

25. 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-$Bi_2O_3$-$B_2O_3$ 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.

26. 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).

27. 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.

28. 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.

29. 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).

30. 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.

31. 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, Gainsville, FL).

32. 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.

33. 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.

34. 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).

35. 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).

36. 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.

37. **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.

38. 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).

39. **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.

40. 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.

41. 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.

42. 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, Gainsville, FL).

43. 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).

44. 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, Gainsville, FL).

45. 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, Gainsville, FL).

46. 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, Gainsville, FL).

47. **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.

48. 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).

49. 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).

50. 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).

51. **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.

52. 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.

53. 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).

54. 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.

55. **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.

56. 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, Gainsville, FL).

57. 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, Gainsville, FL).

58. **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.

59. 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, Gainsville, FL).

60. **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.

61. **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.

62. **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).

63. 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).

64. 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.

65. 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.

66. 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.

67. 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.

68. 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.

69. **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.

70. 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.

71. 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.

72. 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.

73. 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.

74. 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.

75. **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).

76. 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.

77. 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.

78. 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.

79. 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).

80. 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.

81. 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.

82. 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.

83. 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.

84. 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.

85. 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.

86. 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.

87. **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.

88. 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.

89. 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.

90. 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.

91. **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.

92. **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.

93. **S. M. Kuebler** and R. G. Denning. "Population grating effects in studies of $NiS_4C_4Ph_2Bu_2$ 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.

94. **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).

95. **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. "Seeing glass in a new light." In *SPIE News*, **2021** (https://spie.org/news/seeing-glass-in-a-new-light): SPIE Highlight of research reported in C. M. Schwarz, **S. M. Kuebler**, et al., "Structurally and morphologically engineered chalcogenide materials for optical and photonic devices." *J. Opt. Microsys.* 2021, 1 (1), 013502-1 - 013502-13.

2. **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).

3. **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); and

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

4. **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).

5. **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).

6. **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.

7. **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).

8. **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.

9. **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. Chris Randles | Asst. Prof. Chem, UCF | 2022 - present |
| 2. | Dr. Denisia Popolan-Vaida* | Asst. Prof. Chem., UCF | 2018 - present |
| 3. | Dr. Matthieu Baudelet | Asst. Prof. Chem. & Forensic Sci., UCF<br>Promoted to Assoc. Prof. in 2021 | 2018 – 2021 |
| 4. | Dr. Jonathan Beever | Asst. Prof. Philosophy<br>Promoted to Assoc. Prof. in 2021 | 2017 – 2021 |

**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*)

***4 post-doctoral scholars trained in total.***

| | | | |
|---|---|---|---|
| 1. | Dr. Shaimum Shahriar | PhD., Univ. Texas El Paso | 2021 - present |
| 2. | Dr. Casey Schwarz* | PhD., UCF<br>Tenured associate professor of Physics, Ursinus Coll. (Collegeville, PA)<br>Chair of Physical Sciences, Ursinus Coll. (Collegeville, PA) | 2013 - 2016 |
| 3. | Dr. Ananthakrishnan Narayanan | PhD., Auburn<br>Cree, Inc., Durham, NC (2011 - 2015)<br>Reliability eng. manager, Phononic, Inc., Raleigh-Durham, NC (2015 - present) | 2010 - 2011 |
| 4. | Dr. Ivan Divliansky | PhD, Penn. State<br>Now a Research Scientist, CREOL, UCF | 2004 - 2005 |

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

***6 PhDs and 12 MS students graduated in Chemistry or Optics.***
***24 graduate students trained in total, across multiple disciplines.***

1. Tyrone Morales — MS in Optics and Photonics — 2022 - present
2. Alexander Cockerham — PhD in optics — 2021 - present
   - ORC Graduate Fellow
3. Chad Horton — PhD in chemistry — 2021 - present
4. Pooria Golvari — PhD in chemistry — 2018 - present
   MS in chemistry, spr. 2022
   - ORC Graduate Fellow
5. Lakelyn Taylor* — PhD in commun., spr. 2023 — 2021 - 2023
   - GRA on NSF-funded project #2024296.
6. Allison Banzon* — PhD in Education — Spr 2022 - Sum 2022
   - GRA on NSF-funded project #2024296.
7. Jen Crowell* — PhD in Texts & Technol. — Summer 2021
   - GRA on NSF-funded project #2024296.
8. Emily LaPadura* — PhD in Texts & Technol. — Summer 2021
   - GRA on NSF-funded project #2024296.
9. Chun Xia — PhD in Optics — Grad summer 2022
   MS in Optics — Spring 2021
   - Doctoral Research Support Award — Fall 2018
     (Coll. Graduate Studies, UCF; $1,250 for travel).
   - ORC Graduate Fellow
   - Engineer at Intel Corporation (2022)
10. Geng Yang — MS in Optics & Photonics — 2020
11. Rashi Sharma* — PhD in Chem. — Grad. fall 2018
    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)
    - Adjunct instructor, UCF (fall 2022)
12. 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)
13. Ali Mesbahi — PhD candidate in Chem. — 2016 - 2017
    - Continuing toward PhD. in Chemistry at UCF
14. Greg Miller — PhD candidate in Chem. — 2016 - 2017
    - Moved to group of Dr. Andres Gesquiere before leaving UCF program.

- Uknighted Chemistry Grad. Student Assoc. Member of the Year (UCF, spring 2017)

15. 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)
16. Dr. Henry Williams* — PhD in Chemistry — Grad. fall 2013 — NanoSpective, Orlando, FL
17. Ali Ozcan — MS in Chemistry — Grad. spr. 2013
    - PhD. cand. at UCF
18. Dr. Zhenyue Luo — PhD candidate in Optics — 2010 - 2012 — Apple
19. Kristen Lynch* — MS in Chemistry — Grad. fall 2011 — Lockheed-Martin
    MS Mater. Sci. Eng. — Grad. fall 2012
20. Rahul Hegishte — MS in Industrial Chemistry — Grad. spr. 2011 — Univ. Pune
21. Marco A. Melino — MS in Optics — Grad. spr. 2010 — DomesticTree.com
22. Dr. Toufic G. Jabbour — PhD in Optics — Grad. fall 2009 — Zeiss
23. Amir Tal — MS in Optics — Grad. sum. 2007 — Jenoptik
    - Promoted to Manufacturing Engineering Manager (Jenooptik, 2022).
24. Dr. Yun-Sheng Chen — MS in Optics — Grad. spr. 2008 — Stanford
25. Dr. Yigit Ozan Yilmaz — MS in Optics — Grad. fall 2006 — Intel

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

***65 undergraduate researchers trained in total.***

1. Madigan Roozen* — BS in Optics — 2022 – present
   - EXCEL fellow (Spr & sum '22)
2. Grace Guerdouar* — BS in philosophy — 2022 – present
   - Undergraduate intern with Center for Ethics
3. Victor Milanes* — BS — 2022 - present
   - Undergrad researcher on NSF-funded ethics project #2024296.
4. Eva Vazquez* — BS Psychology — 2021 - present
   - Undergrad researcher on NSF-funded ethics project #2024296.
5. Desiree Aguilar* — BS in Chemistry — 2021 - present
   - Summer Undergraduate Research Fellowship (2022)
6. Khaled Alkameh* — BS in Health Sciences — 2021 - present
   - Summer Undergraduate Research Fellowship (2022)
7. Matthew Carlton — BS in Chemistry, spr 2023 — 2022 - 2023
8. Michael McMahon — BS in Optics, spr 2022 — 2021 - 2022
   - Research Fellow, X-Force, National Security Innovation Network ('22)
9. Westley Hunter — BS Criminal Justice — 2021 - 2022
   - Undergrad researcher on NSF-funded ethics project #2024296.

10. Fatima Hussain* — BS Psychology, clinical track — 2021 - 2022
    - Undergrad researcher on NSF-funded ethics project #2024296.
11. Andrew Dremann — BS in Health Sciences — 2021 - 2022
    - Summer Undergraduate Research Fellowship (2022)
12. Tyrone Morales* — BS in Optics — 2022
13. Alex Cockerham — BS in Chem. and Biomolec. Sci. (2021) — Fall 2017 - present
    - Burnett Research Scholar award, UCF (fall 2017)
14. Robin Howell* — BS in Optics (2021) — Spring 2022
    - Optics Engineer 1 with JenaOptik
15. Jordan Collins* — BS, Comp. Sci. — 2018 - 2020
16. Grant Biehler — BS in Chem. — Sum 2018 - 2019
17. Hannah West* — BS in Optics, UCF — Fall 2017 - 2019
    - Internship at Harris Corp. (summer 2018)
18. Mark Gaspich — BS in Chemistry, UCF — Fall 2017 - 2019
19. Rohit Karnati — BS in Chemistry, UCF — Fall 2017 - Fall 2018
20. Christopher Kosan — BS in Mech. Eng., UCF — Fall 2016 - Spring 2018
21. 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)
    - Awarded NASA-NSTGRO (spring 2021)
22. Jordyn White* — BS in Chemistry, UCF — Fall 2017 - Spring 2018
23. Robert Katims — BS in Chemistry, UCF — Spr 2015 - Spr 2017
24. Jayk Barker* — BS in Mech. Eng. — Sum 2015 - Sum 2016
25. Janzen Fallgren — BS in Chemistry, UCF — Sum 2016 - Fall 2016
26. Ryan Sapia — BS in Chemistry, UCF — Sum 2015 - Sum 2016
    - RAMP fellowship, UCF (fall 2015)
    - PhD candidate, UCF Chemistry (fall 2016)
27. Evan Duga — BS in Chem., UCF — Spring 2017
28. Daniel Batista* — BS in Optics, UCF — Fall 2014 - fall 2015
    - Burnett Research Scholars Fellowship, UCF (summer 2015)
29. Lauren Gandy* — BS in Forensic Science<br>BA in French — 2013 - 2016
    - 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)
30. Alec Brown — BS in Physics, UCF — Summer 2015
31. Christa Deeks* — BS in Chemistry, UCF — Summer 2015
32. Elizabeth Isaac* — BS in Chemistry, Otterbein College — Summer 2015
33. Shreya Labh* — BS in Chemistry, UCF — 2014 - 2015

- SURF, Summer Undergraduate Research Fellowship, UCF (2014)

34. Jeremy Thomas — BS in Physics, Andrews Univ. — Summer 2014
35. 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.
36. 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)
37. Gabriel Padilla* — BS in Chemistry, UCF — 2012 - 2014
    - McNair Scholar, UCF (2013)
38. Daniel Freppon — BS in Chemistry, UCF — 2008 - 2013
    - MS in Chemistry, Iowa State Univ.
    - R&D Physicist, UbiQD, Los Alamos
39. Drew Hanson — BS in Chemistry, UCF — 2012 - 2013
40. Jose Jerez* — BS Engineering, UCF — 2013
    (Mentee, UCF LEARN program)
41. Dalibor Todorovski — BS Engineering, UCF — 2013
    (Mentee, UCF LEARN program)
42. Adrian Tatulian — BS in Physics, UCF — 2013
43. Landon Meahl — BS in Physics — 2012
44. Kaley Wilburn* — BS in Microbiol/Molec. Biol. — 2012
45. Michelle Hettinger* — BS in Chemistry, UCF — 2011
46. 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)
47. Suliman Ayad — BS in Chemistry, UCF — 2011
48. Dale Karas — REU in Optics — Summer 2011
49. 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)
50. Amanda Dupuy* — BS in Forensic Science, UCF — 2008 - 2009
    - RAMP fellowship, UCF (2008)
51. Craig Ament — BS in Physics, UCF — 2008 - 2010
    - UCF SMART Fellowship (2008)
52. Michael Petrovich — BS in Computer Science, UCF — 2006 - 2007
53. Gregory Weaver — BS in Computer Science, UCF — 2005 - 2006
54. David "Britt" Torrance — BS in Physics, UCF — 2004 - 2006
    - RAMP fellowship, UCF (2005)

| | | |
|---|---|---|
| 55. Julien Fourez | CREOL-Intl. REU | Summer 2005 |
| 56. Meagan Giesler* | CREOL-REU | Summer 2005 |
| 57. Hiram Gonzales* | Nano/Engineering-REU | Summer 2005 |
| 58. Luciana Xavier* | BS in Physics, UCF | Summer 2005 |
| 59. Janneth Oleas* | NIH-Bridge Program | Summer 2005 |
| 60. Caleb Parnell-Lampen | NSF-REU at CREOL | Summer 2004 |
| 61. Forrest Ruhge | BS in Physics, UCF | Spring 2004 |
| 62. Amy Thompson* | NSF-REU at CREOL | Summer 2004 |
| 63. Daniel L. Huffman | BS in Chemistry | Summer 2004 |
| 64. Hubert P. Seigneur | BSE Comp. Eng., UCF | Summer 2004 |
| 65. Elbony Jones* | BS chem., UCF, 2004 | Spring 2004 |

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

| | | |
|---|---|---|
| 1. Lilly Nguyen* | Trinity Preparatory School | Fall 2021 |
| - Second place, Ying Science Expo, Sr. Div., Biomed. & Health Sci. | | |
| - Admitted to Brown Univ. Class of 2026 | | |
| 2. Casey Sun* | Hagerty High School, Oviedo, FL | Summer 2019 |
| 3. Trinity Johnson* | Circle Christian School, Winter Pk, FL | Summer 2018 |
| 4. Joel Perez* | Hagerty High School, Oviedo, FL | Summer 2017 |
| 5. Jonathan Sepulveda* | Hagerty High School, Oviedo, FL | 2016 - 2017 |
| 6. Aadit Vyas* | Hagerty High School, Oviedo, FL | 2014 - 2016 |
| - Outstanding High School Chemistry Student, Orlando ACS (2014) | | |
| - Went to Yale for undergraduate study (2016) | | |
| - Science consultant at Oliver Wyman (2020) | | |
| 7. Jayk Barker* | Hagerty High School, Oviedo, FL | Summer 2015 |
| 8. Johl Kapil | Seminole High School, Sanford, FL | Summer 2015 |
| 9. Amy-Grace Pothen* | Hagerty High School, Oviedo, FL | Summer 2013 |
| 10. Samantha Collins* | Hagerty High School, Oviedo, FL | Summer 2012 |
| 11. Vivek Kumar | Hagerty High School, Oviedo, FL | Summer 2011 |
| - Went to Univ. Florida for MBA | | |
| 12. Steven Wang | Seminole High School, Orlando, FL | Summer 2010 |
| - Went to Vanderbilt for undergraduate study (2011) | | |

## TEACHING

**DISSERTATION and SENIOR-PROJECT COMMITTEE SERVICE**

***96 students in total.***

| | | |
|---|---|---|
| 1. Rashandel Marjan | PhD in Chemistry | Advisor: Chris Randles |
| 2. Kara Strickland | PhD in Chemistry | Advisor: Jonathan Caranto |
| 3. Gabriel Padilla | PhD in Chemistry | Advisor: Jonathan Caranto |
| 4. Kaitlin Turner | BS in Chemistry | Advisor: Dr. Geng Yang |
| 5. Yuchen Cao | PhD in Elec. Eng. | Advisor: Kenle Chen |
| 6. Ectis Velazquez | PhD in Elec. Eng. | Advisor: Xun Gong' |
| 7. Aaron Holloway | BS Elec. Eng., spring 2023 | Sr. Design Project Team, spr 2023 |
| 8. Ajay Nattanmai | BS Elec. Eng., spring 2023 | Sr. Design Project Team, spr 2023 |
| 9. Elijah Peterman | BS Elec. Eng., spring 2023 | Sr. Design Project Team, spr 2023 |

| | | |
|---|---|---|
| 10. Malcolm Donaldson | BS Optics, spring 2023 | Sr. Design Project Team, spr 2023 |
| 11. Ryan Goff | BS Comp. Eng., spring 2023 | Sr. Design Project Team, fall 2022 |
| 12. Carlos Irizarry | BS Optics, spring 2023 | Sr. Design Project Team, fall 2022 |
| 13. Christopher Robertson | BS Comp. Eng., spring 2023 | Sr. Design Project Team, fall 2022 |
| 14. Ecclezias Senat | BS Elec. Eng., spring 2023 | Sr. Design Project Team, fall 2022 |
| 15. Michael McMahon | BS Optics, spring 2022 | Sr. Design Project Team, spring 2022 |
| 16. Daniel Valledor | BS Elec. Eng., spring 2022 | Sr. Design Project Team, spring 2022 |
| 17. Luis Carrillo | BS Elec. Eng., spring 2022 | Sr. Design Project Team, spring 2022 |
| 18. Michael Rogatisnky | BS Comp. Eng., spring 2022 | Sr. Design Project Team, spring 2022 |
| 19. Joshua Walton | BS Optics, spring 2022 | Sr. Design Project Team, spring 2022 |
| 20. Dylan Perkowski | BS Optics, spring 2022 | Sr. Design Project Team, spring 2022 |
| 21. Skyler Burns | BS Elec. Eng., spring 2022 | Sr. Design Project Team, spring 2022 |
| 22. Joshua Frazer | BS Comp. Eng., spring 2022 | Sr. Design Project Team, spring 2022 |
| 23. Remelisa Esteves | PhD, Aerospace Eng., spr 2023 | Advisor: Seetha Raghavan |
| 24. Saad Mehmood | PhD in Physics, summer 2022 | Advisor: Luca Argenti |
| 25. Mengdi Sun | PhD in Optics, spring 2022 | Advisor: Dr. Pieter Kik |
| 26. He Cheng | PhD in Optics, spring 2022 | Advisor: Dr. Xioaming Xu |
| 27. Junyi Huang | PhD in EE, summer 2021 | Advisor: Dr. Xun Gong |
| 28. Chenyi Zhang | PhD in Optics, spring 2021 | Advisor: Dr. Ryan Gelfand |
| 29. Arifur Rahaman | PhD in Optics, fall 2020 | Advisor: Dr. Xiaoming Yu |
| 30. Ricardo Lovato | PhD in EE, spring 2021 | Advisor: Dr. Xun Gong |
| 31. Erin Crites | BS in Physics, spring 2020<br>Honors in the Major | Advisor: Dr. Michael Chini |
| 32. Dr. Shima Gholam Mirzaei | PhD in Physics, spring 2020 | Advisor: Dr. Michael Chini |
| 33. Dr. Haiheng Ye | PhD in Chemistry, spring 2019 | Advisor: Dr. Xiaohu Xia |
| 34. Dr. Xuan Chen | PhD in Mater. Sci. Eng. | Advisor: Dr. Romaine Gaume |
| 35. Dr. Michael Trampler | PhD in EE, summer 2019 | Advisor: Dr. Xun Gong |
| 36. Dr. Wei Ouyang | PhD in EE, summer 2019 | Advisor: Dr. Xun Gong |
| 37. Ryan Heitz | BS Comp. Eng. | Sr. Design Project Team, spring 2019 |
| 38. Sandy Cline | BS in Optics | Sr. Design Project Team, spring 2019 |
| 39. Brian Ascencio` | BS Elec. and Comp. Eng. | Sr. Design Project Team, spring 2019 |
| 40. Shane Zweibach | BS Comp. Eng. | Sr. Design Project Team, spring 2019 |
| 41. Zarina Marie Balde | BS in Biomolec. Sci., fall 2018<br>Honors in the Major | Advisor: Dr. Debopam Chakrabarti |
| 42. Dr. Mahmoud Shirazi | PhD in EE, summer 2018 | Advisor: Dr. Xun Gong |
| 43. Dr. Mathew Logan | PhD in Chem., summer 2018 | Advisor: Dr. Fernando Uribe-Romo |
| 44. Dr. Alexander York | PhD in Math, summer 2018 | Advisor: Dr. Joseph Brennan |
| 45. Sam Benjamin | B.S. Optics | Sr. Design Project Team, fall 2017 |
| 46. Isaias Velez | B.S. Elec. Eng. | Sr. Design Project Team, fall 2017 |
| 47. Sommer Hilliard | B.S. Elec. Eng. | Sr. Design Project Team, fall 2017 |
| 48. Cary McEwan | B.S. Comp. Sci. | Sr. Design Project Team, fall 2017 |
| 49. Benjamin Stuart | B.S. Optics | Sr. Design Project Team, fall 2017 |
| 50. Garrett Bennett | B.S. Optics | Sr. Design Project Team, fall 2017 |
| 51. George Salinas | B.S. Comp. Sci. | Sr. Design Project Team, fall 2017 |
| 52. Zhitao Chen | B.S. Elec. Eng. | Sr. Design Project Team, fall 2017 |
| 53. Anthony J. Riggins | BS in Optics | Sr. Design Project Team, summer 2017 |
| 54. Jesus M. Marcano | BS in Elec. Eng. | Sr. Design Project Team, summer 2017 |
| 55. Jack A. Fenton | BS in Elec. Eng. | Sr. Design Project Team, summer 2017 |
| 56. Melissa J. Wetzel | BS inComp. Eng. | Sr. Design Project Team, summer 2017 |
| 57. Marielena Burdge | BS in Optics | Sr. Design Project Team, summer 2017 |
| 58. Mahmoud Elhady | BS in Elec. Eng. | Sr. Design Project Team, summer 2017 |

| | | |
|---|---|---|
| 59. James Tavil | BS in Civil Eng. | Sr. Design Project Team, summer 2017 |
| 60. Juan Palomino | BS in Civil Eng. | Sr. Design Project Team, summer 2017 |
| 61. Ms. Tianjiao Li | PhD in EE, spring 2017 | Advisor: Dr. Xun Gong |
| 62. Mr. Amjad Aman | PhD in MAE, fall 2016 | Advisor: Dr. Nina Orlovskaya |
| 63. Mr. Anthony Terracciano | PhD in MAE, fall 2016 | Advisor: Dr. Nina Orlovskaya |
| 64. Mr. Antoine Lepicard | PhD in Optics, fall 2016 | Advisor: Dr. Kathleen Richardson |
| 65. Sean Crystal | BS in Optics | Sr. Design Project Team, summer 2016 |
| 66. Jason Owens | BS in Optics | Sr. Design Project Team, summer 2016 |
| 67. Mr. Richard Stadelmann | PhD in MAE, fall 2015 | Advisor: Dr. Nina Orlovskaya |
| 68. Miss Warinya Chemnasiri | PhD in Chemistry, fall 2015 | Advisor: Dr. Florencio Hernandez |
| 69. Mr. Chatdanai Lumdee | PhD in Optics, fall 2015 | Advisor: Dr. Pieter Kik |
| 70. Mr. Carlos Diaz | PhD in Chem., summer 2015 | Advisor: Dr. Florencio Hernandez |
| 71. Miss Sihui He | PhD in Optics, summer 2015 | Advisor: Dr. Shin-Tson Wu |
| 72. Mr. Coleman Caricker | BS in Physics, spring 2015 | Advisor: Dr. Alfons Schulte |
| 73. Mr. Kyle Thurmond | BS in Eng, fall 2014 | Advisor: Dr. Subith S. Vasu |
| 74. Mr. Owen M. Pryor | BS in Eng, fall 2014 | Advisor: Dr. Subith S. Vasu |
| 75. Dr. Seyfollah Toroghi | PhD in Optics, summer 2014 | Advisor: Dr. Pieter Kik |
| 76. Dr. Aniruddha Dutta | PhD, Physics, spring 2014 | Advisor: Dr. Helge Heinrich |
| 77. Dr. Jirair Gevorkyan | PhD in Chem., spring 2013 | Advisor: Dr. Robert Igarashi |
| 78. Dr. David Restrepo | PhD in Chem., spring 2013 | Advisor: Dr. Richard Blair |
| 79. Dr. Binh Tran | PhD in Chem., spring 2013 | Advisor: Dr. Lei Zhai |
| 80. Dr. David Reid | PhD in Eng., fall 2012 | Advisor: Dr. Sudipta Seal |
| 81. Dr. Caitlin Rinke | PhD in Chem., fall 2012 | Advisor: Dr. Michael Sigman |
| 82. Dr. Deborah Maxwell | PhD in Chem., summer 2012 | Advisor: Dr. Robert Igarashi |
| 83. Dr. Sihui He | PhD in Optics, spring 2012 | Advisor: Dr. Shin-Tson Wu |
| 84. Dr. Christina Oropeza | PhD in Chem. | Advisor: Dr. Christopher Clausen |
| 85. Dr. Shruba Gangopadhyay | PhD in Chem., fall 2010 | Advisor: Dr. Artem Masunov |
| 86. Dr. Hubert Seigneur | PhD in Optics, fall 2010 | Advisor: Dr. Winston Schoenfeld |
| 87. Dr. Sanchita Biswas | PhD in Chem., spring 2010 | Advisor: Dr. Kevin Belfield |
| 88. Dr. Luis Ono | PhD in Phys., fall 2009 | Advisor: Dr. Beatriz Roldán-Cuenya |
| 89. Dr. Xiong Liu | PhD in Chem., summer 2009 | Advisor: Dr. Qun Huo |
| 90. Dr. Qui Dai | PhD in Chem., spring 2008 | Advisor: Dr. Qun Huo |
| 91. Ms. Amanda Parish | MS in Optics, 2007 | Advisor: Dr. Shin-Tson Wu |
| 92. Ms. Kathleen Brooks | PhD candidate in Chem. | Advisor: Dr. Cherie Geiger |
| 93. Dr. Raymond C. Rumpf | PhD in Optics, spring 2006 | Advisor: Dr. Eric Johnson |
| 94. Dr. Marisol Garcia | PhD in Chem., spring 2006 | Advisor: Dr. Florencio Hernandez |
| 95. Dr. Chien-Hui Wen | PhD in Optics, spring 2006 | Advisor: Dr. S.-T. Wu |
| 96. 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.***

| | | | |
|---|---|---|---|
| 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

**Faculty Fellow for Student Success in Chemistry**, College of Science, UCF Jan 2023 - present

- Leading Chemistry faculty in effort to improve student-performance and course-completion rates in the sequence Intro-Chem → Chem-1 → Chem-2 → Organic-1 → Organic-2 → Biochemistry.
- Supervising graduate research assistant analyzing student outcomes and risk-factors that affect course-completion rates.
- Coordinating General-Chemistry Committee and gen-chem instructional faculty.
- Chemistry-liaison to College of Undergraduate Studies and other units working to improve undergraduate course-completion rates.
- Reporting biweekly to COS dean on project outcomes.

**Co-Founder and Associate Director,** UCF Center for Ethics (C4E) Aug. 2019 – present

- https://ethicscenter.research.ucf.edu/
- Co-administration of C4E activities and supervision of interns, with Dr. Jonathan Beever.
- Director, *Ethically Speaking* seminar series.
- Co-leading ethics workshops for students, faculty, and administrators across campus.
- Developing C4E proposals and directing externally funded research.
- Drafting peer-reviewed publications, reports, and other C4E works.

**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 designated 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," conference #12497 held as part of SPIE Advanced Lithography + Patterning 2023 (26 Feb. – 2 Mar. 2023, San Jose, CA).

2. Member of Organizing Committee for "Advanced Fabrication Technologies for Micro/Nano Optics and Photonics XVI", conference #12433 held as part of Photonics West 2023 - OPTO (28 Jan. – 2 Feb. 2023, San Francisco, CA); http://spie.org/PW23O/conferencedetails/advanced-fabrication-micro-nano.

3. Member of Organizing Committee for "Novel Patterning Technologies," conference AL102 held as part of SPIE Advanced Lithography (24 - 28 Apr. 2022, San Jose, CA), https://spie.org/conferences-and-exhibitions/advanced-lithography-and-patterning?SSO=1.

4. Member of Organizing Committee for "Advanced Fabrication Technologies for Micro/Nano Optics and Photonics XV", a conference held as part of Photonics West 2022 - OPTO (22 - 27 Jan 2022, San Francisco, CA); http://spie.org/PW22O/conferencedetails/advanced-fabrication-micro-nano.

5. Member of Organizing Committee for "Novel Patterning Technologies," conference AL102 held as part of SPIE Advanced Lithography (22 - 26 Feb. 2021, held remotely).

6. Member of Organizing Committee for "Advanced Fabrication Technologies for Micro/Nano Optics and Photonics XIV", a conference held as part of Photonics West 2021 - OPTO (6 - 11 March 2021, San Francisco, CA); http://spie.org/PW21O/conferencedetails/advanced-fabrication-micro-nano.

7. Member of Organizing Committee for "FiO 1: Optical Design, Fabrication and Instrumentation," a conference held as part of Frontiers in Optics: the 104th OSA Annual Meeting and Exhibit/Laser Science Conference (Optical Society of America, 14 - 17 Sept. 2020, held remotely).

8. 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).

9. 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/PW20O/conferencedetails/advanced-fabrication-micro-nano.

10. 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.).

11. 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/PW19O/conferencedetails/advanced-fabrication-micro-nano.

12. 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).

13. 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).

14. 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).

15. 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).

16. 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.

17. Founder and co-organizer: The "Second Annual Florida Chemistry Conclave: Ethics and Responsible Conduct in Chemistry" (UCF, 28 Feb. 2017).

18. Founder and co-organizer: The "First Annual Florida Chemistry Conclave" (UCF, 2 Apr. 2016).

19. 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).

20. Member of Program Committee for "FiO 1: Optical Design, Fabrication and Instrumentation," Sub-committee of the Frontiers in Optics/Laser Science 2015 Conference (Optical Society of America), https://www.frontiersinoptics.com/library/images/fio/Archives/FiOLS2015.pdf).

21. 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.

22. 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.

23. Member of Organizing Committee for "Advanced Fabrication Technologies for Micro/Nano Optics and Photonics III", conference #MF106 at Photonics West 20010, SPIE (23-28 Jan. 2010, San Jose, CA). W. V. Schoenfeld, J. J. Wang, M. Loncar, T. J. Suleski, Eds.

24. Chair of spring 2009 Materials Research Society Symposium BB: "Material Systems and Processes for Three-Dimensional Micro- and Nano-Scale Fabrication and Lithography".

25. 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.

26. 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.

27. 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.

28. 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).

29. 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.

30. 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. "Writing in my profession." UCF Center for Writing Excellence (20 Oct. 2022).

   Delivered an oral presentation on why writing is important across disciplines, delivered to students, staff, and faculty attending the NCTE National Day on Writing "pop-up" reception organized by Dr. Laurie Pinkert, UCF Center for Writing Excellence (20 Oct. 2022).

2. S. M. Kuebler, "How to Study Chemistry" workshop. UCF Chemistry (multiple dates).

   This workshop teaches undergraduates tried-and-true active-study methods – like notetaking by hand and self-assessment – that push new knowledge into long-term memory, but which intriguingly are unknown to <u>most</u> students. The workshop was first offered three (3) times in spring 2023, from 5:00 pm – 6:00 pm on 17, 18, and 19 January 2023. The sessions were attended by approximately 100 students in Chemistry Fundamentals II (CHM 2046.0001).

3. S. M. Kuebler, "Doing the Right Thing... Frameworks for Ethical and Responsible Conduct of Research." UCF Research Week (29 and 30 Mar. 2023).

   This research-ethics workshop was delivered to two cohorts of 60 students in total as part of *UCF Research Week*. The students draw from the course *Introduction to Research* (IDS 3913) led out of the Office of Undergraduate Research, as well as students in Honors Undergraduate Thesis (HUT) and the LEAD Scholars program.

4. S. M. Kuebler. "Rebooting our Understanding in Chemistry of Falsification, Fabrication, and Plagiarism (FFP)." Chemistry Department, UCF (multiple dates).

   This workshop teaches the principles of FFP, professional behavior, and their ethical underpinnings. The workshop reaches 50+ UCF Chemistry graduate students per run and has been conducted on the following dates: 19 Apr 2019, 7 Apr 2020, and 5 Mar 2021.

***The "Be Better Club": An informal ethics discussion group***

Students, faculty, and staff interested interested in talking with us about contemporary ethical issues are welcome to participate in the bi-weekly “Be Better Club,” an informal but informed bi-weekly discussion group. Topics are chosen by community interest and driven by members' own thinking.

5. J. Beever and S. M. Kuebler. "Be Better Club: Defining Disability." The UCF Center for Ethics hosts a discussion about the boundaries of disability? How do they challenge questions of responsibility and justice? Online discussion, Center for Ethics, University of Central Florida, 1 Apr 2023.

6. J. Beever and S. M. Kuebler. "Be Better Club: Thought Experiments." The UCF Center for Ethics hosts a discussion about thought experiments in ethics. Online discussion, Center for Ethics, University of Central Florida, 1 Apr 2023; https://www.youtube.com/watch?v=p9BxhuKN2Mk.
7. J. Beever and S. M. Kuebler. "Be Better Club: Wealth Inequality." In this session of the Be Better Club, hosted by the UCF Center for Ethics, we discuss Wealth tax, universal basic income, automation and technology. What makes wealth distribution a justice issue? Online discussion, Center for Ethics, University of Central Florida, 28 Feb 2023.
8. J. Beever and S. M. Kuebler. "Be Better Club: Water and Resource Equity." In this session of the Be Better Club, hosted by the UCF Center for Ethics, we discuss water and resource equity and access, through a series of case studies and example. Online discussion, Center for Ethics, University of Central Florida, 31 Jan 2023; https://www.youtube.com/watch?v=wO6Z_ekff6k.
9. J. Beever and S. M. Kuebler. "Be Better Club: Florida HB 7." In this session of the Be Better Club, we have a conversation about Florida HB 7 and Critical Race Theory, with staff, students, and faculty participating. Online discussion, Center for Ethics, University of Central Florida, 29 Nov 2022; https://www.youtube.com/watch?v=_ofn7J1mnXM.
10. J. Beever and S. M. Kuebler. "Be Better Club: Public-Private Partnerships." In this session of the Be Better Club, we have a conversation about Florida HB 7 and Critical Race Theory, with staff, students, and faculty participating. Online discussion, Center for Ethics, University of Central Florida, 25 Oct 2022; https://www.youtube.com/watch?v=XUym03B1PrQ.
11. J. Beever and S. M. Kuebler. "Be Better Club: Extraterrestrial Environmentalism." What do we do about space trash, off-planet pollutants, and interplanetary invasive species? What is an environmental ethics of space? Online discussion, Center for Ethics, University of Central Florida, 27 Sept 2022.
12. J. Beever and S. M. Kuebler. "Be Better Club: Personhood." In this discussion, our community talks about rights and personhood: how does a shift toward pursuing legal personhood for nonhuman entities shift the moral terrain? Online discussion, Center for Ethics, University of Central Florida, 30 Aug 2022; https://www.youtube.com/watch?v=KsXS_95kmjY.
13. J. Beever and S. M. Kuebler. "Be Better Club:" Ethics of Chatbots. UCF's Dr. Stevie Carnell discusses the ethical issues associated with building, implementing, and using chatbots. Online discussion, Center for Ethics, University of Central Florida, 27 Apr 2022; https://www.youtube.com/watch?v=UfTeshLHfQ8.
14. J. Beever and S. M. Kuebler. "Be Better Club:" The Bystander Effect. When someone is injured or there is an emergency, what are the ethics of doing something or doing nothing? Where do social responsibility, concern for self, and duty to others butt heads? Online discussion, Center for Ethics, University of Central Florida, 12 Apr 2022; https://www.youtube.com/watch?v=KMyTQ00k5Mk.
15. J. Beever and S. M. Kuebler. "Be Better Club:" Baby Xenobots and Other Potential Horrors. So xenobots procreated... We'll talk implications, both positive and negative, of the rise of artificial life. Online discussion, Center for Ethics, University of Central Florida, 30 Mar 2022; https://youtu.be/luoCdohmcnY.
16. J. Beever and S. M. Kuebler. "Be Better Club:" AI, and You. Like the old western, there's good, bad, and ugly here. We'll talk them through and see where you stand. Online discussion, Center for

Ethics, University of Central Florida, 16 Mar 2022; https://www.youtube.com/watch?v=P5yIe2BDWak.

17. J. Beever and S. M. Kuebler. "Be Better Club:" Rise of the Robots. As robotics becomes more advanced, robots play a bigger and bigger role in tasks that humans traditionally have done. What are the ethical limits, if any, to their rise? Online discussion, Center for Ethics, University of Central Florida, 28 Feb 2022; https://youtu.be/joGlW5V4DBc.
18. J. Beever and S. M. Kuebler. "Be Better Club:" Morally Neutral or Morally Neutered? The volume is up in the critique against perceived political bias in higher education. What gives? What does the future look like? Online discussion, Center for Ethics, University of Central Florida, 14 Feb 2022; https://youtu.be/g0qEUnOw634.
19. J. Beever and S. M. Kuebler. "Be Better Club:" Data Scraping and the IRB. What are the ethically relevant differences between data scraped from online social media and other human subjects data? Online discussion, Center for Ethics, University of Central Florida, 9 Nov 2021; https://youtu.be/joGlW5V4DBc.
20. J. Beever and S. M. Kuebler. "Be Better Club:" AI and Autonomous Vehicles. Autonomous systems challenge views of responsibility, blame, and agency. What should a future of ethical AI look like? Online discussion, Center for Ethics, University of Central Florida, 26 Oct 2021; https://youtu.be/KeeQTvwwYh0.
21. J. Beever and S. M. Kuebler. "Be Better Club:" Online Learning, Choice, and Equity. Cameras on or off? Attending live or listening later? How do we balance engagement, privacy, and choice for students learning online? Online discussion, Center for Ethics, University of Central Florida, 12 Oct 2021; https://youtu.be/_qTwoEaDnGo.
22. J. Beever and S. M. Kuebler. "Be Better Club:" Intellectual Property, Ownership, and Theft. What are the ethical concerns around intellectual property? What are their implications in new FL legislation like FL HB 7017 and 1523? Online discussion, Center for Ethics, University of Central Florida, 28 Sept. 2021; https://youtu.be/rvLWgwOLSA0.
23. J. Beever and S. M. Kuebler. "Be Better Club:" Intellectual Diversity, Free Speech, and Florida HB 233. What's the relationship between intellectual diversity and free speech in academic contexts? Online discussion, Center for Ethics, University of Central Florida, 14 Sept 2021; https://youtu.be/phmqcB_6wbM.
24. J. Beever and S. M. Kuebler. "Be Better Club:" Vaccines, Variants, and Uncertainty. As we negotiate viral variants, what's the right thing to do? How do we deal with ongoing uncertainty about a changing risk landscape? Online discussion, Center for Ethics, University of Central Florida, 31 Aug 2021; https://youtu.be/ZYAloMFnlgI.
25. J. Beever and S. M. Kuebler. "Be Better Club:" Autonomous Vehicles. Online discussion of ethical issues surrounding AI and self-driving vehicles. Center for Ethics, University of Central Florida, 13 Apr 2021; https://www.youtube.com/watch?v=7rageWoZ0P8.
26. J. Beever and S. M. Kuebler. "Be Better Club": Social Media Ethics. Online discussion of ethical issues surrounding social media. Center for Ethics, University of Central Florida, 30 Mar 2021; https://www.youtube.com/watch?v=75rqjTS9zfc.

27. J. Beever and S. M. Kuebler. "Be Better Club": Dr. Mark Satta. The UCF Center for Ethics' Be Better Club, along with the Department of Philosophy, hosts Dr. Mark Satta (Wayne State) to talk about his work on epistemic trespassing, in the context of ethics, science, and knowledge. Center for Ethics, University of Central Florida, 16 Mar 2021; https://www.youtube.com/watch?v=_RMu5YL8_bE.

28. J. Beever and S. M. Kuebler. "Be Better Club": Vaccine Ethics. The group discusses ethical issues associated with COVID-19 vaccination, including exemptions and changes to policies and practices. Center for Ethics, University of Central Florida, 2 Mar 2021; https://www.youtube.com/watch?v=OS1puRzxdSI.

29. J. Beever and S. M. Kuebler. "Be Better Club": Ethics with Podcasts." Dr. Alison Kerr leads a discussion on ethics, pod casts, and plagiarism. Center for Ethics, University of Central Florida, 16 Feb 2021; https://www.youtube.com/watch?v=9XrfZ7Np-PM.

30. J. Beever and S. M. Kuebler. "Be Better Club": Ethics and Meritocracy. Jose Vazquez discusses ethical issues around meritocracy. Center for Ethics, University of Central Florida, 18 Dec 2020; https://www.youtube.com/watch?v=zUWCFapbu-g.

31. J. Beever and S. M. Kuebler. "Be Better Club": Ethics and Religion. Former UCF student Sterling Courtney leads a discussion on the intersections between ethics and religion. Center for Ethics, University of Central Florida, 11 Nov 2020; https://www.youtube.com/watch?v=mEbtG7VvlMQ.

32. J. Beever and S. M. Kuebler. "Be Better Club": Covid-19 and Social Justice. Dr. Beever leeds a discussion on ethical issues associated with the pandemic. Center for Ethics, University of Central Florida, 27 Oct 2020; https://www.youtube.com/watch?v=ZUtCwOQvH_Q.

33. J. Beever and S. M. Kuebler. "Be Better Club": Tweets and Power. UCF Texts and Technology PhD student Marissa Salas leads a conversation on how tweets affect the balance of power and public opinion. Center for Ethics, University of Central Florida, 29 Sept 2020; https://www.youtube.com/watch?v=awNA3hKAYvg.

34. J. Beever and S. M. Kuebler. "Activities in the UCF Center for Ethics." 'AH-HA!" Moment!' discussion series, UCF College of Arts and Humanities (31 Jul 2020).

    Discussion, hosted by Dr. Nancy Stanlick, of the objectives and activities of the UCF Center for Ethics, https://www.youtube.com/watch?v=nqiiQL6B8V8.

35. S. M. Kuebler and J. Beever. "Ethics in a Pandemic." UCF Center for Ethics (22 Apr 2020).

    Online discussion of ethical issues arising as society and organizations deal with the Covid-19 pandemic. https://youtu.be/eNC_AOTDjKY.

36. S. M. Kuebler, Workshop Invited-Speaker: "What a Journal Editor Looks for in a Publishable Manuscript" UCF Faculty Center for Teaching and Learning (19 Feb 2020).

    Presentation and discussion held as part of a UCF writing workshop for STEM faculty led by Dr. Julie Donnelly (Post-Doctoral Scholar, UCF Faculty Center for Teaching and Learning) based on Wendy Belcher's "Writing Your Journal Article in 12 Weeks" workbook. Kuebler explained and answered questions on how to translate research into the peer-reviewed literature, from his perspective as Associate Editor of *Journal of Micro/Nano-Lithography, MEMS, and MOEMS* (SPIE).

37. S. M. Kuebler and J. Beever. "A BET you didn't know how important ethics is! Your good work has value." UCF College of Engineering (26 Nov 2019).

    This mini-workshop for new faculty in the College of Engineering and Computer Science, UCF focused on how incorporating ethics into undergraduate and graduate student training fosters both student and faculty development across all areas of work.

38. S. M. Kuebler and J. Beever. "COS New-Faculty Workshop on Ethics in STEM" (UCF College of Sciences.

    Workshop with new faculty hired into the UCF College of Sciences discussing the position of ethics in teaching, research, and mentoring as a faculty member. This workshop has been conducted on the following dates: 12 Oct 2017, 29 Mar 2019, 14 Oct 2019 and 3 Feb 2023.

39. S. M. Kuebler, "Life-Long Learning Opens Many Doors." ACS@UCF (23 Jan 2019).

    A presentation on professional development and undergraduate research delivered to the Student Chapter of the American Chemical Society of UCF.

40. J. Beever and S. M. Kuebler. "Cultivating Student Leadership of a Culture of Ethical Literacy and Responsible Conduct." UCF Student Development and Enrollment Services (14 Nov 2018)

    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.

41. S. M. Kuebler, "Make Passion for Learning Your Route to Success." Burnett Honors College (29 Oct 2018)

    A presentation on professional development and undergraduate research delivered to first-year students enrolled in the Honors Symposium course, Burnett Honors College.

42. Panelist: "Near-Miss Candidates." New Advisors Workshop, National Association of Fellowship Advisors (Orlando, FL, 26 Jun 2018).

    A round-table discussion held as part of the New Advisors Workshop, organized by the National Association of Fellowship Advisors, http://www.nafadvisors.org/regional-summer-workshops). Kuebler represented the Marshall Scholarships, with Josh Stanton, Youth Outreach Coordinator for the UK Embassy, Washington, DC.

43. S. M. Kuebler and J. Beever. "Ethics in Research: How to Start on the Right Path." UCF-SURF (25 May 2018).

    A discussion for students enrolled in the UCF Summer Undergraduate Research Fellowship (SURF) program.

44. S. M. Kuebler and J. Beever. "Ethical Literacy in Undergraduate Research." UCF Undergraduate Research Council (17 Apr 2018).

45. S. M. Kuebler and J. Beever. "Building a Culture of Ethical Literacy across the Disciplines." UCF-APEP (20 Feb 2018).

    Presentation and discussion of how to build ethical literacy and ethical cultures, led for members of UCF Faculty Excellence's "Assistant Professor Excellence Program" (APEP, https://facultyexcellence.ucf.edu/assistant-professor-excellence-program/).

46. S. M. Kuebler and J. Beever. "CDEP: Cultivating a Culture of Ethical Leadership." UCF-CDEP (23 Jan 2018 and 23 Mar 2020).

    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).

47. 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://graduate.ucf.edu/pathways-to-success/). 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. Since taking over this course in 2017, Kuebler re-designed and continually updates this core-workshop. ***The workshop has been held 46 times, reaching at least 20 students in each sitting***, on **1)** 29 Aug 2017, **2)** 27 Sept 2017, **3)** 19 Oct 2017, **4)** 30 Jan 2018, **5)** 7 Mar 2018, **6)** 5 Apr 2018, **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, **19)** 6 Aug 2019, **20)** 20 Sept 2019, **21)** 13 Nov 2019, **22)** 6 Dec 2019, **23)** 24 Jan 2020, **24)** 14 Feb 2020, **25)** 20 Mar 2020, **26)** 28 May 2020, **27)** 25 Jun 2020, **28)** 30 Jul 2020, **29)** 10 Sept 2020, **30)** 8 Oct 2020, **31)** 12 Nov 2020, **32)** 18 Jan 2021, **33)** 15 Feb 2021, **34)** 15 Mar 2021, **35)** 19 May 2021, **36)** 16 Jun 2021, **37)** 14 Jul 2021, **38)** 14 Sept 2021, **39)** 14 Oct 2021, **40)** 16 Nov 2021, **41)** 19 Jan 2022, **42)** 22 Feb 2022, **43)** 29 Mar 2022, **44)** 25 May 2022, **45)** 22 Jun 2022, **46)** 26 Jul 2022, **47)** 23 Sept 2022, **48)** 7 Oct 2022, **49)** 4 Nov 2022, **50)** 27 Jan 2023, **51)** 10 Feb 2023, **52)** 24 Mar 2023.

48. S. M. Kuebler. "Preparing for 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.

49. Panelist: "New Graduate Student Orientation and Welcome Workshop" UCF College of Graduate Studies (10 Aug 2022, 9 Aug 2017, 11 Aug 2016, 12 Aug 2015).

    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.

50. S. M. Kuebler. "Career Planning for after Graduate School: Academia, Industry, and More" UCF Summer Research Academy (17 Jun 2017, 11 Jun 2016, 13 Jun 2015, 15 Jun 2013).

    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.

51. Panelist: "It's Never Too Early to Think about Graduate School." UCF Summer Research Academy (17 Jun 2017, 11 Jun 2016, 13 Jun 2015, 14 Jun 2014, 15 Jun 2013).

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.

52. 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.

53. Co-organizer: "Women in Research: Paths to Successful Careers." Summer Research Academy, UCF (13 Jun 2015, 14 Jun 2014), 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.

54. Panelist: "NSF CAREER Advising Workshop." UCF College of Engineering and College of Sciences (2011 - 2014).

55. Co-leader and Participant: "Issues in Academic Leadership." UCF-FCTL (22 Mar 2013).

    Workshop on academic leadership organized for the UCF Faculty Center for Teaching and Learning.

56. 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 Mar 2013) to introduce attendees to the growing field of organic and polymeric optical materials.

57. Invited Participant, "NSF Germany-USA Workshop on Nanomaterials Research." NSF and BMBF (summer 2005)

    Invited participant in an 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 Optical Microsystems* (2020 - present, published by SPIE, https://www.spiedigitallibrary.org/jom-announcement?SSO=1).
- Associate Editor, *Journal of Micro/Nanolithography, MEMS, and MOEMS* (2008 - 2020, published by SPIE, 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. National Science Centre Poland (2020/2021)
3. NanoSci-ERA, European Research Area Nanoscience Consortium
4. American Chemical Society Petroleum Research Fund
5. Austrian Science Fund (2014)
6. 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 Senate (College of Sciences seat) 2022 - present
  + Research Council 2023 - present
  + Undergraduate Policy and Curriculum Committee 2022 - 2023
- Undergraduate Research Council (representing Optics and Center for Ethics) 2011 - present
  + Judge, Showcase for Undergraduate Research 2011 - present
  + Undergraduate Research Grant reviewer 2013 - present
- Laser Safety Committee, Environmental Health and Safety, UCF 2021 - present
- Faculty Mentor, Society of Optics Students, CREOL, UCF 2015 - present
- Faculty Mentor, ACS Student Chapter, UCF 2007 - present

***ACS@UCF was designated "Outstanding Chapter" (top 10%) by national ACS <u>multiple</u> years in a row (2013/14, 14/15, 15/16, 16/17, 17/18, 18/19, and 21/22 and won the Green Chemistry Award in 2014 and 2018.***


- Faculty Senate (Chemistry seat) 2015 - 2017
  + Budget and Administration Committee 2015 - 2017
  + Undergraduate Policy and Curriculum Committee 2015 - 2018
- University COACHE Priority Setting Committee 2021 - 2022
- Conflict of Interest, Huron-Research-Suite Onboarding Team 2021 - 2022
- Coach, UCF Team competing in the 2021 Lockheed Martin Ethics in Engineering Competition 2020
- Faculty Excellence Advisory Committee, Mid-Career Subcommittee 2017 - 2020
  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 - 2021
- Internal proposal review, UCF Office of Research
- "Wahoo" services re-organization advisory committee, Office of Research and Commercialization, UCF 2016 - 2018

- Goldwater Scholar University Selection Committee 2017/2018
- 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
- Co-chair, Strategic Planning Committee, College of Sciences, UCF Oct. 2022 - present
- COS Leadership Council Jan 2022 - present
- COS IT Advisory Committee May 2023 - present
- NSF CAREER Aspirant Mentoring Committee in CREOL 2019 - present
- Undergraduate Curriculum Committee, CREOL 2014 - present
- COS Facilities Working Group 2021 - present
- Marketing Committee for CREOL 2018 - 2020
- Dean's Advisory Council, College of Sciences 2018 - 2019
- 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 - 2019
- 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
- Chair, General-Chemisty Committee 2023 - present
- Chair, Chemistry Graduate Affairs Committee 2018 - present
- Graduate Committee, Chem. Dept. 2015 - 2016, 2021 - present
- Electronic-materials faculty-search committee 2023 - present
- Communications and Marketing Committee 2021 - present
- NSF CAREER Aspirant Mentoring Committee in Chemistry 2019 - present
- Promotion and Tenure Committee, Chemistry Dept. 2008 - present
- Safety Team, Physical Sciences Building, UCF 2015 - present
- Amplified femtosecond laser, administration/maintenance (department facility) 2015 - present
- Inorganic chemistry proficiency exam administration 2010 - present
- Annual Evaluation Standards and Procedures (AESP) Committee, Chem. Dept. 2022 - present
2016 - 2017
- Chair, Instructor and Lecturer Promotion Committee 2021
- Diversity and Inclusion Committee 2020 - 2021
- Chair's Advisory Committee 2020 - 2021

- Chair, Search Committee for Chemical Education Research 2018/2019
- 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
- Chair, Organic Chemistry Faculty Search Committee, Chem. Dept. 2016 - 2017
- 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**

- Boy Scout Troop 58, Central Florida Council, Scouts BSA
  - Assistant Scout Master Aug 2022 - present
- Cub Scout Pack 3058, Central Florida Council, Scouts BSA
  - Assistant Cub Master Aug 2021 - Aug 2022
  - Cub Master May 2019 - Aug 2021
  - Webelos-Den Leader, Pack 3058, Scouts BSA 2019 - 2021
  - Fundraising Chair, Pack 3058, Scouts BSA (Raised over $5,000) 2018 - present
  - Bear-Den Leader, Pack 3058, Scouts BSA 2018 - 2019
  - 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 $I^3$ program led by UCF Provost Tony Waldrop and Dr. Michael Georgiopoulos (NSF-0963146).
- Immediate Past-Chair, Orlando Section, 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." — 2018, 2021
  - "Responsible Conduct of Research for Engineers." — 2019, 2021
  - "Physical Science Responsible Conduct of Research" — 2019, 2021
  - "Conflict of Interest Mini-Course." — 2013, 2022
- 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