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Education/Experience

- 2025 - present Florida State University (FSU), Tallahassee, FL
Professor
Department of Chemistry and Biochemistry
- 2019 - 2025 Florida State University (FSU), Tallahassee, FL
Associate Professor
Department of Chemistry and Biochemistry
- 2013 - 2019 Florida State University (FSU), Tallahassee, FL
Assistant Professor
Department of Chemistry and Biochemistry
- 2010 – 2013 The University of North Carolina at Chapel Hill (UNC), Chapel Hill, NC
Postdoctoral Associate, Department of Chemistry
Research Advisor: Prof. Thomas J. Meyer
- 2005 – 2010 University of Southern California (USC), Los Angeles, CA
Graduate Student, Department of Chemistry
Research Advisor: Prof. Mark E. Thompson
GPA: 3.81/4.0
- 2000 – 2005 St. Cloud State University (SCSU), St. Cloud, MN
Degree: B.S. Chemistry
GPA: 3.32/4.0, Cum Laude

Publications (h-index=55, i10=98, Citations=9085)

Submitted

- 132.Arcidiacono, A.; Ruchlin, C.; Lindbom, S.; Saavedra, S.S.; Hanson, K. Impact of Metal Linking Ions on the Structure and Energy Transfer Dynamics in Molecular Bilayers on Metal Oxide Films. *JPhys Mater.* **2025**, (submitted).
- 131.Dvorak, S.; Monroe, J.D.; Hanson, K.; Sturms, R. Oxygen Binding Kinetics and Coordination States of Hemoglobins from Early Land Plants. *ACS Omega* **2025**, (submitted).
- 130.McLeod, G.M.; Hanks, B.; Ashby, H.; Nolder, J.; Sorenson, B.; Hanson, K. Generative AI vs. Student Performance on Multiple-Choice, General Chemistry Exams: Insights into Question Design from Regression Analysis. *J. Chem. Edu.* **2025**, (submitted).

Published

- 129.Sledesky, J.M.; Zimmerman, J.H.; London, H.C.; Lambert, E.C.; McMillen, C.D.; Barker, M.; Hanson, K.; Wagenknecht, P.S. Xylylethynyl Titanocene With a Microsecond Emission Lifetime Photosensitizes Singlet-Oxygen Formation And Photon Upconversion. *Inorg. Chem.* **2025**, 64, 14977-14988.
- 128.London, H.C.; Chen, J.; Adu Fosu, E.; Firestone, Z.; Lambert, E.C.; Smith, J.M.; Jakubikova, E.; Hanson, K. Modulating Excited State Lifetimes in Cu(I) Complexes: The Role of Surface Binding Motifs. *ACS Appl. Energy Mater.* **2025**, 8, 9530-9537.
- 127.Dos Santos, N.R.; Schober, J.V.; Laconsay, C.J.; Palazzo, A.M.; Kuhn, L.; Chu, A.; Hanks, B.; Hanson, K.; Wu, J.; Alabugin, I.V. Assembly of Pyrenes through a Quadruple Photochemical Cascade: Blocking Groups Allow Diversion from the Double Mallory Path to Photocyclization at the Bay Region. *J. Am. Chem. Soc.* **2025**, 147, 1074-1091.
- 126.Chen, J.; Pattadar, D.; Worster, C.; London, H.C.; Salpage, S.R.; Jakubikova, E.; Saavedra, S.S.; Hanson, K. Increasing Excited State Lifetimes of Cu(I) Coordination Complexes via Strategic Surface Binding. *Inorg. Chem. Frontiers.* **2025**, 12, 1295-1302.

125. Arcidiacono, A.; Ruchlin, C.; McLeod, G.M.; Pattadar, D.; Lindbom, S.; Robb, A.J.; Ayad, S.; Dos Santos, N.R.; Alabugin, I.V.; Saavedra, S.S.; Hanson, K. Structural insights to metal ion linked multilayers on metal oxide surfaces via energy transfer and polarized ATR measurements. *J. Mater. Chem. A*, **2024**, 12, 28882-28891.
124. McLeod, G.M.; Nolder, J.; Arcidiacono, A.; Lindbom, S.; Dos Santos, N.R.; Lambert, E.C.; Ayad, S.; Beery, D.; Alabugin, I.V.; Hanson, K. Differentiating Intra-Assembly and Inter-Layer Energy Transfer in Metal Ion Linked Molecular Multilayers. *J. Phys. Chem. C* **2024**, 128, 16861-16868.
123. Sorenson, B.; Hanson, K. Identifying Generative Artificial Intelligence Chatbot Use on Multiple-Choice, General Chemistry Exams Using Rasch Analysis. *J. Chem. Edu.* **2024**, 101, 3216-3223.
122. Hu, C.; Kuhn, L.; Makurvet, F.D.; Knorr, E.S.; Lin, X.; Kawade, R.K.; Mentink-Vigier, F.; Hanson, K.; Alabugin, I.V. Tethering Three Radical Cascades for Controlled Termination of Radical Alkyne peri-Annulations: Making Phenalenyl Ketones without Oxidants. *J. Am. Chem. Soc.* **2024**, 146, 4187-4211.
121. Liu, H.; Shonde, T.B.; Olasupo, O.J.; Islam, M.S.; Manny, T.F.; Woodhouse, M.; Lin, X.; Winfred, J.S.R.V.; Mao, K.; Lochner, E.; Fatima, I.; Hanson, K.; Ma, B. Organic Semiconducting Ligands Passivated CsPbBr₃ Nanoplatelets for Efficient and Stable Blue Light Emitting Diodes. *ACS Energy Lett.* **2023**, 8, 4259-4266.
120. Sorenson, B.; Hanson, K. Statistical Comparison Between In-Person and Online General Chemistry Exam Outcomes: A COVID Induced Case Study. *J. Chem. Edu.* **2023**, 100, 3454-3461.
119. Dhruva, P.; Arcidiacono, A.; Beery, D.; Hanson, K.; Saavedra, S.S. Molecular Orientation and Energy Transfer Dynamics of a Metal Oxide Bound Self-Assembled Trilayer. *Langmuir*, **2023**, 39, 10670-10679.
118. Livshits, M.Y.; Wolford, N.J.; Bahn, J.K.; MacInnes, M.M.; Greer, S.M.; Winfred, J.S.R.V.; Hanson, K.; Gompa, T.P.; Stein, B.W. Exploring Differences in Lanthanides Excited State Reactivity Using a Simple Example: The Photophysics of La and Ce Thenoyltrifluoroacetone (TTA) Complexes. *Inorg. Chem.* **2023**, 62, 13712-13721.
117. Knorr, E.S.; Basquill, C.T.; Bertini, I.A.; Arcidiacono, A.; Beery, D.; Wheeler, J.P.; Winfred, J.S.R.V.; Strouse, G.F.; Hanson, K. Influence of Al₂O₃ Overlayers on Intermolecular Interactions between Metal Oxide Bound Molecules. *Molecules*. **2023**, 28, 4835.
116. Arcidiacono, A.; Hanks, B.; Hanson, K. Metal Ion-Linked Molecular Multilayers on Inorganic Substrates: Structure and Applications. *ACS Appl. Opt. Mater.* **2023**, 1, 1156-1168.
115. Pattadar, D.; Zheng, L.; Robb, A.J.; Beery, D.; Yang, W.; Hanson, K.; Saavedra, S.S. Molecular Orientation of -PO₃H₂ and -COOH Functionalized Dyes on TiO₂, Al₂O₃, ZrO₂, and ITO: A Comparative Study. *J. Phys. Chem. C* **2023**, 127, 2705-2715.
114. Liu, H.; Shonde, T.B.; Gonzalez, F.; Olasupo, O.J.; Lee, S.; Luong, D.; Lin, X.; Winfred, J.S.R.V.; Lochner, E.; Fatima, I.; Hanson, K.; Ma, B. Efficient Red Light Emitting Diodes Based on a Zero-dimensional Organic Antimony Halide Hybrid. *Adv. Mater.* **2023**, 2209417.
113. Vu, N.; McLeod, G.M.; Hanson, K.; DePrince, A. Enhanced diastereocontrol via strong light-matter interactions in an optical cavity. *J. Phys. Chem. A* **2022**, 126, 9303-9312.
112. Weinhold, T.D.; Reece, N.A.; Ribeiro, K.; Ocasio, M.L.; Watson, N.; Hanson, K.; Longstreet, A.R. Assessing Carbazole Derivatives as Single-Electron Photoreductants. *J. Org. Chem.* **2022**, 87, 16928-16936.
111. Kalpattu, A.; Dilbeck, T.; Hanson, K.; Fourkas, J.T. Extracting accurate information from triplet-triplet annihilation up-conversion data with a mass-conserving kinetic model. *Phys. Chem. Chem. Phys.* **2022**, 24, 28174-28190.
110. Ayare, P.J.; Watson, N.; Helton, M.R.; Warner, M.J.; Dilbeck, T.; Hanson, K.; Vannucci, A.K. Molecular Z-Scheme for Solar Fuel Production via Dual Photocatalytic Cycles. *J. Am. Chem. Soc.* **2022**, 144, 21568-21575.
109. Stanisauskis, E.; Beery, D.; McLeod, G.; Das, A.; Hanson, K.; Oates, W. Characterization of fractional viscoelastic relaxation behavior of a photopolymer film. *Proc. SPIE* **2022**, 12044, 12044A.
108. McCullough, A.M.; Chen, J.; Valentine, N.V.; Franklin, T.M.; Cantrell, A.C.; Darnell, V.D.; Hanson, K.; Shell, S.M.; Ashford, D.L. Balancing the Interplay Between Ligand Ejection and Therapeutic Window Light Absorption in Ruthenium Polypyridyl Complexes. *Dalton Trans.*, **2022**, 51, 10186-10197.
107. Beery, D.; Stanisauskis, E.; McLeod, G.M.; Das, A.; Guillory, G.A.; Kennemur, J.G.; Oates, W.S.; Hanson, K. Enabling Lower Energy Light Harvesting in Stilbene-Based Photomechanical Polymers via Triplet Sensitization. *ACS Appl. Polym. Mater.*, **2022**, 4, 4081-4086.

106. Beery, D.; Arcidiacono, A.; Wheeler, J.; Chen, J.; Hanson, K. Harnessing Near-Infrared Light via S_0 to T_1 Sensitizer Excitation in a Molecular Photon Upconversion Solar Cell. *J. Mater. Chem. C*, **2022**, 10, 4947-4954.
105. Arcidiacono, A.; Robb, A.J.; Masitas, R.A.; Salpage, S.R.; McLeodd, G.M.; Chen, J.; Ogunsolu, O.O. Roper, M.G.; Hanson, K. Inhibited Interlayer Electron Transfer in Metal Ion Linked Multilayers on Mesoporous Metal Oxide Films. *J. Photochem. Photobio.* **2022**, 9, 100088.
104. Beery, D.; Schmidt, T.W.; Hanson, K. Harnessing Sunlight via Molecular Photon Upconversion. *ACS Appl. Mater. Interfaces* **2021**, 13, 32601–32605.
103. Sorenson, B.; Hanson, K. Using Classical Test Theory and Rasch Modeling to Improve General Chemistry Exams on a per Instructor Basis. *J. Chem. Edu.* **2021**, 98, 1529-1538.
102. de Souza, J.M.; Abdiaj, I.; Chen, J.; Hanson, K.; de Oliveira, K.T.; McQuade, D.T. Synthesis of Multi-Substituted Pyridines From Ylidenemalononitriles and Their Aggregation-Induced Emission Properties. *Org. Biomol. Chem* **2021**, 19, 1991-1999.
101. He, Q.; Worku, M.; Liu, H.; Lochner, E.; Robb, A.J.; Lteif, S.; Winfred, J.S.R.V.; Hanson, K.; Schlenoff, J.B.; Kim, B.; Ma, B.; Highly Efficient and Stable Perovskite Solar Cells Enabled by Industrial Organic Pigment Coating. *Angew. Chemie. Int. Ed.* **2021**, 133, 2515-2522.
100. Ayad, S.; Banerjee, T.; Casale, B.; Hanson, K. Excited State Proton Transfer Dye with Emission Quantum Yields up to 58% Upon Zn^{II} Coordination. *J. Photochem. Photobio.* **2021**, 6, 100029.
99. Arcidiacono, A.; Zhou, Y.; Zhang, W.; Ellison, J.O.; Ayad, S.; Knorr, E.S.; Peters, A.N.; Zheng, L.; Yang, W.; Saavedra, S.S.; Hanson, K. Examining the influence of bilayer structure on energy transfer and molecular photon upconversion in metal ion linked multilayers. *J. Phys. Chem. C* **2020**, 43, 23597-23610.
98. Bobo, M.V.; Arcidiacono, A.M.; Reed, J.C.; Helton, M.R.; Ngo, T.; Hanson, K.; Vannucci, A.K. A Series of Green Light Absorbing Organic Photosensitizers Capable of Oxidative Quenching Photocatalysis. *ChemPhotoChem*, **2020**, 5, 51-57.
97. Fultz, B.A.; Beery, D.; Coia, B.M.; Hanson, K.; Kennemur, J.G. Catalyst Free Removal of Trithiocarbonate RAFT CTAs from Poly(vinylpyridine)s Using Tris(trimethylsilyl)silane and Light. *Polym. Chem.* **2020**, 11, 5962-5968.
96. de Souza, J.M.; Abdiaj, I.; Chen, J.; Hanson, K.; de Oliveira, K.T.; McQuade, D.T. Increasing Scope of Clickable Fluorophores: Electrophilic Substitution of Ylidenemalononitriles. *J. Org. Chem.* **2020**, 85, 11822–11834.
95. Perales, D.; Ford, S.A.; Salpage, S.R.; Collins, T.S.; Zeller, M.; Hanson, K.; Bart, S.C. Conversion of Trivalent Uranium Anilido to Tetravalent Uranium Imido Species via Deprotonation. *Inorg. Chem.* **2020**, 59, 11910–11914.
94. Robb, A.J.; Miles, D.; Salpage, S.R.; Wu, Q.; Hanson, K. Role of Metal Ion Linked Multilayer Thickness and Substrate Porosity on Surface Loading, Diffusion, and Solar Energy Conversion. *ACS App. Mater. Interfaces*, **2020**, 12, 38003–38011.
93. Zhou, Y.; Castellano, F.N.; Schmidt, T.W.; Hanson, K. On the Quantum Yield of Photon Upconversion via Triplet-Triplet Annihilation. *ACS Energy Lett.* **2020**, 5, 2322-2326.
92. Kawade, R.K.; Hu, C.; Dos Santos, N.R.; Watson, N.; Lin, X.; Hanson, K.; Alabugin, I. Phenalenannulations: Three-point double annulation reactions that convert benzenes into pyrenes. *Angew. Chemie. Int. Ed.* **2020**, 132, 14352-14357.
91. Sperling, J.M.; Warzecha, E.J.; Celis-Barros, C.; Sergentu, D.; Wang, X.; Klammer, B.E.; Windorff, C.J.; Gaiser, A.N.; White, F.D.; Beery, D.A.; Chemey, A.T.; Whitefoot, M.A.; Long, B.N.; Hanson, K.; Zurek, E.; Autschbach, J.; Speldrich, M.; Kogerler, P.; Albrecht-Schmitt, T.E. Compression of curium pyrrolidine-dithiocarbamate enhances covalency. *Nature* **2020**, 583, 396–399.
90. Beery, D.; Wheeler, J.P.; Arcidiacono, A.; Hanson, K. CdSe Quantum Dot Sensitized Molecular Photon Upconversion Solar Cells. *ACS Appl. Energy Mater.*, **2020**, 3, 29-37.
89. Gonzalez-Rodriguez, E.; Abdo M.; dos Passos Gomes, G.; A.; Ayad, A.; White, F. D.; Tsvetkov, N. P.; Hanson, K.; Alabugin, I.V. Twofold π -Extension of Polyarenes via Double and Triple Radical Alkyne peri-Annulations: Radical Cascades Converging on the Same Aromatic Core. *J. Am. Chem. Soc.* **2020**, 142, 8352–8366.
88. Bobo, M.V.; Paul, A.; Bobo, M.V.; Robb, A.J.; Arcidiacono, A.M.; Smith, M.D.; Hanson, K.; Vannucci, A.K. bis-Cyclometalated Iridium Complexes Containing (4,4'-bis(phosphonomethyl)-2,2'-bipyridine Ligands: Photophysics, Electrochemistry, and High Voltage Dye-Sensitized Solar Cells. *Inorg. Chem.* **2020**, 59, 6351–6358.
87. He, Q.; Worku, M.; Xu, L.; Zhou, C.; Lin, H.; Robb, A.J.; Hanson, K.; Xin, Y.; Ma, B. Facile Formation of 2D-3D Heterojunctions on Perovskite Thin Film Surfaces for Efficient Solar Cells. *ACS Appl. Mater. Interfaces* **2020**, 12, 1159-1168.

86. Robb, A.J.; Knorr, E.S.; Watson, N.; Hanson, K. Metal Ion Linked Multilayers on Mesoporous Substrates: Energy/Electron Transfer, Photon Upconversion, and More. *J. Photochem. Photobiol. A*, **2019**, 390, 112291.
85. Lengyel, J.; Wang, X.; Choi, E.S.; Besara, T.; Schönmeyer, R.U.; Ramakrishna, S.K.; Holleman, J.; Blockmon, A.L.; Hughey, K.D.; Beery, D.; Balicas, L.; McGill, S.; Hanson, K.; Musfeldt, J.L.; Siegrist, T.; Dalal, N.; Shatruk, M. Antiferroelectric Phase Transition in a Proton-Transfer Salt of Squaric Acid and 2,3-Dimethylpyrazine. *J. Am. Chem. Soc.* **2019**, 141, 16279-16287.
84. Posey, V.; Hanson, K. Chirality and Excited State Proton Transfer: From Sensing to Asymmetric Synthesis. *ChemPhotoChem* **2019**, 3, 580-604.
83. Newsome, W.J.; Ayad, S.; Cordova, J.; Reinheimer, E.; Campiglia, A.D.; Harper, J.K.; Hanson, K.; Uribe-Romo, F.J. Solid State Multicolor Emission in Substitutional Solid Solutions of Metal–Organic Frameworks. *J. Am. Chem. Soc.* **2019**, 141, 11298-11303.
82. Zhou, Y.; Ruchlin, C.; Robb, A.J.; Hanson, K. Singlet Sensitization-Enhanced Upconversion Solar Cells via Self-Assembled Trilayers. *ACS Energy Lett.* **2019**, 4, 61458-61463.
81. Wang, X.; Ling, Y.; Lian, X.; Xin, Y.; Dhungana, K.; Perez-Orive, F.; Knox, J.; Chen, Z.; Zhou, Y.; Beery, D.; Hanson, K.; Shi, J.; Lin, S.; Gao, H. Suppressed Phase Separation of Mixed-Halide Perovskites Confined in Endotaxial Matrices. *Nat. Comm.* **2019**, 10, 695.
80. Ayad, S.; Posey, V.; Das, A.; Montgomery, J.M.; Hanson, K. Enantioenrichment of racemic BINOL by way of excited state proton transfer. *Chem. Commun.* **2019**, 55, 1263-1266.
79. Warzecha, E.; Celis-Barros, C.; Dilbeck, T.; Hanson, K.; Albrecht-Schmitt, T. E. High-Pressure Studies of Cesium Uranyl Chloride. *Inorg. Chem.* **2019**, 58, 228-233.
78. Lian, X.; Wang, X.; Ling, Y.; Lochner, E.; Tan, L.; Zhou, Y.; Ma, B.; Hanson, K. Gao, H. Light Emitting Diodes Based on Composite Halide Perovskites. *Advanced Functional Materials* **2019**, 29, 1807345.
77. Ogunsolu, O.O.; Braun, A.J.; Robb, A.J.; Salpage, S.R.; Zhou, Y.; Hanson, K. Influence of Dye-Coordinated Metal Ions on Electron Transfer Dynamics at Dye-Semiconductor Interfaces. *ACS Appl. Energy Mater.* **2019**, 2, 29-36.
76. Banerjee, T.; Hill, S.P.; Hermosilla-Palacios, M.; Piercy, B.D.; Haney, J.; Casale, B.; DePrince, A.E.; Losego, M.D.; Kleiman, V.D.; Hanson, K. Diphenylisobenzofuran Bound to Nanocrystalline Metal Oxides: Excimer Formation, Singlet Fission, Electron Injection, and Low Energy Sensitization. *J. Phys. Chem. C* **2018**, 122, 2847-28490.
75. White, F.D.; Gaiser, A.N.; Warzecha, E.; Sperling, J.; Celis-Barros, C.; Salpage, S.R.; Zhou, Y.; Dilbeck, T.; Bretton, A.; Meeker, D.; Hanson, K.; Albrecht-Schmitt, T.A. Examination of Structure and Bonding in 10-Coordinate Europium and Americium Terpyridyl Complexes. *Inorg. Chem.* **2018**, 57, 12969-12975.
74. Dilbeck, T.; Hanson, K. Molecular Photon Upconversion Solar Cells Using Multilayer Assemblies: Progress and Prospects. *J. Phys. Chem. Lett.* **2018**, 9, 5810–5821.
73. Zhou, Y.; Ayad, S.; Ruchlin, C.; Posey, V.; Hill, S.P.; Wu, Q.; Hanson, K. Examining the Role of Acceptor Molecule Structure in Self-Assembled Bilayers: Surface Loading, Stability, Energy Transfer, and Upconverted Emission. *Phys. Chem. Chem. Phys.* **2018**, 20, 20513-20524.
72. Salpage, S.R.; Lanzetta, R.C.; Zhou, Y.; Wang, J.C.; Hanson, K. Wavelength Selective Separation of Metal Ions Using Electroactive Ligands. *Chem. Commun.* **2018**, 54, 7507-7510.
71. Wang, J.C.; Ogunsolu, O.O.; Sykora, M.; Hanson, K. Elucidating the role of the Metal Linking Ion on the Excited State Dynamics of Self-Assembled Bilayers. *J. Phys. Chem. C* **2018**, 122, 9835-9842.
70. Ogunsolu, O.O.; Wang, J.C.; Hanson, K. Writing a Review Article: A Graduate Level Writing Class. *J. Chem. Educ.* **2018**, 5, 810-816.
69. Zhou, C.; Haoran, L.; Yu, T.; Yuan, Z.; Clark, R.; Chen, B.; van de Burgt, L. J.; Wang, J.; Zhou, Y. Hanson, K.; Meisner, Q.; Neu, J.; Besara, T.; Siegrist, T.; Lambers, E.; Djurovich, P.; Ma, B. Luminescent zero-dimensional organic metal halide hybrids with near-unity quantum efficiency. *Chem. Sci.* **2018**, 9, 586-593.
68. Wang, J.C.; Hill, S.P.; Dilbeck, T.; Ogunsolu, O.O.; Banerjee, T.; Hanson, K. Multimolecular Assemblies on High Surface Area Metal Oxides and Their Role in Interfacial Energy and Electron Transfer. *Chem. Soc. Rev.* **2018**, 47, 104-148.

67. Zhou, Y.; Hill, S.P.; Hanson, K. Influence of Meta- and Para-phosphonated Diphenylanthracene on Photon Upconversion in Self-Assembled Bilayers. *J. Photonics Energy* **2017**, 8, 022004.
66. Evoniuk, C.J.; Gomes, G.; Hill, S.P.; Satoshi, F.; Hanson, K.; Alabugin, I. V. Coupling N-H deprotonation, C-H activation and oxidation: metal-free C(sp³)-H aminations with unprotected anilines. *J. Am. Chem. Soc.* **2017**, 139, 16210-16221.
65. Dilbeck, T.; Wang, J.C.; Zhou, Y.; Olsson, A.; Sykora, M.; Hanson, K. Elucidating the Energy and Electron Transfer Dynamics of Photon Upconversion in Self-Assembled Bilayers. *J. Phys. Chem. C* **2017**, 121, 19690-19698.
64. Ogunsolu, O.O.; Wang, J.C.; Hanson, K. Increasing Open Circuit Voltage of Dye-sensitized Solar Cells Using Metal Ion Coordination. *Inorganic Chemistry* **2017**, 56, 11168-11175.
63. Wang, J.C.; Violette, K.; Ogunsolu, O.O.; Cekli, S.; Lambers, E.; Hanson, K. Self-Assembled Bilayers on Nanocrystalline Metal Oxides: Exploring the Non-Innocent Nature of the Linking Ions. *Langmuir* **2017**, 33, 9609-9619.
62. Hill, S.P.; Hanson, K. Harnessing Molecular Photon Upconversion in a Solar Cell at Sub-Solar Irradiance: Role of the Redox Mediator. *J. Am. Chem. Soc.* **2017**, 139, 10988-10991.
61. Silver, M. A.; Cary, S. K.; Garza, A. J.; Baumbach, R. E.; Arico, A. A.; Galmin, G. A.; Chen, Kuan-Wen; Johnson, J. A.; Wang, J.C.; Clark, R. J.; Chemey, A.; Eaton, T. M.; Marsh, M. L.; Parker, T. G.; Seidler, K.; Galley, S. S.; van de Burgt, L.; Gray, A. L.; Hobart, D. E.; Hanson, K.; Van Cleve, S. M.; Gendron, F.; Autschbach, J.; Scuseria, G. E.; Maron, L.; Speldrich, M.; Kogerler, P.; Celis-Barros, C.; Paez-Hernandez, D.; Arratia-Perez, R.; Albrecht-Schmitt, T. E. Electronic Structure and Properties of Berkelium Iodates. *J. Am. Chem. Soc.* **2017**, 139, 13361-13375.
60. Ling, Y.; Tan, L.; Wang, X.; Zhou, Y.; Xin, Y.; Ma, B.; Hanson, K.; Gao, H. Composite Perovskites of Cesium Lead Bromide for Optimized Photoluminescence. *J. Phys. Chem. Lett.* **2017**, 8, 3266-3271.
59. Harris, T.; Gomes, G. P.; Ayad, S.; Clark, R. J.; Lobodin, V. V.; Tuscan, M. A.; Hanson, K.; Alabugin, I. V. Twisted chiral cyclodecyne and control of click reactivity with remote stereoelectronic interactions. *Chem* **2017**, 3, 629-640.
58. Logan, M. W.; Ayad, S.; Adamson, J. D.; Dilbeck, T.; Hanson, K.; Uribe-Romo, F. J. Systematic Variation of the Optical Bandgap in Titanium Based Isorecticular Metal-Organic Frameworks for Photocatalytic Reduction of CO₂ under Blue Light. *J. Mater. Chem. A* **2017**, 5, 11854-11863.
57. Dilbeck, T.; Hill, S.P.; Hanson, K. Harnessing Molecular Photon Upconversion at Sub-Solar Irradiance Using Dual Sensitized Self-Assembled Trilayers. *J. Mater. Chem. A* **2017**, 5, 11652-11660.
56. Wang, J.C.; Violette, K.; Ogunsolu, O.O.; Hanson, K. Metal Ion Mediated Electron Transfer at Dye-Semiconductor Interfaces. *Phys. Chem. Chem. Phys.* **2016**, 19, 2679-2682.
55. Longstreet, A.R.; Chandler, R.R.; Banerjee, T.; Miller, L.Z.; Hanson, K.; McQuade, D.T. Ylidenemalononitrile enamine-coated media as fluorescent "turn-on" probes for volatile primary amines. *Photochem. Photobiol. Sci.* **2017**, 16, 455-458.
54. Das, A.; Ayad, S.; Hanson, K. Enantioselective protonation of silyl enol ether using excited state proton transfer dyes. *Org. Lett.* **2016**, 18, 5416-5419.
53. Ogunsolu, O.O.; Murphy, I.A.; Wang, J.C.; Das, A.; Hanson, K. Energy and Electron Transfer Cascade Self-Assembled Bilayers for Application in Dye-Sensitized Solar Cells. *ACS Appl. Mater. Interfaces* **2016**, 8, 28633-28640.
52. Ling, Y.; Tian, Y.; Wang, X.; Wang, J. C.; Knox, J.; Perez-Orive, F.; Du, Y.; Tan, L.; Hanson, K.; Ma, B.; Gao, H. Enhanced Optical and Electrical Properties of Polymer-Assisted All-Inorganic Perovskites for Light Emitting Diodes. *Adv. Mater* **2016**, 28, 8983-8989.
51. Silver, M.A.; Cary, S.K.; Arico, A.A.; Baumbach, R.E.; Wang, J.C.; Johnson, J.A.; Polinski, M.J.; Chemey, A.; Liu, G.; Chen, K.; VanCleve, S.M.; Marsh, M.L.; Eaton, T.M.; Luckey, M.; Urban, M.; van de Burgt, B.; Gray, A.L.; Hobart, D.E.; Hanson, K.; Maron, L.; Braley, J.; Albrecht-Schmitt, T.E. Characterization of Berkelium(III) Dipicolinate and Borate Compounds in Solution and the Solid State. *Science* **2016**, 353, aaf3762.
50. Salpage, S.R.; Paul, A.; Som, B.; Banerjee, T.; Hanson, K.; Smith, M.D.; Vannucci, A.K.; Shimizu, L.S. Structural, electrochemical and photophysical properties of an exocyclic di-ruthenium complex and its application as a photosensitizer. *Dalton Trans.* **2016**, 45, 9601-9607.
49. Evoniuk, C.; Hill, S.P.; Hanson, K.; Alabugin, I.V. Double C-H Amination by Consecutive SET Oxidations. *Chem. Commun.* **2016**, 52, 7138-7141.

48. Hill, S.P.; Dilbeck, T.; Baduelli, E.; Hanson, K. Integrated Photon Upconversion Solar Cell via Molecular Self-Assembly at Hybrid Interfaces. *ACS Energy Lett.* **2016**, 1, 3-8.
47. Das, A.; Banerjee, T.; Hanson, K. Protonation of Silylenol Ether via Excited State Proton Transfer Catalysis. *Chem. Commun.* **2016**, 52, 1350-1353.(back cover art)
46. Bade, S.G.R.; Li, J.; Shan, X.; Ling, Y.; Tian, Y.; Dilbeck, T.; Besara, T.; Geske, T.; Gao, H.; Ma, B.; Hanson, K.; Siegrist, T.; Xu, C.; Yu, Z. Fully Printed Halide Perovskite Light-Emitting Diodes with Silver Nanowire Electrodes. *ACS Nano* **2016**, 10, 1795-1801.
45. Cary, S.; Silver, M.; Liu, G.; Wang, J.C.; Bogart, J.; Stritzinger, J.; Arico, A.; Hanson, K.; Schelter, E. J.; Albrecht-Schmitt, T. Spontaneous Partitioning of Californium from Curium: Curious Cases from the Crystallization of Curium Coordination Complexes. *Inorg. Chem.* **2015**, 54, 11399-11404.
44. Ogunsolu, O.O.; Wang, J.C.; Hanson, K. Inhibiting Interfacial Recombination Events in Dye-Sensitizer Solar Cells via Self-Assembled Bilayers. *ACS Appl. Mater. Interfaces* **2015**, 7, 27730-27734.
43. Hill, S.P.; Banerjee, T.; Dilbeck, T.; Hanson, K. Photon Upconversion and Photocurrent Generation via Self-Assembly at Organic-Inorganic Interfaces. *J. Phys. Chem. Lett.* **2015**, 6, 4510-4517.
42. Ling, Y.; Yuan, Z.; Tian, Y.; Wang, X.; Wang, J. C.; Xin, Y.; Hanson, K.; Ma, B.; Gao, H. Bright Light-Emitting Diodes Based on Organometal Halide Perovskite Nanoplatelets. *Adv. Mater.* **2015**, 28, 305-311.
41. Mohamed, R.K.; Mondal, S.; Gold, B.; Evoniuk, C.J.; Banerjee, T.; Hanson, K.; Alabugin, Igor V. Alkenes as Alkyne Equivalents in Radical Cascades Terminated by Fragmentations: Overcoming Stereoelectronic Restrictions on Ring Expansions for the Preparation of Expanded Polyaromatics. *J. Am. Chem. Soc.* **2015**, 137, 6335-6349.
40. Wang, J.C.; Murphy, I.A.; Hanson, K. Modulating Electron Transfer Dynamics at Dye-Semiconductor Interfaces via Self-Assembled Bilayers. *J. Phys. Chem. C* **2015**, 119, 3502-3508.
39. Pati, K.; Gomes, G.; Harris, T.; Hughes, A.; Phan, Hoa; Banerjee, T.; Hanson, K.; Alabugin, I. Traceless Directing Groups in Radical Cascades: From Oligoalkynes to Fused Helicenes without Tethered Initiators. *J. Am. Chem. Soc.* **2015**, 137, 1165-1180.
38. Longstreet, A. R.; Jo, M.; Chandler, R. R.; Hanson, K.; Zhan, N.; Hrudka, J.; Mattoussi, H.; Shatruk, M.; McQuade, D. T. Ylidenemalononitrile Enamines as Fluorescent "Turn-On" Indicators for Primary Amines. *J. Am. Chem. Soc.* **2014**, 136, 15493-15496.
37. Losego, M. D.; Hanson, K. Stabilizing molecular sensitizers in aqueous environs. *Nano Energy* **2013**, 2, 1067-1069.

Graduate and Postdoctoral Work

36. Hyde, J.T.; Hanson, K.; Vannucci, A.K.; Lapides, A.M.; Alibabaei, L.; Norris, M.R.; Meyer, T.J.; Harrison, D.P. Electrochemical Instability of Phosphonate-Derivatized, Ruthenium(III) Polypyridyl Complexes on Metal Oxide Surfaces. *ACS Appl. Mater. Interfaces* **2015**, 7, 9554-9562.
35. Nayak, A.; Knauf, R.; Hanson, K.; Alibabaei, L.; Concepcion, J.; Ashford, D.; Dempsey, J.; Meyer, T.J. Synthesis and photophysical characterization of porphyrin and porphyrin-Ru(II) polypyridyl chromophore-catalyst assemblies on mesoporous metal oxides. *Chem. Sci.* **2014**, 5, 3115-3119.
34. Bettis, S. E.; Hanson, K.; Li, W.; Gish, M.; Concepcion, J.; Fang, Z.; Meyer, T. J.; Papanikolas, J. M. Photophysical Characterization of Chromophore/water Oxidation Catalyst Containing Layer-by-layer Assembly on Nanocrystalline TiO₂ Using Ultrafast Spectroscopy. *J. Phys. Chem. A* **2014**, 118, 10301-10308.
33. Ashford, D. L.; Lapides, A. M.; Vannucci, A. K.; Hanson, K.; Torelli, D. A.; Harrison, D. P.; Templeton, J. L.; Meter, T. J. Water Oxidation by an Electropolymerized Catalyst on Derivatized Mesoporous Metal Oxide Electrodes. *J. Am. Chem. Soc.* **2014**, 136, 6578-6581.
32. Kim, D. H.; Losego, M. D.; Hanson, K.; Alibabaei, L.; Lee, K.; Meyer, T. J.; Parsons, G. N. Stabilizing chromophore binding on TiO₂ for long-term stability of dye-sensitized solar cells using multicomponent atomic layer deposition. *Phys. Chem. Chem. Phys.* **2014**, 16, 8615-8622.
31. Lapides, A. M.; Ashford, D. L.; Hanson, K.; Torelli, D. A.; Templeton, J. L.; Meyer, T. J. Stabilization of a Ruthenium(II) Polypyridyl Dye on Nanocrystalline TiO₂ by an Electropolymerized Overlayer. *J. Am. Chem. Soc.* **2013**, 135, 15450-15458.

30. Hanson, K.; Losego, M. D.; Kalanyan, B.; Ashford, D. L.; Parsons, G. N.; Meyer, T. J. Stabilizing Small Molecules on Metal Oxide Surfaces Using Atomic Layer Deposition. *Nano Lett* **2013**, 13, 4802-4809.
29. Song, W.; Ito, A.; Binstead, R. A.; Hanson, K.; Luo, H.; Brennaman, M. K.; Concepcion, J. J.; Meyer, T. J. Accumulation of Multiple Oxidative Equivalents at a Single Site by Cross-Surface Electron Transfer. *J. Am. Chem. Soc.* **2013**, 135, 11587-11594.
28. Peng, Q.; Kalanyan, B.; Hoertz, P. G.; Miller, A.; Kim, D. H.; Hanson, K.; Alibabaei, L.; Liu, J.; Meyer, T. J.; Parsons, G. N.; Glass, J. T. Solution-Processed Antimony Doped Tin Oxide Colloids Film Enabled High-Performance TiO₂ Photoanodes for Water Splitting. *Nano Lett.* **2013**, 13, 1481-1488.
27. Ma, D.; Bettis, S. E.; Hanson, K.; Alibabaei, L.; Minikova, M.; Papoian, G. A.; Meyer, T. J.; Papanikolas, J. M.; Waters, M. L. Interfacial Energy Conversion in Ru^{II} Polypyridyl-Derivatized Oligoproline Assemblies on TiO₂. *J. Am. Chem. Soc.* **2013**, 135, 5250-5253.
26. Hanson, K.; Wilger, D. J.; Jones, S. T.; Harrison, D. P.; Bettis, S. E.; Luo, H.; Papanikolas, J. M.; Waters, M. L.; Meyer, T. J. Electron Transfer Dynamics of Peptide-Derivatized Ru^{II}-polypyridyl Complexes on Nanocrystalline Metal Oxide Films. *Pept. Sci.* **2013**, 100, 25-37.
25. Giokas, P. G.; Miller, S. A.; Hanson, K.; Norris, M. R.; Glasson, C. R. K.; Concepcion, J. J.; Bettis, S. E.; Papanikolas, J. M.; Meyer, T. J.; Moran, A. M. Spectroscopy and Dynamics of Phosphonated Ruthenium Complexes on TiO₂. *J. Phys. Chem. C* **2013**, 117, 812-824.
24. Luo, H.; Song, W.; Hoertz, P. G.; Hanson, K.; Ghosh, R.; Rangan, S.; Brennaman, M. K.; Concepcion, J. J.; Binstead, R. A.; Lopez, R.; Meyer, T. J. A Sensitized Nb₂O₅ Photoanode for Hydrogen Production in a Dye-Sensitized Photoelectrosynthesis Cell. *Chem. Mater.* **2013**, 25, 122-131.
23. Song, W.; Luo, H.; Hanson, K.; Concepcion, J. J.; Brennaman, M. K.; Meyer, T. J. Visualization of Cation Diffusion at the TiO₂ Interface in Dye Sensitized Photoelectrosynthesis Cells (DSPEC). *Energy Environ. Sci.* **2013**, 6, 1240-1248.
22. Hanson, K.; Torelli, D. A.; Vannucci, A. K.; Brennaman, M. K.; Luo, H.; Alibabaei, L.; Song, W.; Ashford, D. L.; Norris, M. R.; Glasson, C. R. K.; Concepcion, J. J.; Meyer, T. J. Self-assembled Bilayer Films of Ru(II) Polypyridyl Complexes by Layer-by-Layer Deposition on Nanostructured Metal Oxides. *Angew. Chem. Int. Ed.* **2012**, 51, 12782-12785.
21. Hanson, K.; Ashford, D. L.; Concepcion, J. J.; Binstead, R. A.; Luo, H.; Glasson, C. R. K.; Templeton, J. L.; Meyer, T. J. Sensitized PhotoDecomposition of Organic Bis-Phosphonates By Singlet Oxygen. *J. Am. Chem. Soc.* **2012**, 134, 16975-16978.
20. Hanson, K.; Losego, M. D.; Kalanyan, B.; Ashford, D. L.; Parsons, G. N.; Meyer, T. J. Stabilization of [Ru(bpy)₂(4,4'-(PO₃H₂)bpy)]²⁺ on TiO₂ with Atomic Layer Deposition of Al₂O₃. *Chem. Mater.* **2012**, 25, 3-5.
19. Hanson, K.; Hanson, D. A. Le Chatelier's Principle: A Newtonian-based Analogy That Makes Sense. *Chem. Edu.* **2012**, 17, 184-186.
18. Ghosh, R.; Hara, Y.; Alibabaei, L.; Hanson, K.; Rangan, S.; Bartynski, R.; Meyer, T. J.; Lopez, R. Increasing Photocurrents in Dye-Sensitized Solar Cells with Tantalum Doped Titanium Oxide Photoanodes Obtained by Laser Ablation. *ACS Appl. Mater. Interfaces* **2012**, 4, 4566-4570.
17. Song, W.; Chen, Z.; Glasson, C. R. K.; Hanson, K.; Luo, H.; Norris, M. R.; Ashford, D. L.; Concepcion, J. J.; Brennaman, M. K.; Meyer, T. J. Interfacial Dynamics and Solar Fuel Formation in Dye-Sensitized Photoelectrosynthesis Cells. *ChemPhysChem* **2012**, 13, 2882-2890.
16. Hanson, K.; Brennaman, M. K.; Ito, A.; Luo, H.; Song, W.; Parker, K. A.; Ghosh, R.; Norris, M. R.; Glasson, C. R. K.; Concepcion, J. J.; Lopez, R.; Meyer, T. J. Structure-Property Relationships in Phosphonate-Derivatized, Ru^{II} Polypyridyl Dyes on Metal Oxide Surfaces in an Aqueous Environment. *J. Phys. Chem. C* **2012**, 116, 14837-14847.
15. Hanson, K.; Roskop, L.; Patel, N.; Griffe, L.; Djurovich, P. I.; Gordon, M. S.; Thompson, M. E. Photophysical and Electrochemical Properties of 1,3-Bis(2-pyridylimino)isoindolate Platinum(II) Derivatives. *Dalton Trans.* **2012**, 41, 8648-8659.
14. Hanson, K.; Brennaman, M. K.; Luo, H.; Glasson, C. R. K.; Concepcion, J. J.; Song, W.; Meyer, T. J. Photostability of Phosphonate-Derivatized, Ru(II) Polypyridyl Complexes on Metal Oxide Surfaces. *ACS Appl. Mater. Interfaces* **2012**, 4, 1462-1469.

13. Diev, V. V.; Schlenker, C. W.; Hanson, K.; Zhong, Q.; Zimmerman, J. D.; Forrest, S. R.; Thompson, M. E. Porphyrins Fused with Unactivated Polycyclic Aromatic Hydrocarbons. *J. Org. Chem.* **2012**, 77, 143-159.
12. Ghosh, R.; Brennaman, M. K.; Concepcion, J. J.; Hanson, K.; Kumbhar, A. S.; Meyer, T. J.; Lopez, R. Efficient High Surface Area Vertically Aligned Metal Oxide Nanostructures for Dye-Sensitized Photoanodes by Pulsed Laser Deposition. *Proc. SPIE* **2011**, 8109, 81090U/1-81090U/6.
11. Song, W.; Glasson, C. R. K.; Luo, H.; Hanson, K.; Brennaman, M. K.; Concepcion, J. J.; Meyer, T. J. Photoinduced Stepwise Oxidative Activation of a Chromophore-Catalyst Assembly on TiO₂. *J. Phys. Chem. Lett.* **2011**, 2, 1808-1813.
10. Zimmerman, J. D.; Yu, E. K.; Diev, V. V.; Hanson, K.; Thompson, M. E.; Forrest, S. R. Use of Additives in Porphyrin-Tape/C60 Near-Infrared Photodetectors. *Org. Electron.* **2011**, 12, 869-873.
9. Song, W.; Brennaman, M. K.; Concepcion, J. J.; Jurss, J. W.; Hoertz, P. G.; Luo, H.; Chen, C.; Hanson, K.; Meyer, T. J. Interfacial Electron Transfer Dynamics for [Ru(bpy)₂(4,4'-(PO₃H₂)₂bpy)]²⁺-Sensitized TiO₂ in a Dye-Sensitized Photoelectrosynthesis Cell: Factors Influencing Efficiency and Dynamics. *J. Phys. Chem. C* **2011**, 115, 7081-7091.
8. Hanson, K.; Patel, N.; Whited, M. T.; Djurovich, P. I.; Thompson, M. E. Substituted 1,3-Bis(imino)isoindole Diols: A New Class of Proton Transfer Dyes. *Org. Lett.* **2011**, 13, 1598-1601.
7. Hanson, K.; Roskop, L.; Djurovich, P. I.; Zahariev, F.; Gordon, M. S.; Thompson, M. E. A Paradigm for Blue- or Red-Shifted Absorption of Small Molecules Depending on the Site of π -Extension. *J. Am. Chem. Soc.* **2010**, 132, 16247-16255.
6. Diev, V. V.; Hanson, K.; Zimmerman, J. D.; Forrest, S. R.; Thompson, M. E. Fused Pyrene-Diporphyrins: Shifting Near-Infrared Absorption to 1.5 μ m and Beyond. *Angew. Chemie., Int. Ed.* **2010**, 49, 5523-5526.
5. Hanson, K.; Tamayo, A.; Diev, V.; Djurovich, P. I.; Thompson, M. E. Efficient Dipyrin-Centered Phosphorescence at Room Temperature from Bis-Cyclometalated Iridium(III) Dipyrinato Complexes. *Inorg. Chem.* **2010**, 49, 6077-6084.
4. Zimmerman, J. D.; Diev, V. V.; Hanson, K.; Lunt, R. R.; Yu, E. K.; Thompson, M. E.; Forrest, S. R. Porphyrin-Tape/C60 Organic Photodetectors with 6.5% External Quantum Efficiency in the Near Infrared. *Adv. Mater.* **2010**, 22, 2780-2783.
3. Sun, Y.; Borek, C.; Hanson, K.; Djurovich, P. I.; Thompson, M. E.; Brooks, J.; Brown, J.; Forrest, S. R. Photophysics of Pt-Porphyrin Electrophosphorescent Devices emitting in the Near Infrared. *Appl. Phys. Lett.*, **2007**, 90, 213503/1-213503/3.
2. Borek, C.; Hanson, K.; Djurovich, P. I.; Thompson, M. E.; Aznavour, K.; Bau, R.; Sun, Y.; Forrest, S. R.; Brooks, J.; Michalski, L.; Brown, J. Highly Efficient, Near-Infrared Electrophosphorescence from a Pt-Metalloporphyrin Complex. *Angew. Chemie., Int. Ed.* **2007**, 46, 1109-1112.
1. Hanson, K.; Calin, N.; Bugaris, D.; Scancella, M.; Sevov, S. Reversible Repositioning of Zinc Atoms in Single Crystals of a Zinc Polycarboxylate with an Open-Framework Structure. *J. Am. Chem. Soc.* **2004**, 126(34), 10502-10503.

Patents

Pending

13. Hanson, K.; Oates, W.; Beery, D.; Stanisauskis, E.; Photomechanical Polymers, Compositions, And Methods U.S. Pat. Appl. Publ. (2023), US 20200188896A1.
12. Uribe-Romo, F.J.; Logan, M.W.; Hanson, K.; Ayad, S. "Photo-redox titanium containing organic frameworks and methods of making and use thereof" U.S. Pat. Appl. Publ. (2020), US 20200188896A1.

Issued

11. Hanson, K.; Salpage, S.; Albrecht-Schmitt, T.E. "Photochemical Separations and Compositions" U.S. Pat. US 11591277B2 (2023).
10. Hanson, K.; Wang, J. C.; Banerjee, T.; Ogunsolu, O.O. "Modulating Electron Transfer Dynamics at Hybrid Interfaces via Self-Assembled Bilayers" U.S. Pat. US 10916381B2 (2021).
9. Hanson, K.; Hill, S.; Dilbeck, T. "Molecular Photon Upconversion Using Organic-Inorganic Hybrid Interfaces" U.S. Pat. US 10991517 (2021).
8. Hanson, K.; Ayad, S.; Posey, V. Atropisomers and Methods of Altering Enantiomeric Excess. U.S. Pat. US 10584077B2 (2018).

7. Hanson, K.; Meyer, T. J.; Parsons, G. N.; Losego, M. D.; Kalanyan, B.; Kim, D. H. "Assemblies and methods of stabilization" PCT Int. Appl. WO 2014081921 (2014).
6. Hanson, K.; Meyer, T. J. "Molecular assemblies and multilayer films for photocurrent and catalysis" PCT Int. Appl. (2013), WO 2013142595.
5. Thompson, M. E.; Hanson, K.; Djurovich, P. "Fluorescent isoindoline dyes" U.S. Pat. US 9412955B2 (2012).
4. Forrest, S. R.; Zimmerman, J. D.; Thompson, M. E.; Diev, V.; Hanson, K. "Fusing porphyrins with polycyclic aromatic hydrocarbons and heterocycles for optoelectronic applications" U.S. Pat. US9113535B2 (2015).
3. Forrest, S. R.; Zimmerman, J. D.; Thompson, M. E.; Diev, V.; Hanson, K. "Visible/NIR photodetectors" U.S. Pat. US9017826B2 (2015).
2. Thompson, M. E.; Borek, C.; Hanson, K.; Djurovich, P.; Sun, Y.; Forrest, S. "Near-infrared emitting organic compounds and organic devices using the same" U.S. Pat. US7989090B2 (2011).
1. Thompson, M. E.; Hanson, K.; Djurovich, P.; Griffe, L. "Arylimino-isoindoline complexes for use in organic light emitting diodes." U.S. Pat. Appl. Publ. US20090243468 (2009).

Awards/Honors

2025	James Corones Award in Leadership, Community Building and Communication	
2025	ACS Energy Lectureship 'Mid-Career' Finalist	
2024	Academy of Science Engineering and Medicine of Florida Rising Star Award	
2024-2027	Cottrell Family Professorship for Excellence in Classroom and Laboratory Teaching	
2024	Nominated for the FSU Graduate Faculty Mentor Award	
2024	Nominated for the FSU Foundational Course Excellence Teaching Award	
2023	Tallahassee Scientific Society's Gold Medal Award	
2021	Nominated for the FSU Inclusive Teaching and Mentoring Award	
2020	FSU Developing Scholar Award	
2020	Emerging Investigators issue of <i>ACS Applied Energy Materials</i>	
2018	Inter-American Photochemical Society-Young Investigator Award	
2018	FSU Undergraduate Teaching Award	
2018	Emerging Investigators issue of <i>Chemical Society Reviews</i>	
2018	National Science Foundation-CAREER Award	
2018	Rising Star of the International Conference on Coordination Chemistry	
2017	Emerging Investigators issue of <i>Journal of Materials Chemistry A</i>	
2016	AAAS Early Career Award for Public Engagement with Science (Top 5 Finalist)	
2016	"Emerging Investigators in Inorganic Photochemistry and Photophysics" <i>Inorganic Chemistry</i> , 10.1021/acs.inorgchem.6b02830.	
2016	C&EN's ChemPics Tumblr Blog: Blue Moon	
	<i>Chemical & Engineering News</i> July 18, 2016, 94, p11.	
2015	AAAS Early Career Award for Public Engagement with Science (Top 5 Finalist)	
2015	Selected as 1 of 50 "Not to miss" presentations at the Fall 2015 National Meeting of the American chemical Society	
2015	C&EN's ChemPics Tumblr Blog Chemistry Photo of the Year <i>Chemical & Engineering News</i> March 23, 2015, 12, p22.	
2014	Army Research Office-Young Investigator Program Award	
2009	William P. Weber Award for Outstanding Research and Mentoring	USC
2006	Outstanding Performance in Teaching, General Chemistry	USC
2003	Biophysical Chemistry Student of the Year	SCSU
2002	Organic Chemistry Student of the Year	SCSU

Grants (as PI unless otherwise noted)

2024	National Science Foundation, "Understanding and Controlling Structure in Metal Ion-Linked Multilayer Upconversion Solar Cells" 3/01/24-2/28/27, \$499,362.
2023	National Science Foundation, "CAS: Inhibiting Molecular Reorganization via Strategic Surface Binding" 06/1/18-05/31/23, \$495,273.
2023	Department of Energy, "Support for the 30th Annual Meeting of the Inter-American Photochemical Society", 1/01/23-12/31/24, \$10,000.

2021	FSU CRC Multidisciplinary Support Program, "Light Fueled Shape Shifting Materials Enabled by Advanced Engineering Mechanics and Novel Photochemical Reactions" 04/01/21-05/1/22, \$25,000.(PI: William Oates, co-PI Kenneth Hanson)
2020	FSU Developing Scholar Award (\$10,000)
2019	National Science Foundation, "MRI: Acquisition of an Ultrafast Transient Absorption Spectrometer" 07/01/19-06/30/22, \$321,490.
2019	Army Research Office, "Understanding and Controlling the Structure at Organic-Inorganic Interfaces for the Generation of Stimuli Responsive Multilayered Materials" 06/05/19 - 06/04/22, \$425,035.
2018	National Science Foundation, "CAREER: Harnessing Photon Upconversion Via Self-Assembled Hybrid Materials" 06/1/18-05/31/23, \$549,028.
2016	Department of Energy, "EFRC: Center for Actinide Science", 08/01/16-07/31/20, \$10,000,000. (PI: Thomas Albrecht-Schmitt, co-PI Kenneth Hanson + several others)
2015	National Science Foundation, "MRI: Acquisition of a Transient Absorption Spectrometer" National Science foundation, 08/15/15-07/31/18, \$206,847.
2014	Army Research Office-Young Investigator Program Award, "Asymmetric Electron Transfer Rates at Organic-Inorganic Hybrid Interfaces via Self-Assembled Bilayers" 09/30/14-09/29/17, \$150,000.
2014	American Chemical Society-Petroleum Research Fund, "Controlling the Absolute Stereochemistry of Prochiral Substrates with Chiral Excited-State Proton Transfer Dyes" 09/01/14-08/31/16, \$110,000.
2014	DARPA/Invincea Inc. "Polymer-Embedded Gamma-Ray Detectors." 04/01/14-01/31/15, \$95,664. (PI: Mike Shatruk, co-PI Kenneth Hanson + 2 others)
2013	FSU CRC First Year Assistant Professor Award, "Self-Assembled Bilayers for Application in Dye-Sensitized Solar Cells" 05/05/14-08/08/14, \$20,000.

Awards and Honors Received by Mentees

2025	Cody Basquill, Professor Jack Saltiel Undergraduate Research Award
2025	Henry London, National Defense Science and Engineering Graduate (NDSEG) Fellowship
2025	Jackson Nolder, Department of Energy, I-APS Meeting Undergraduate Student Travel Award
2025	Ethan Lambert, Department of Energy, I-APS Meeting Graduate Student Travel Award
2024	Pradip Sahu, FSU Quantum Postdoctoral Fellowship
2024	Ethan Lambert, Howard W. Smoyer Endowed Graduate Scholarship in Chemistry (FSU)
2024	Ethan Lambert, Dean's Doctoral Scholar Award (FSU)
2024	Ben Hanks, Dean's Award for Doctoral Excellence (FSU)
2024	Grace McLeod, Johnsen Award for Excellence in Materials Chemistry (FSU)
2024	Sarah Lindbom, Undergraduate Poster Award, Inter-American Photochemical Society Meeting
2023	Ashley Arcidiacono, Beckman Postdoctoral Fellowship
2023	Erica Knorr, Philip Schlenoff Graduate Travel Award (FSU)
2023	Ashley Arcidiacono, Graduate Student Research and Creativity Award (FSU)
2023	Ben Hanks, Katherine Blood Hoffman Excellence Award (FSU)
2023	Ashley Arcidiacono, Graduate Poster Award, Inter-American Photochemical Society Meeting
2023	Erica Knorr, Graduate Poster Award, Inter-American Photochemical Society Meeting
2023	Sarah Lindbom, Undergraduate Poster Award, Inter-American Photochemical Society Meeting
2022	Grace McLeod, Cheryl & Joel Rosenfield Endowment Award (FSU)
2022	Ashley Arcidiacono, Philip Schlenoff Graduate Travel Award (FSU)
2021	Ashley Arcidiacono, Cheryl & Joel Rosenfield Endowment Award (FSU)
2021	Ashley Arcidiacono, DoD SMART Semi-Finalist
2020	Ashley Arcidiacono, Wilder Scholarship (FSU)
2020	Ashley Arcidiacono, ACS Graduate Student Symposium Planning Committee Award
2019	Cory Ruchlin, FSU Outstanding Undergraduate Senior Award
2019	Victoria Posey, NSF-Graduate Research Fellow
2019	Ashley Arcidiacono, NSF-Graduate Research Fellow (honorable mentioned)
2019	Yan Zhou, FSU Art in Stem Exhibition (finalist)
2019	Yan Zhou, Philip Schlenoff Graduate Travel Award
2019	Yan Zhou, FSU Graduate Student Research and Creativity Award
2019	Sahan Salpage, 3 rd place poster, Inter-American Photochemical Society Meeting
2018	Omotola Ogunsolu, James S. Brooks Graduate Student Award
2018	Jamie Wang, FSU Outstanding Inorganic Chemistry Graduate Student Award
2018	Jamie Wang, FSU Art in Stem Exhibition (finalist)
2018	Victoria Posey, DeLos and Francis DeTar Scholarship
2018	Victoria Posey, Philip Schlenoff Endowment for Undergraduate Excellence Research Award

2018	Tristan Dilbeck, Philip Schlenoff Graduate Travel Award
2018	Andrew Olsson, Professor Jack Saltiel Undergraduate Research Award
2018	Suli Ayad, FSU Teaching Assistant Award Nominee
2017	Tristan Dilbeck, Ramaille and Usher Graduate Student Award
2017	Justin Silver, Philip Schlenoff Undergraduate Research Fellowship
2017	Tristan Dilbeck, Carl Storm Travel Fellowship
2017	Omotola Ogunsolu, People's Choice Award, FSU 2017 Art in STEM Exhibition
2017	Suliman Ayad, Judges Choice Runner Up, FSU 2017 Art in STEM Exhibition
2017	Omotola Ogunsolu, DAAD RISE Professional Scholarship
2016	Tristan Dilbeck, 2nd place graduate poster, Florida Inorganic/Material Symposium
2016	Kyle Violette, 1st place undergraduate poster, ACS Florida Annual Meeting and Exposition
2016	Omotola Ogunsolu, Summer Institute for Sustainability and Energy Prize
2016	Tristan Dilbeck, Ford Foundation Fellowship (honorable mentioned)
2015	Omotola Ogunsolu, FSU Art in Stem Competition (runner-up)
2015	Jamie C. Wang, NSF-Graduate Research Fellow
2015	Omotola Ogunsolu, Ventura Neale International Peace Scholarship
2015	Ian Murphy, 1st place undergraduate poster, ACS Florida Annual Meeting and Exposition
2015	Sean Hill, 2nd place graduate poster, ACS Florida Annual Meeting and Exposition
2015	Jamie C. Wang, 1st place graduate poster, Florida Inorganic/Material Symposium
2015	Sean Hill, 3rd place graduate poster, Florida Inorganic/Material Symposium
2015	Ian Murphy, 1st place undergraduate poster, Florida Inorganic/Material Symposium
2015	Catherine Ken, 2nd place undergraduate poster, Florida Inorganic/Material Symposium
2014	Omotola Ogunsolu, Reverie Innovation Scholarship
2014	Jamie C. Wang, 2nd place graduate poster, Florida Inorganic/Material Symposium

Current Membership in Professional Organizations

Tallahassee Scientific Society
American Chemical Society
Inter-American Photochemical Society
Phi Lambda Upsilon, The National Chemistry Honor Society
Sigma Xi, The Scientific Research Society

Courses Taught

CHM5710	Chemical Structure and Bonding	Graduate	Fall 2013
CHM5175	Measurements and Data Analysis in Chemistry	Graduate	Fall 2014
CHM4905	Directed Individual Study	Undergraduate	Fall 2014 -
CHM1051	Honors General Chemistry II	Undergraduate	Spring 2015
CHM4906	Honors Work	Undergraduate	Summer 2015 -
CHM1046	General Chemistry II	Undergraduate	Fall 2015
CHM5555	Chemical Reactivity	Graduate	Spring 2016
CHM1051	Honors General Chemistry II	Undergraduate	Spring 2017
CHM1046	General Chemistry II	Undergraduate	Fall 2017
CHM5681	Physical Methods in Inorganic Chemistry	Graduate	Fall 2018
CHM1046	General Chemistry II	Undergraduate	Spring 2019
CHM1046	General Chemistry II	Undergraduate	Fall 2019
CHM1046	General Chemistry II	Undergraduate	Fall 2020
CHM1046	General Chemistry II	Undergraduate	Fall 2021
CHM5541	Group Theory and Inorganic Spectroscopy	Graduate	Spring 2022
CHM1046	General Chemistry II	Undergraduate	Fall 2022
CHM1046	General Chemistry II	Undergraduate	Fall 2023
CHM1046	General Chemistry II	Undergraduate	Fall 2024

Presentations and Conferences

2025, September 11	Uppsala University; Department of Chemistry, "Understanding and Controlling Light Harvesting Structures at Molecule-Metal Oxide Interfaces." (Invited Talk)
2025, September 8	Florida State University, Alpha Chi Sigma, "Graduate School Demystified." (Invited Talk)
2025, July 30	Lewiston, Maine; Gordon Research Conference on Photochemistry, "Increasing excited state lifetimes of coordination complexes via strategic surface binding." (Invited Talk)

2025, March 23	San Diego, California; Spring National ACS Meeting, " Harnessing molecular photon upconversion using self-assembled multilayers on metal oxide surfaces: Progress and prospects" (Award Talk)
2025, March 5	Tallahassee, Florida; FSU College of Social Work, "Identifying Generative Artificial Intelligence Chatbot Use on Multiple-Choice, General Chemistry Exams Using Rasch Analysis" (Invited Talk)
2025, January 15	Tallahassee, Florida; FSU Faculty Innovator Coffee Chat Seminar, "Identifying Generative Artificial Intelligence Chatbot Use on Multiple-Choice, General Chemistry Exams Using Rasch Analysis" (Invited Talk)
2024, July 10	Lisbon, Portugal; Fusion Frontiers in Photochemistry, "Structural Insights into Metal Ion Linked Molecular Multilayers Using Polarized Spectroscopy" (Invited Talk)
2024, April 4	University of Mississippi, Department of Chemistry, "Harnessing Molecular Photon Upconversion Using Self-Assembled Multilayers on Metal Oxide Surfaces" (Invited Talk)
2024, January 19	Florida State University, Department of Chemistry & Biochemistry, "Understanding and Controlling Structure and Excited State Dynamics at Molecule-Metal Oxide Interfaces" (Invited Talk)
2024, January 3	Destin, Florida; Inter-American Photochemical Society Meeting (I-APS), "Structural Insights into Metal Ion Linked Molecular Multilayers Using Polarized Spectroscopy" (Invited Talk)
2023, November 17	Florida State University, Department of Chemistry & Biochemistry, "Using Classical and Modern Testing Theory to Analyze and Improve General Chemistry Exams/Classes" (Contributed Talk)
2023, November 2	Tallahassee, Florida; Tallahassee Scientific Society Gold Medal Award Ceremony, "Photochemical Research and Science Outreach in the Age of Social Media" (Award Talk)
2023, October 30	Florida State University, Alpha Chi Sigma, "Graduate School Demystified." (Invited Talk)
2023, October 13	St. Thomas University, Department of Chemistry, "Harnessing Molecular Photon Upconversion Using Self-Assembled Multilayers on Metal Oxide Surfaces" (Invited Talk)
2023, September 9	Light as Reagent and Product Online Seminar Series, "Harnessing Molecular Photon Upconversion Using Self-Assembled Multilayers on Metal Oxide Surfaces" (Invited Talk via Zoom)
2023, April 19	Bethel University, Department of Chemistry, "Harnessing Molecular Photon Upconversion Using Self-Assembled Multilayers on Metal Oxide Surfaces" (Invited Talk)
2023, April 18	University of Minnesota, Department of Chemistry, "Harnessing Molecular Photon Upconversion Using Self-Assembled Multilayers on Metal Oxide Surfaces" (Invited Talk)
2023, April 17	St. Cloud State University, Department of Chemistry, "Harnessing Molecular Photon Upconversion Using Self-Assembled Multilayers on Metal Oxide Surfaces" (Invited Talk)
2022, October 12	Milan, Italy; International Symposium on Singlet Fission and Photon Fusion, "TTA-UC Solar Cells: Understanding and Controlling the Structure of Metal Ion Linked Multilayer Photoanodes" (Invited Talk)
2022, August 4	Newport, Rhode Island; Gordon Research Conference on Electron Donor-Acceptor Interactions, "Understanding and Controlling Molecular Structure and Excited State Dynamics at Dye-Metal Oxide Interfaces" (Invited Talk)
2022, May 24	Cancun, Mexico; Fusion Frontiers in Photochemistry, "Impact of Structure on Energy and Electron Transfer At Molecular Multilayer-Metal Oxide Interfaces" (Invited Talk)
2022, May 6	Tallahassee, Florida; FSU Postdoctoral Association, Career Development Workshop, "One Postdoc's Journey on the Academic Job Market" (Invited Talk)

2022, April 8	University of South Carolina, Department of Chemistry, "Harnessing Molecular Photon Upconversion Using Self-Assembled Multilayers on Metal Oxide Surfaces" (Invited Talk)
2022, March 23	San Diego, California; Spring 2022 National ACS Meeting, Kasha Symposium, "Facilitating Organic Transformations via Triplet Excited States" (Invited Talk)
2022, March 8	University of Alabama, Department of Chemistry, "Harnessing Molecular Photon Upconversion in Dye-Sensitized Solar Cells" (Invited Talk)
2022, February 4	Villanova, Department of Chemistry, "Applied Molecular Photophysics: My 25-Year Journey in Color Chemistry" (Invited Talk via Zoom)
2021, November 13	Birmingham, Alabama; Southeastern Regional Meeting of the American Chemical Society "Excited State Proton Transfer Dye with an Emission Quantum Yield up to 60% upon Zn ²⁺ Coordination" (Invited talk)
2021, November 12	Birmingham, Alabama; Southeastern Regional Meeting of the American Chemical Society "Using Classical Test Theory and Rasch Modeling to Improve General Chemistry Exams on a Per Instructor Basis" (Invited talk)
2021, November 11	Birmingham, Alabama; Southeastern Regional Meeting of the American Chemical Society "Molecular Z-Scheme for H ₂ Production via Dual Photocatalytic Cycles" (Invited talk)
2021, March 25	Seaton Hall University, Department of Chemistry & Biochemistry. "Organic Transformations via Excited State Proton Transfer" (Invited Talk via Zoom)
2021, March 23	William Patterson University, Department of Chemistry, "Harnessing Molecular Photon Upconversion Using Self-Assembled Multilayers on Metal Oxide Surfaces" (Invited Talk via Zoom)
2021, March 10	Madrid, Spain; NanoGE Conference, "Harnessing Molecular Photon Upconversion in Dye-Sensitized Solar Cells" (Invited Talk via Zoom)
2020, October 28	Florida Southern University, Department of Chemistry & Biochemistry, "Harnessing Molecular Photon Upconversion Using Self-Assembled Multilayers on Metal Oxide Surfaces" (Invited Talk via Zoom)
2020, February 22	Nassau, Bahamas; Fusion Frontiers in Photochemistry, "Photon Upconversion at Dye-Metal Oxide Interfaces: The Role of Molecular and Multilayer Structure" (Invited Talk)
2019, January 4	Sarasota, Florida; Inter-American Photochemical Society Meeting (I-APS), "Chemical Transformations via Photoinduced Proton and Electron Transfer" (Award Talk)
2018, September 6	Auburn University, Department of Chemistry & Biochemistry, "Harnessing Molecular Photon Upconversion Using Self-Assembled Multilayers on Metal Oxide Surfaces" (Invited Talk)
2018, August 31	Florida State University, Department of Chemistry & Biochemistry, "Harnessing Molecular Photon Upconversion Using Self-Assembled Multilayers on Metal Oxide Surfaces" (Invited Talk)
2018, August 1	Sendai, Japan; 43rd International Conference on Coordination Chemistry, "Harnessing Molecular Photon Upconversion Using Transition Metal Ion Linked Molecular Multilayers on Metal Oxide Surfaces" (Invited Talk)
2018, April 17	Göteborg, Sweden; International Symposium on Singlet Fission and Photon Fusion, "Role of the Sensitizer and Acceptor in Photon Upconversion Multilayers on Metal Oxide Surfaces" (Invited Talk)
2018, April 11	University of California-Los Angeles, Department of Chemistry & Biochemistry, "Harnessing Molecular Photon Upconversion Using Self-Assembled Multilayers on Metal Oxide Surfaces" (Invited Talk)
2018, April 10	University of Southern California, Department of Chemistry, "Harnessing Molecular Photon Upconversion Using Self-Assembled Multilayers on Metal Oxide Surfaces" (Invited Talk)

2018, April 9	California Institute of Technology, Division of Chemistry and Chemical Engineering, "Harnessing Molecular Photon Upconversion Using Self-Assembled Multilayers on Metal Oxide Surfaces" (Invited Talk)
2018, April 6	University of California-Riverside, Department of Chemistry, "Harnessing Molecular Photon Upconversion Using Self-Assembled Multilayers on Metal Oxide Surfaces" (Invited Talk)
2018, March 21	New Orleans, Louisiana; Spring 2018 National ACS Meeting, PCET PhotoCatalysis with Inorganic Molecules & Materials Symposium, "Modulating electron transfer dynamics at dye-semiconductor interfaces via self-assembled bilayers" (Invited Talk)
2018, March 18	New Orleans, Louisiana; Spring 2018 National ACS Meeting, Frontiers in Synthetic Organic Photochemistry, "Organic transformations via excited state proton transfer" (Invited Talk)
2018, February 23	University of Texas-San Antonio, Department of Chemistry, "Harnessing Molecular Photon Upconversion Using Self-Assembled Multilayers on Metal Oxide Surfaces" (Invited Talk)
2018, February 13	University of Pennsylvania, Department of Chemistry, "Harnessing Molecular Photon Upconversion Using Self-Assembled Multilayers on Metal Oxide Surfaces" (Invited Talk)
2018, February 12	Villanova, Department of Chemistry, "Harnessing Molecular Photon Upconversion Using Self-Assembled Multilayers on Metal Oxide Surfaces" (Invited Talk)
2018, February 7	University of Washington, Department of Chemistry, "Harnessing Molecular Photon Upconversion Using Self-Assembled Multilayers on Metal Oxide Surfaces" (Invited Talk)
2018, February 2	North Carolina State University, Department of Chemistry, "Harnessing Molecular Photon Upconversion Using Self-Assembled Multilayers on Metal Oxide Surfaces" (Invited Talk)
2018, February 1	Duke, Department of Chemistry, "Pushing the Efficiency Limits of Solar Cells with Molecular Photon Upconversion" (Invited Talk)
2018, January 31	University of North Carolina at Chapel Hill, Department of Chemistry, "Harnessing Molecular Photon Upconversion Using Self-Assembled Multilayers on Metal Oxide Surfaces" (Invited Talk)
2018, January 23	National Renewable Energy Laboratory (NREL), Center for Advanced Solar Photophysics, "Harnessing Molecular Photon Upconversion Using Self-Assembled Multilayers on Metal Oxide Surfaces" (Invited Talk)
2018, January 22	University of Colorado-Boulder, Department of Chemistry and Biochemistry, "Harnessing Molecular Photon Upconversion Using Self-Assembled Multilayers on Metal Oxide Surfaces" (Invited Talk)
2018, January 19	University of Central Florida, Department of Chemistry, "Harnessing Molecular Photon Upconversion Using Self-Assembled Multilayers on Metal Oxide Surfaces" (Invited Talk)
2018, January 18	University of South Florida, Department of Chemistry, "Harnessing Molecular Photon Upconversion Using Self-Assembled Multilayers on Metal Oxide Surfaces" (Invited Talk)
2018, January 11	Northwestern University, Department of Chemistry, "Harnessing Molecular Photon Upconversion Using Self-Assembled Multilayers on Metal Oxide Surfaces" (Invited Talk)
2017, December 5	Fukoka, Japan; 5th CMS International Symposium on Photofunctional Chemistry and Molecular Systems, "Harnessing Molecular Photon Upconversion Using Self-Assembled Multilayers on Metal Oxide Surfaces" (Invited Talk)
2017, November 21	Georgia Institute of Technology, Department of Chemistry & Biochemistry, "Harnessing Molecular Photon Upconversion Using Self-Assembled Multilayers on Metal Oxide Surfaces" (Invited Talk)
2017, November 9	Charlotte, North Carolina, Southeastern Regional Meeting of the American Chemical Society "Modulating Electron Transfer Dynamics at Dye-Semiconductor Interfaces via Self-Assembled Bilayers" (Invited talk)

2017, October 2	Los Alamos National Lab, EFRC-CAST Centerwide Annual Meeting "Wavelength Selective Photochemical Transformations Using Electroactive Ligands" (Invited Talk)
2017, September 19	University of Florida, Department of Chemistry, "Harnessing Molecular Photon Upconversion Using Self-Assembled Multilayers on Metal Oxide Surfaces" (Invited Talk)
2017, August 25	University of South Alabama, Department of Chemistry, "Harnessing Molecular Photon Upconversion Using Self-Assembled Multilayers on Metal Oxide Surfaces" (Invited Talk)
2017, August 21	Washington DC; Fall 2017 National ACS meeting, Symposium on the Triplet Excited State in Inorganic Chemistry, "Harnessing low energy triplet states via molecular photon upconversion at organic-inorganic interfaces" (Invited Talk)
2017, July 24	Washington DC; EFRC-Hub-CMS PI Meeting, "Wavelength Selective Photochemical Transformations Using Electroactive Ligands" (Invited Talk)
2017, July 23	Lewiston, Maine; Gordon Research Conference on Photochemistry, "Harnessing Molecular Photon Upconversion Using Self-Assembled Multilayers on Metal Oxide Surfaces." (Invited Talk)
2017, May 19	Tallahassee, Florida; FSU Postdoctoral Association Spring Workshop: Breaking out of your postdoc, "'Get a Job, Ken!' One postdoc's journey on the academic job market." (Invited Talk)
2017, May 5	Palm Harbor, Florida; Florida Annual Meeting and Exposition, "Get a Job, Ken!' One postdoc's journey on the academic job market." (Invited Talk)
2017, April 21	Phoenix, Arizona; Spring 2017 National MRS meeting, " Photon Upconversion Dye-Sensitized Solar Cells via Self-Assembled Multilayers" (Contributed Talk)
2017, April 20	Phoenix, Arizona; Spring 2017 National MRS meeting, " Photon Upconversion Dye-Sensitized Solar Cells via Self-Assembled Multilayers" (Invited Talk)
2017, March 10	Tampa Bay, Florida; Moffitt Cancer Center 4th Annual Junior Scientist Retreat, "'Get a Job, Ken!' One postdoc's journey on the academic job market." (Invited Talk)
2017, March 3	Tallahassee, Florida; FSU Fellows Forum 2017, "Ask a Scientist: Engaging the Tallahassee Community in Science One Person at a Time" (Invited Talk)
2016, September 23	Jacksonville, Florida; University of North Florida Chemistry Departmental Seminar, "Photon Upconversion Dye-Sensitized Solar Cells via Self-Assembled Bilayers on Nanocrystalline Metal Oxides " (Invited Talk)
2016, September 23	Jacksonville, Florida; University of North Florida Chemistry Seminar, "Transient Absorption Spectroscopy " (Invited Talk)
2016, August 21-25	Philadelphia, Pennsylvania; Fall 2016 National ACS meeting, Special Symposium to Celebrate the 75th Birthday of Thomas J. Meyer, "Energy and electron transfer dynamics of photon upconversion in self-assembled bilayers " (Organizer/Invited Talk)
2016, Apr. 18-21	Gothenburg, Sweden; 1st International Symposium on Singlet Fission and Photon Fusion, "Photon Upconversion Dye-sensitized Solar Cells via Self-Assembled Bilayers on Nanocrystalline Metal Oxides" (Contributed Talk)
2015, Nov. 2-4	Harbin China; Workshop on Nanomaterials for Energy and Biotechnology, "Photon Upconversion and Photocurrent Generation via Self-Assembly at Hybrid Interfaces" (Invited Talk)
2015, July 19-24	Easton, Massachusetts; Gordon Research Conference on Photochemistry, "Photon upconversion and photocurrent generation via self-assembled bilayers on metal oxide surfaces" (Poster/Invited Talk)
2015, May 7	Palm Harbor, Florida; Florida Annual Meeting and Exposition, "Photon upconversion and photocurrent generation via self-assembled bilayers on metal oxide surfaces" (Invited Talk)

2015, March 22-26	Denver, Colorado; Spring 2015 National ACS meeting, ACS Award in the Chemistry of Materials: Symposium in Honor of Mark E. Thompson, "Photon upconversion and photocurrent generation via self-assembled bilayers on metal oxide surfaces" (Invited Talk)
2015, September 13	FAMU–FSU, Chemical & Biomedical Engineering, "Manipulating Energy and Electron Transfer Dynamics at Dye-Semiconductor Interfaces via Self-Assembled Bilayers" (Invited Talk)
2014, September 25	College of Charleston, Department of Chemistry and Biochemistry, "Manipulating Electron and Energy Transfer at Organic-Inorganic Hybrid Interfaces" (Invited Talk)
2013, October 10	FAMU–FSU, Electrical Engineering, "Self-Assembled Bilayers for Use in Dye-sensitized Solar Cells: A New Architecture with New Opportunities" (Invited Talk)
2013, September 25	FSU, Materials Science & Engineering, "Self-Assembled Bilayers for Use in Dye-sensitized Solar Cells: A New Architecture with New Opportunities" (Invited Talk)
2013, September 9	FAMU–FSU, Chemical & Biomedical Engineering, "Self-Assembled Bilayers for Use in Dye-sensitized Solar Cells: A New Architecture with New Opportunities" (Invited Talk)

Leadership and Science Advocacy

October 8, 2024	FSU Discovery Days, Discussion Panelist on "Why Engaging the Public Matters"	
2024-present	FSU Faculty Senator (elected)	
2023-present	UFF-FSU Chemistry Department Steward	
2023-present	Advisory board member for the Inter-American Photochemical Society (Elected)	
2023-2025	FSU ADVANCE SEA Change Leadership Council Member	
2021-present	Reviewer for the Florida Department of Education Statewide Science Assessments	
2020-present	Founder and organizer of bi-monthly Ask a Scientist Gaming on Twitch	
2020-present	Editorial Advisory Board, the <i>Journal of Photochemistry and Photobiology</i>	
January 3-6, 2023	Organizer for the Inter-American Photochemical Society Meeting	Miramar Beach, Florida
October 17, 2022	FSU Freshman Interest Groups guest speaker "One Professors Journey on the Academic Roller Coaster"	
October 5, 2022	TechWomen Mentor, U.S. Department of State's Bureau of Educational and Cultural Affairs.	
July 7, 2022	FSU Office of Research Development, Internal NSF-CAREER review panel	
June 6-7, 2022	NSF Chemistry Early Career Investigator Workshop, Washington DC (senior mentor/panel member)	
May 20, 2022	ACS, 26th Annual Green Chemistry & Engineering Conference "Careers in Green Chemistry for Sustainable Use" (Q&A Panel Member)	
May 6, 2022	FSU Postdoctoral Association, Career Development Workshop (Presenter/panel member)	
August 19-21, 2019	Organizer for the Charge Transport in Organic Materials session, IEEE Research and Applications of Photonics in Defense	Miramar Beach, Florida
2018-2020	Contributor, The Impact of Chemistry on Society (MRS and DOD)	
September 18, 2018	Contributor, Florida Crossroads – Sun Power in the Sunshine State (WFSU/The Florida Channel)	
2018-2020	Contributor, Strange Evidence, Discovery Network (Seasons 2-4)	
August 1-4, 2018	Organizer for the Rising stars in coordination chemistry session, 2018 International Conference on Coordination Chemistry	Sendai, Japan
August 21-25, 2016	Organizer for the special symposium "INOR: Manipulating Energy and electron transfer in molecules and devices." Fall 2016 National ACS Meeting	Philadelphia, PA
May 5-7, 2016	Organizer for the Materials subdivision of the ACS Florida Annual Meeting and Exposition	Tampa Bay, FL
June 24, 2015	Panelist for SCIENCE 2034 Live Congressional Briefing	Washington, DC
2014-2016	"Build your own DSSC" with MoLab Inc. Science Outreach	FSU
2014-2020	Founder and organizer of the monthly Ask a Scientist event (First Friday)	FSU
2011 – 2013	EFRC Interface Characterization Team Coordinator	UNC
2010 – 2013	Guest Lecturer for the Climate Leadership and Energy Awareness Program	UNC
2010 – 2011	EFRC Devices Team Coordinator	UNC
2009 – present	Contributor: www.chemistry-blog.com Highlights: "Blogroll: Take a deep breath" <i>Nature Chemistry</i> 2010 , 2, 73	
2008 – present	Forum moderator: www.reddit.com/r/chemistry/	
2008 – 2009	Inorganic Chemistry Journal Club Coordinator	USC
2004 – 2005	Chemistry Club Vice President	SCSU
2003 – 2004	Chemistry Club Public Relations Director	SCSU
2002 – 2005	Chemistry Club Member	SCSU

Undergraduate Students Supervised

Ian Murphy	Chemistry	FSU	Fall 2013-Spring 2016
Bryan Casale	Chemistry	FSU	Spring 2014-Summer 2016

Enric Baduel	Chemical Engineering	FSU	Spring 2014-Fall 2016
Catherine Kent	Chemistry/Mechanical Engineering	FSU	Fall 2014- Fall 2016
Kyle Violette	Chemistry	FSU	Spring 2015-Spring 2017
Justin Silver	Chemistry	FSU	Fall 2016-Fall 2017
Tori Posey	Chemistry	FSU	Fall 2016-Spring 2019
Alex Braun	Chemical Engineering	FSU	Fall 2016-Spring 2019
Ronald Lanzetta	Chemistry	FSU	Spring 2017-Spring 2018
Andrew Olsson	Chemistry	FSU	Spring 2017-Spring 2019
Karine David	Biomedical	FAMU	Summer 2017 (REU)
Cory Ruchlin	Chemistry	FSU	Fall 2017-Spring 2019
Jacob Schaffner	Chemistry	UNT	Summer 2018 (REU)
Caleb Haake	Chemistry	FSU	Summer 2018-Fall 2018
Dalton Miles	Chemistry	FSU	Fall 2018-Spring 2020
Jonathan Wheeler	Chemical Engineering	FSU	Summer 2019-Spring 2021
Autumn Peters	Chemistry	Millersville	Summer 2019 (REU)
Sarah Lindbom	Chemistry	FSU	Spring 2022-Spring 2024
Jackson Nolder	Chemistry	FSU	Fall 2022-
Cody Basquill	Chemistry	FSU	Spring 2023-
Dominic Willadsen	Chemistry	Concordia UW	Summer 2023 (REU)
Spencer Schneider	Chemistry	FSU	Fall 2023-Fall 2024
Hanna Ashby	Chemistry	FSU	Spring 2024-
Luke Jodoin	Chemistry	UAFS	Summer 2024 (REU)
Matthew McGarry	Chemistry	FSU	Spring 2025-
Maria Duarte	Chemistry	FSU	Spring 2025-

Graduate Students Supervised as Major Professor

Jamie Wang	Chemistry	FSU	Fall 2013-Spring 2018
Sean Hill	Chemistry	FSU	Fall 2013-Spring 2018
Omotola Ogunsolu	Materials Science & Engineering	FSU/FAMU	Fall 2014-Spring 2018
Tristan Dilbeck	Chemistry	FSU	Fall 2014-Spring 2019
Suliman Ayad	Chemistry	FSU	Fall 2015-Spring 2020
Yan Zhou	Chemistry	FSU	Fall 2015-Spring 2020
Drake Beery	Chemistry	FSU	Fall 2017-Spring 2022
Alex Robb	Chemistry	FSU	Fall 2017-Spring 2022
Ashley Arcidiacono	Chemistry	FSU	Fall 2018-Spring 2023
Jiaqi Chen	Chemistry	FSU	Fall 2018-Spring 2023
Noelle Watson	Chemistry	FSU	Fall 2019-Fall 2023 (M.S.)
Erica Knorr	Chemistry	FSU	Fall 2019-Spring 2024
Grace McLeod	Chemistry	FSU	Fall 2020-Spring 2025
Iqra Fatima	Chemistry	FSU	Spring 2022-Spring 2024
Ben Hanks	Chemistry	FSU	Fall 2022-
Henry London	Chemistry	FSU	Fall 2022-
Ethan Lambert	Chemistry	FSU	Fall 2023-
Konrad Sehler	Chemistry	FSU	Fall 2024-
Holly Konrad	Chemistry	FSU	Fall 2024-

Postdoctoral Researchers Supervised

Tanmay Banerjee	Chemistry	FSU	Spring 2014-Spring 2017
Anjan Das	Chemistry	FSU	Fall 2015-Summer 2017
Sahan Salpage	Chemistry	FSU	Fall 2016-Fall 2019
Pradip Sahu	Chemistry	FSU	Spring 2025-