

# DR. MARK A. OLSON

Twitter: @MARK\_A\_OLSON

[www.olsonlaboratory.com](http://www.olsonlaboratory.com)

(310)-591-0784  
mark.olson@tamucc.edu

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## EDUCATION

### PhD Chemistry – August 2010

Northwestern University (NU), Evanston, IL, USA

PhD Advisor: Professor Sir J Fraser Stoddart (*2016 Nobel Prize Winner in Chemistry*)

Began graduate career at UCLA followed by a group move to NU

Thesis: The Materials Chemistry of the Mechanical Bond and its Supramolecular Precursors: Their Formation under Kinetic and Thermodynamic Control

### BSc Chemistry – May 2005

Texas A&M University Corpus Christi, Corpus Christi, TX, USA

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## PROFESSIONAL EXPERIENCE

### Associate Professor of Chemistry / Former Chemistry Program Coordinator (tenure track)

Department of Physical & Environmental Sciences  
Texas A&M University Corpus Christi

Corpus Christi, TX, USA  
2021–Present

### Research Associate Professor (non-tenure track)

Department of Chemistry  
Northwestern University

Evanston, IL, USA  
2020–2021

### National 1000 Talents Plan Professor of Chemistry (non-tenure track)

School of Pharmaceutical Science and Technology  
Tianjin University

Tianjin, Peoples Republic of China  
2015–2020

### Assistant Professor of Chemistry (tenure track)

Department of Physical & Environmental Sciences  
Texas A&M University Corpus Christi

Corpus Christi, TX, USA  
2010–2015

### Graduate Research Assistant

Northwestern University

Evanston, IL, USA  
2007–2010

- PhD Advisor: Professor Sir J Fraser Stoddart

### Graduate Research Assistant

California Nanosystems Institute (CNSI)  
University of California at Los Angeles (UCLA)

Los Angeles, CA, USA  
2005–2007

- PhD Advisor: Professor Sir J Fraser Stoddart

### Teaching Assistant

Los Angeles, CA, USA  
University of California at Los Angeles (UCLA)

2005–2007

### Undergraduate Research Assistant

Texas A&M University Corpus Christi

Corpus Christi, TX, USA  
2003–2005

- Advisors: Professors Eugene and Fereshteh Billiot

### Undergraduate Research Assistant

California Institute of Technology (CALTECH)

Pasadena, CA, USA  
June–September 2004

- Advisor: Professor Jack L Beauchamp
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## AWARDS, SERVICE & PROFESSIONAL ACTIVITIES

### National/International:

<u>Editorial Board Member</u> for Smart Molecules a Wiley Chemistry Journal	(Ongoing)
<u>Associate Editor</u> for Frontiers in Chemistry : Supramolecular Chemistry Area	(Ongoing)
<u>Advisory Board Member</u> for Molecular Systems Design & Engineering (MSDE) a Royal Society of Chemistry Journal	(Ongoing)
China Program of Global Experts National 1000 Plan Scholar	(2015–2020)
General Chemistry Course Awarded China National First Class Course Designation by MOE	(2020)
General Chemistry Course Awarded Tianjin First Class Course Designation by Tianjin Govt.	(2020)
Chemical Engineering Subject Chair for the Royal Society of Chemistry Twitter Conference	(2018)
Materials Subject Chair for the Royal Society of Chemistry Twitter Conference	(2019, 2020)
Distinguished Outstanding Young Alumnus Award: Texas A&M University CC	(2014)
Panelist for the Department of Defense (DoD) National Defense Science and Engineering Graduate (NDSEG) Fellowship evaluation	(2012)

### Tianjin University:

Top Ten Supervisor of Tianjin University	(2017)
Distinguished Youth Faculty Model for Teaching and Education of Tianjin University	(2017)
Teaching & Curriculum Committee	(2016–2020)
Laboratory Safety and Inspection Committee	(2017–2019; Chair 2019–2020)

### State (TEXAS):

Advisory Panelist in nanoscience and defense for the Tropical Texas Regional Center of Innovation and Commercialization	(2012–2015)
9 <sup>th</sup> Annual Texas A&M University System Pathways Symposium Judge	(2011)
Young Professionals of the Coastal Bend Corpus Christi Under 40 Honoree	(2015)

### Texas A&M University Corpus Christi:

Council of Principal Investigators and Research Administrators Elected Member	(Fall 2023–Ongoing)
Horizon Growth 2030 COS Strategic Plan Taskforce Member	(Fall 2023–Ongoing)
Chemistry Program Coordinator	(Fall 2021–Fall 2023)
College of Science Grade Appeal Committee	(Fall 2022–Ongoing)
TAMUCC Islander Beach Bash Volunteer	(Fall 2022)
Office of Student Success First-Gen Panel Discussion – Moderator	(Fall 2022)
TAMUCC Collegiate STEM Institute In-Person Chemistry Training Activity for Freshmen	(Summer 2022)
Asst. Professor in Chemistry (open) Faculty Search Committee Member	(Fall 2022– Spring 2023)
Asst. Professor in Inorganic Chemistry Faculty Search Committee Member	(Fall 2022– Spring 2023)
Asst. Professional Professor in Chemistry Faculty Search Committee Member	(Fall 2022– Spring 2023)
Laboratory Coordinator I Search Committee Chair	(Fall 2022– Spring 2023)
University Research Symposium Committee Member	(Spring 2022–Ongoing)
Chemistry Graduate Program Admissions Committee	(Fall 2021–Ongoing)
Chemistry Graduate Program Curriculum Committee	(Fall 2021–Ongoing)
Dean of College of Science Faculty Search Committee Member	(Fall 2021–Fall 2022)
Laboratory Coordinator I Search Committee Chair	(Fall 2021)
Laboratory Coordinator II Search Committee Chair	(Fall 2021–Spring 2022)
Asst. Professor in Inorganic Chemistry Faculty Search Committee Chair	(Fall 2021–Spring 2022)
Asst. Professional Professor in Chemistry Faculty Search Committee Chair	(Fall 2021–Spring 2022)
Honors Program Outstanding Faculty Award	(2014)
Panelist for Hispanics in STEM Careers Expo	(2012)
Panelist for Chemistry Club's Science Innovation in the Field of Chemistry	(2012)
Title V: STEM Outreach, Access, and Retention Renovation Award	(2012)
Purchasing Specialist Hiring Committee	(2012)
College of Science and Engineering Distinguished Speaker Committee	(2012–2015)

Coastal Bend Regional Science Fair Judge	(2011)
Curriculum Committee	(2011–2015)
Masters in Chemistry Graduate Program Development Committee	(2011–2015)
Environmental Health and Safety Committee	(2011–2015)
McNair Scholars Advisory Committee	(2011–2015)
Texas A&M University Corpus Christi Research Enhancement Grant Award	(2011–2012)
Biochemistry Faculty Search Committee	(2010 and 2011)
Corpus Christi Chemistry Club Faculty Advisor	(2010–Ongoing)
Howard Hughes Institute Research Fellow	(2004)
Welch Research Fellow	(2003–2004)
NSF Louis Stokes Alliances for Minority Participation Program Fellow	(2003)
Citgo Refining Math/Science Challenge scholarship recipient	(2000–2004)
University Honors scholarship recipient	(2000–2004)

### Peer Review of Scholarly Publications

89 Verified Reviews (98<sup>th</sup> Percentile) | 7 Verified Reviews in the Last 12 Months (92<sup>nd</sup> Percentile)

#### Number of Reviews by Journal

(19) Chemical Communications (RSC)	(16) Chem (Cell Press)
(11) Chemical Science (RSC)	(10) Journal of the American Chem. Soc. (ACS)
(4) Journal of Materials Chemistry C (RSC)	(3) RSC Advances (RSC)
(2) Chemistry-An Asian Journal (Wiley)	(1) ACS Applied Materials & Interfaces (ACS)
(1) Advanced Optical Materials (Wiley)	(1) Angewandte Chemie International Ed. (Wiley)
(1) Cellulose (Springer Nature)	(1) Chemical Engineering Journal (Elsevier)
(1) Chemistry-A European Journal (Wiley)	(1) Chemistry of Materials (ACS)
(1) ChemistryOpen (Wiley)	(1) Chemosensors (MDPI)
(1) Env. Science Water Research (RSC)	(1) Fibers and Polymers (Springer Nature)
(1) Frontiers in Chem. Sci. and Eng. (TJU)	(1) Journal of the Electrochemical Society (IOP)
(3) Langmuir (ACS)	(1) Materials Chemistry and Physics (Elsevier)
(1) Nature Chemistry (Nature Publishing)	(1) Nature Communications (Nature)
(1) Polymers and Polymer Composites (RSC)	(1) The Chemical Record (Wiley)
(1) Organic Letters	(1) One Earth
(1) ACS Omega	

## TEACHING

### Texas A&M University Corpus Christi:

CHEM 3411 Organic Chemistry I	22 course sections	1440 students total
CHEM 3412 Organic Chemistry II	20 course sections	1149 students total
CHEM 1411 General Chemistry I	4 course sections	392 students total
CHEM 4490 Molecular Spectroscopy	3 course sections	55 students total
CHEM 4696 and 5596 Directed Independent Study (DIS)	13 course sections	13 students total

#### DIS Course Titles:

Synthesis of Viologen Side-Chain Polymer-Based Smart Materials  
 Enthalpic and Entropic Contributions to the Free Energy of Template-Directed Micellization  
 Synthesis of Bipyridinium-based Smart Detergents for Programmed Self-Assembly  
 Template-Directed Micellization of Bipyridinium-based Electroactive Surfactants  
 Self-Assembly of Non-Covalently Functionalized Carbon Nanotubes  
 On the Synthesis of Charged Electroactive Surfactants  
 Safety Issues Related to Organic Chemistry  
 Synthesis of Dynamic Self-Assembling Electroactive Polymer Blends  
 Synthesis of Viologen Side-Chain Polymer-Based Smart Materials  
 Synthesis and Characterization of Polythioctic Acid Bipyridinium-Based Polymer Adsorbents

**Tianjin University:**

General Chemistry for Pharmaceutical Science	7 course sections	534 students total
Introduction to Pharmaceutical Science	5 course sections (single lecture)	489 students total
Modern Pharmaceutical Technology	2 course sections (single lecture)	114 students total

**PUBLICATIONS****RESEARCHER ID: C-1083-2008****ORCID ID: 0000-0003-0398-5063****TIMES CITED: 3667\*****H-INDEX:33\*****\*Reported by Google Scholar**

1. Abubakar, S.; Das, G.; Prakasam, T.; Jrad, A.; Gandara, F.; Varghese, S.; Delcios, T.; Olson, M. A.; Trabolsi, A. "Enhanced Removal of Ultratrace Levels of Gold from Wastewater Using Sulfur-Rich Covalent Organic Frameworks" *ACS Appl. Mater. Interfaces* **2024**, doi:10.1021/acsami.4c03685. (IF = 6.1)
2. Das, G.; Shinde, D. B.; Melepurakkal, A.; Shelke, M. V.; Garai, B.; Bazin, P.; Blal, A. A.; Benyettou, F.; Prakasam, T.; Abdul Halim, R.; Ibrahim, F. A.; Sharma, S. K.; Varghese, S.; Weston, J.; Jagannathan, R.; Addicoat, M. A.; Gandara, F.; Olson, M. A.; El Roz, M.; Trabolsi, A. "Synergistic Humidity-Responsive Mechanical Motion and Proton Conductivity in a Cationic Covalent Organic Framework" *Chem* **2024**, doi:10.1016/j.chempr.2024.04.018. (IF = 25.8)
3. Das, G.; Ibrahim, F. A.; Khalil, Z. A.; Bazin, P.; Chandra, F.; Abdul Halim R. G.; Prakasam, T.; Das, A. K.; Sharma, S. K.; Varghese, S.; Kirmizialtin, S.; Jagannathan, R.; Saleh, N.; Benyettou, F.; El Roz, M.; Addicoat, M.; **Olson, M. A.**; Rao, D. S. S.; Prasad, S. K.; Trabolsi, A. "Ionic Covalent Organic Framework as a Dual Functional Sensor for Temperature and Humidity" *Small* **2024**, 2311064. (IF = 13.3)
4. Das, G.; Prakasam, T.; Alkhatib, N.; AbdulHalim, R. G.; Chandra, F.; Sharma, S. K.; Garai, B.; Varghese, S.; Addicoat, M. A.; Ravaux, F.; Pasricha, R.; Jagannathan, R.; Saleh, N.; Kirmizialtin, S.; **Olson, M. A.**; Trabolsi, A. "Light-Driven Self-Assembly of Spiropyran-Functionalized Covalent Organic Framework" *Nature Commun.* **2023**, *14*, 3765. (IF = 16.6)
5. Khan, N. A.; Luo, M.; Zha, X.; Azad, C. S.; Lu, J.; Chen, J.; Fan, C.; Rahman, A. U.; **Olson, M. A.**; Jiang, Z.; Wang, D. "Water/Vapor Assisted Fabrication of Large-Area Superprotonic Conductive Covalent Organic Framework Membranes" *Small* **2023**, *19*, 2303131. (IF = 13.3)
6. Jrad, A.; **Olson, M. A.**; Trabolsi, A. "Molecular Design of Covalent Organic Frameworks for Seawater Desalination: A State-of-the-Art Review" *Chem* **2023**, *9*, 1413–1451. (IF = 25.8)
7. Ni, Y.; Fang, W.; **Olson, M. A.** "Fluorescent Molecular Rotors Based on Hinged Anthracene Carboxyimides" *Molecules* **2023**, *28*, 3217. (IF = 4.9)
8. Ni, Y.; Fang, W.; Baldrige, K. K.; **Olson, M. A.** "Reversible Photooxygenation of Anthracene Carboxyimide for Singlet Oxygen Formation: Mechanistic Study and Efficient Nitrite Detection" *Chem. Eur. J.* **2023**, *29*, e202300624. (IF = 4.7)
9. Jakharia, V.; **Olson, M. A.** "Induced-Fit-Like Uptake and Sensing of Perfluoroalkyl Compounds by an Emissive Metallacage" *Chem* **2023**, *1*, 8–10. (IF = 25.8).
10. **Olson, M. A.** "Catalytic Desymmetrization of the Mechanical Bond" *Chem Catalysis* **2022**, *11*, 2818–2820. (IF = 5.7)
11. Ni, Y.; Han, Y.; Kataev, E. A.; **Olson, M. A.** "Three-State Fluorescence Hydrochromism of a Fluorophore-Space-Receptor System with Variations in Relative Humidity" *Chem. Commun.* **2022**, *58*, 13463–13466. (IF = 6.3)

12. Das, G.; Garai, B. ; Prakasam, T. ; Benyettou, F.; Varghese, S.; Sharma, S. K.; Gandara, F.; Pasricha, R.; Baias, M.; Jagannathan, R.; Saleh, N.; Elhabiri, M.; **Olson, M. A.**; Trabolsi, A. “Fluorescence Turn On Amine Detection in a Cationic Covalent Organic Framework” *Nature Commun.* **2022**, *13*, 3904. (IF = 16.6)
13. Khan, N. A.; Zhang, R.; Wang, X.; Cao, L.; Azad, C. S.; Fan, C.; Yuan, J.; Long, M.; Wu, H.; **Olson, M. A.**; Jiang, Z. “Assembling Covalent Organic Framework Membranes via Phase Switching for Ultrafast Molecular Transport” *Nature Commun.* **2022**, *13*, 3169. (IF = 16.6)
14. Das, G.; Skorjanc, T.; Prakasam, T. ; Garai, B. ; Abubakar, S. ; Zalch, C. S.; Gandara, F.; Pasricha, R.; Sharma, S. K.; Varghese, S.; Jagannathan, R.; **Olson, M. A.**; Trabolsi, A. “Hydrophobicity Tuning in Isostructural Urchin-Shaped Covalent Organic Framework Nanoparticles by Pore Surface Engineering for Oil-Water Separation” *ACS Appl. Nano Mater.* **2022**, doi.org/10.1021/acsnm.2c00746. (IF = 6.1)
15. Dalvand, P.; Nono, K. N.; Shetty, D.; Benyettou, F.; Asfari, Z.; Platas-Iglesias, C.; **Olson, M. A.**; Trabolsi, A.; Elhabiri, M. “Viologen-Cucurbituril Host/Guest Chemistry – Redox Control of Dimerization versus Inclusion” *RSC Adv.* **2021**, *11*, 29543–29554. (IF = 3.1)
16. Nour, H. F.; El-Meagid, R. A.; Radwan, E.; Khattab, T. A.; **Olson, M. A.**; El Malah, T. “Adsorption Isotherm and Kinetic Studies for the Removal of Toxic Reactive Dyes from Contaminated Water onto a Viologen-Based Covalent Polymer” *New J. Chem.* **2021**, *45*, 18983–18993. (IF = 3.3)
17. Azad, C. S.; Shukla, P.; **Olson, M. A.**; Narula, A. K. “Phosphinic Acid/NaI Mediated Reductive Cyclization Approach for Accessing the L-1-Deoxynojirimycin Using a Two-Component Three-Centered (2C3C) Ugi Type Reaction” *Chin. J. Chem.* **2021**, *6*, 1503–1510. (IF = 6.0)
18. Liu, X.; Sun, R.; Li, Z.; Xiao, R.; Lv, P.; Sun, X.; **Olson, M. A.**; Gong, Y. “Luteolin Alleviates Non-Alcoholic Fatty Liver Disease in Rats via Restoration of Intestinal Mucosal Barrier Damage and Microbiota Imbalance involving Gut-Liver Axis” *Arch. Biochem. Biophys.* **2021**, *711*, 109019. (IF = 3.8)
19. Sun, Z.; Wang, Z.; Ni, Y.; Xi, L.; Roch, L. M.; Nour, H. F.; **Olson, M. A.** “Unexpected Three-State Hydrochromism of a Donor-Acceptor Self-Complex with Fluctuations in Relative Humidity” *Chem. Commun.* **2021**, *57*, 6554–6557. (IF = 6.3)
20. Sun, Z.; Ni, Y.; Prakasam, T.; Liu, W.; Wu, H.; Zhang, Z.; Di, H.; Baldrige, K. K.; Trabolsi, A.; **Olson, M. A.** “The Unusual Photochromic and Hydrochromic Switching Behavior of Cellulose-Embedded 1,8-Naphthalimide-Viologen Derivatives in the Solid-State” *Chem. Eur. J.* **2021**, *27*, 9360–9371. (IF = 4.7)
21. Garai, B.; Shetty, D.; Skorjanc, T.; Gandara, F.; Naleem, N.; Varghese, S.; Sharma, S. K.; Baias, M.; Jagannathan, R.; **Olson, M. A.**; Kirmizialtin, S.; Trabolsi, A. “Taming the Topology of Calix[4]arene-Based 2D-Covalent Organic Frameworks: Interpenetrated vs Noninterpenetrated Frameworks and their Selective Removal of Cationic Dyes” *J. Am. Chem. Soc.* **2021**, *143*, 3407–3415. (IF = 13.9)
22. El Malah, T.; Nour, H. F.; Radwan, E. K.; Mageid, R. E. A.; Khattab, T. A.; **Olson, M. A.** “A Bipyridinium-Based Polyhydrazone Adsorbent that Exhibits Ultrahigh Adsorption Capacity for the Anionic Azo Dye, Direct Blue 71” *Chem. Eng. J.* **2021**, *409*, 128195. (IF = 13.3)
23. Nour, H. F.; El Malah, T.; Radwan, E. K.; Mageid, R. E. A.; Khattab, T. A.; **Olson, M. A.** “Main-Chain Donor-Acceptor Polyhydrazone Mediated Adsorption of an Anionic Dye from Contaminated Water” *React. Funct. Polym.* **2021**, *158*, 104795. (IF = 4.0)
24. Shetty, D.; Jahovic, I.; Skorjanc, T.; Erkal, T. S.; Ali, L.; Raya, J.; Asfari, Z.; **Olson, M. A.**; Kirmizialtin, S.; Yazaydin, A. O.; Trabolsi, A. “Rapid and Efficient Removal of Perfluorooctanoic Acid from Water with Fluorine-Rich Calixarene-Based Porous Polymers” *ACS Appl. Mater. Interfaces* **2020**, *12*, 43160–43166. (IF = 9.2)

25. Khan, N. A.; Zhang, R.; Wu, H.; Shen, J.; Yuan, J.; Fan, C.; Cao, L.; **Olson, M. A.**; Jiang, Z. "Solid-Vapor Interface Engineered Covalent Organic Framework Membranes for Molecular Separation" *J. Am. Chem. Soc.* **2020**, *142*, 13450–13458. (IF = 13.9)
26. Khan, N. A.; Yuan, J.; Wu, H.; Huang, T.; You, X.; Rahman, A. U.; Azad, C. S.; **Olson, M. A.**; Jiang, Z. "Covalent Organic Framework Nanosheets as Reactive Fillers to Fabricate Free-Standing Polyamide Membranes for Efficient Desalination" *ACS Appl. Mater. Interfaces* **2020**, *12*, 27777–27785. (IF = 9.2)
27. Sun, Z.; Xi, L.; Zheng, K.; Zhang, Z.; Baldrige, K. K.; **Olson, M. A.** "Classical and Non-Classical Melatonin Receptor Agonist-Directed Micellization of Bipyridinium-Based Supramolecular Amphiphiles in Water" *Soft Matter*. **2020**, *16*, 4788–4799. (IF = 3.7)
28. Nour, H. F.; El Malah, T.; Khattab, T. A.; **Olson, M. A.** "Template-Assisted Hydrogelation of a Dynamic Covalent Polyviologen-Based Supramolecular Architecture via Donor-Acceptor Interactions" *Mater. Today Chem.* **2020**, *17*, 100289. (IF = 8.3)
29. Zheng, K.; He, C.; Nour, H. F.; Zhang, Z.; Yuan, T.; Traboulsi, H.; Mazher, J.; Trabolsi, A.; Fang, L.; **Olson, M. A.** "Augmented Polyhydrazone Formation in Water by Template-Assisted Polymerization using Dual-Purpose Supramolecular Templates" *Polym. Chem.* **2020**, *11*, 1806–1819. (IF = 5.6)
30. Skorjanc, T.; Shetty, D.; Gandara, F.; Ali, L.; Raya, J.; Das, G.; **Olson, M. A.**; Trabolsi, A. "Remarkably Efficient Removal of Toxic Bromate from Drinking Water with a Porphyrin-Viologen Covalent Organic Framework" *Chem. Sci.* **2020**, *11*, 845–850. (IF = 9.8)
31. Das, G.; Prakasam, T.; Addicoat, M. A.; Sharma, S. K.; Ravaux, F.; Mathew, R.; Baias, M.; Jagannathan, R.; **Olson, M. A.**; Trabolsi, A. "Azobenzene-Equipped Covalent Organic Framework: Light Operated Reservoir" *J. Am. Chem. Soc.* **2019**, *141*, 19078–19087. (IF = 13.9)
32. Ni, Y.; Sun, Z.; Wang, Y.; Nour, H. F.; Sue, A. C.-H.; Finney, N. S.; Baldrige, K. K.; **Olson, M. A.**, "Versatile Hydrochromic Fluorescent Materials Based on a 1,8-Naphthalimide Integrated Fluorophore-Receptor System" *J. Mater. Chem. C* **2019**, *7*, 7399–7410. (IF = 7.4)
33. Zhang, Z.; Liu, Q.; Zun, Z.; Phillips, B. K.; Wang, Z.; Al-Hashimi, M.; Fang, L.; **Olson, M. A.**, "Poly-Lipoic Ester-Based Coacervates for the Efficient Removal of Organic Pollutants from Water and Increased Point-of-Use Versatility" *Chem. Mater.* **2019**, *31*, 4405–4417. (IF = 9.8)
34. Shetty, D.; Skorjanc, T.; **Olson, M. A.**; Trabolsi, "Self-assembly of Stimuli-Responsive Imine-linked Calix[4]arene Nanocapsules for Targeted Camptothecin Delivery" *Chem. Commun.*, **2019**, *55*, 8876–8879. (IF = 6.3)
35. Das, G.; Nagaraja, S.; Sridurai, V.; Shinde, D. B.; Addicoat, M.; Prakasam, T.; Gandara, F.; Ravaux, F.; Sharma, S. K.; Nair, G. G.; Lai, Z.; Jagannathan, R.; **Olson, M. A.**; Trabolsi, A., "Redox-Triggered Buoyancy and Size Modulation of a Dynamic Covalent Gel" *Chem. Mater.* **2019**, *11*, 4148–4155. (IF = 9.8)
36. Skorjanc, T.; Shetty, D.; **Olson, M. A.**; Trabolsi, A., "Design Strategies and Redox-Dependent Applications of Insoluble Viologen-Based Covalent Organic Polymers" *ACS Appl. Mater. & Interfaces*. **2019**, *7*, 6705–6716. (IF = 9.2)
37. Prakasam, T.; Devaraj, A.; Saha, R.; Lusi, M.; Brandel, J.; Esteban-Gomez, D.; Platas-Iglesias, C.; **Olson, M. A.**; Mukherjee, P.; Trabolsi, A., "Metal-Organic Self-Assembled Trefoil Knots for C-Br Bond Activation" *ACS Catal.* **2019**, *9*, 1907–1914. (IF = 13.1)
38. Das, G.; Benyettou, F.; Sharama, S. K.; Prakasam, T.; Gandara, F.; De la Pena-O'Shea, V. A.; Pasricha, R.; Jagannathan, R.; **Olson, M. A.**; Trabolsi, A., "Covalent Organic Nanosheets for Bioimaging" *Chem. Sci.* **2018**, *9*, 8382–8387. (IF = 9.8)

39. Xu, Y.; Yuan, T.; Nour, H. F.; Fang, L.; **Olson, M. A.**, "Bis-Bipyridinium Gemini Surfactant-Based Supramolecular Helical Fibers and Solid State Thermochromism" *Chem. Eur. J.* **2018**, *24*, 16553–16557. **Selected for Journal Cover, Selected as Very Important Paper (VIP)** (IF = 4.7)
40. Yuan, T.; Sun, Z.; Mu, A. U.; Zeng, M.; Kalin, A. J.; Cheng, Z.; **Olson, M. A.**; Fang, L., "Assembly and Chiral Memory Effect of Dynamic Macroscopic Supramolecular Helices" *Chem. Eur. J.* **2018**, *24*, 16558–16570. **Selected for Journal Cover** (IF = 4.7)
41. Wang, Z.; Cui, H.; Sun, Z.; Roch, L. M.; Goldner, A. N.; Nour, H. F.; Sue, A. C.-H.; Baldrige, K. K.; **Olson, M. A.** "Melatonin-Directed Micellization: A Case for Tryptophan Metabolites and their Classical Bioisosteres as Templates for the Self-Assembly of Bipyridinium-Based Supramolecular Amphiphiles in Water" *Soft Matter*. **2018**, *14*, 2893–2905. (IF = 3.7)
42. Guo, M.; Wang, X.; Zhan, C.; Demay-Drouhard, P.; Li, W.; Du, K.; **Olson, M. A.**; Zuilhof, H.; Sue, A. C.-H. "Rim-Differentiated C5-Symmetric Tiara-Pillar[5]arenes" *J. Am. Chem. Soc.* **2018**, *140*, 74–77. (IF = 13.9)
43. Yuan, T.; Xu, Y.; Zhu, C.; Jiang, Z.; Sue, H.-J.; Fang, L.; **Olson, M. A.** "Tunable Thermochromism of Multifunctional Charge-Transfer-Based Supramolecular Materials Assembled in Water" *Chem. Mater.* **2017**, *29*, 9937–9945. **Selected for Journal Front Cover** (IF = 9.8)
44. Wang, Z.; Nour, H. F.; Roch, L. M.; Guo, M.; Li, W.; Baldrige, K. K.; Sue, A. C.-H.; **Olson, M. A.** "[3+3] Cyclocondensation of Disubstituted Biphenyl Dialdehydes: Access to Inherently Luminescent and Optically Active Hexa-substituted C3-Symmetric and Asymmetric Trianglimine Macrocycles" *J. Org. Chem.* **2017**, *82*, 2472–2480. (IF = 4.4)
45. Wen, H.; Li, W.; Chen, J.; He, G.; Li, L.; **Olson, M. A.**; Sue, A. C.-H., Stoddart, J. F., Xuefeng, G. "Complex Formation Dynamics in a Single-Molecule Electronic Device" *Science Advances*. **2016**, *11*, e1601113. (IF = 14.4)
46. Yuan, T.; Vazquez, M.; Goldner, A. N.; Xu, Y.; Contrucci, R.; Firestone, M. A.; **Olson, M. A.**; Fang, L. "Versatile Thermochromic Supramolecular Materials Based on Competing Charge Transfer Interactions" *Adv. Funct. Mater.* **2016**, *47*, 8604–8612. **Selected for Journal Inside Cover. Top 10 for the month of November.** (IF = 18.9)
47. **Olson, M. A.**; Messina, M. S; Thompson, J. R.; Dawson, T. J.; Goldner, A. N.; Gaspar, D. K.; Vazquez, M.; Lehrman, J. A.; Sue, A. C.-H. "Reversible Morphological Changes of Assembled Supramolecular Amphiphiles Triggered by pH-Modulated Host-Guest Interactions" *Org. Biomol. Chem.* **2016**, *14*, 5714–5720. **Part of the New Talent Themed Collection** (IF = 3.9)
48. **Olson, M. A.** "Metal-Organic Frameworks: Shuttling in the Solid State" *Nature Chem.* **2015**, *7*, 470–471. **Invited News and Views Article** (IF = 24.4)
49. **Olson, M. A.**; Thompson, J. R.; Dawson, T. J.; Hernandez, C. M.; Messina, M. S.; O'Neal, T. "Template-directed Self-Assembly by Way of Molecular Recognition at the Micellar-Solvent Interface: Modulation of the Critical Micelle Concentration" *Org. Biomol. Chem.* **2013**, *11*, 6483–6492. **Selected for Journal Front Cover.** (IF = 3.9)
50. Fahrenbach, A. C.; Hartlieb, K. J.; Sue, C. -H.; Bruns, C. J.; Barin, G.; Basu, S.; **Olson, M. A.**; Botros, Y. Y.; Bagabas, A.; Khadry, N. H.; Stoddart, J. F. "Rapid Thermally Assisted Donor-Acceptor Catenation" *Chem. Commun.* **2012**, *48*, 9141–9143. (IF = 6.3)
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55. Dey, S. K.; Beuerle, F.; **Olson, M. A.**; Stoddart, J. F. "Arranging Pseudorotaxanes Octahedrally Around [60]Fullerene" *Chem. Commun.* **2011**, *47*, 1425–1427. (IF = 6.3)
56. **Olson, M. A.**; Wang, C.; Fang, L.; Benítez, D.; Tkatchouk, E.; Basu, S.; Basuray, A. N.; Zhang, D.; Zhu, D.; Goddard, W. A.; Stoddart, J. F. "The Dynamic Stereochemistry of a Bistable Donor-Acceptor [2]Catenane" *Proc. Natl. Acad. Sci. USA* **2010**, *107*, 13991–13996. (IF = 11.2)
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58. **Olson, M. A.**; Botros, Y. Y.; Stoddart, J. F. "Mechanostereochemistry" *Pure Appl. Chem.* **2010**, *82*, 1569–1574. (IF = 2.5)
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60. **Olson, M. A.**; Coskun, A.; Fang, L.; Basuray, A.; Stoddart, J. F. "Polycatenation Under Thermodynamic Control" *Angew. Chem. Int. Ed.* **2010**, *49*, 3151–3156. (IF = 15.3)
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62. Fang, L.; **Olson, M. A.**; Stoddart, J. F. "Mechanically Bonded Macromolecules" *Chem. Soc. Rev.* **2010**, *39*, 17–29. **Selected for Journal Front Cover.** (IF = 54.6)
63. **Olson, M. A.**; Braunschweig, A. B.; Fang, L.; Ikeda, T.; Klajn, R.; Trabolsi, A.; Mirkin, C.; Wesson, P.; Benitez, D.; Grzybowski, B. A.; Stoddart, J. F. "A Bistable Poly[2]catenane Forms Nanosuperstructures" *Angew. Chem. Int. Ed.* **2009**, *48*, 1792–1797. (IF = 15.3)
64. **Olson, M. A.**; Coskun, A.; Klajn, R.; Fang, L.; Dey, S. K.; Browne, K.; Grzybowski, B. A.; Stoddart, J. F. "Assembly of Polygonal Nanoparticle Clusters Directed By Reversible Noncovalent Bonding Interactions" *Nano Lett.* **2009**, *9*, 3185–3190. (IF = 11.2)
65. **Olson, M. A.**; Braunschweig, A.; Ikeda, T.; Fang, L.; Trabolsi, A.; Slawin, A. M. Z.; Stoddart, J. F. "Thermodynamic Forecasting of Mechanically Interlocked Switches" *Org. Biomol. Chem.* **2009**, *7*, 4391–4405. **Highlighted as HOT ARTICLE: OBC website. Selected for Journal Front Cover.** (IF = 3.9)
66. Klajn, R.; **Olson, M. A.**; Fang, L.; Coskun, A.; Wesson, P. J.; Trabolsi, A.; Stoddart, J. F.; Grzybowski, B. A. "On-demand Capture and Release of Metal Nanoparticles Using a Functional Polymer" *Nature Chem.* **2009**, *1*, 733–738. (IF = 24.4)



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68. Klajn, R.; Fang, L.; Coskun, A.; **Olson, M. A.**; Grzybowski, B. A.; Stoddart, J. F. "Metal Nanoparticles Functionalized with Molecular and Supramolecular Switches" *J. Am. Chem. Soc.* **2009**, *131*, 4233–4235. (IF = 13.9)
69. Braunschweig, A. B.; Dichtel, W. R.; Miljanić, O. Š.; **Olson, M. A.**; Spruell, J. M.; Khan, S. I.; Heath, J. R.; Stoddart, J. F. "Modular Synthesis and Dynamics of a Variety of Donor-Acceptor Interlocked Compounds Prepared by a Click Chemistry Approach" *Chem. Asian J.* **2007**, *2*, 634–647. (IF = 4.6)
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## ACADEMIC LECTURES / PRESENTATIONS

1. "Template-Directed Micellization and Hydrochromism of Amphiphilic Charge Transfer Salts" **Center for Photochemical Sciences Seminar Series, Bowling Green State University (BGSU), Bowling Green, Ohio**, April 2024. INVITED
2. "Harnessing the Unforeseen Hydrochromism of Pyridinium-Based Charge Transfer Salts and Fluorophores" **Chemistry Department Seminar Series, University of North Texas (UNT), Denton, Texas**, March 2024. INVITED
3. "Exploiting the Unexpected Hydrochromism of Pyridinium-Based Charge Transfer Salts and Fluorophores" **Chemistry Department Seminar Series, University of Texas (UT) Austin, Austin, Texas**, Nov. 2023. INVITED
4. "Harnessing the Unexpected Hydrochromism of Pyridinium-Based Charge Transfer Salts and Fluorophores" **Chemistry Department Seminar Series, University of Houston, Houston, Texas**, Sept. 2023. INVITED
5. "Traversing the Unexpected Hydrochromism of Charge Transfer Salts with Fluctuations in Relative Humidity" **2023 International Symposium on Macrocyclic and Supramolecular Chemistry (ISMCS), Reykjavik, Iceland**, June 2023. INVITED
6. "Traversing the Unexpected Hydrochromism of Pyridinium-Based Charge Transfer Salts and Fluorophores with Fluctuations in Relative Humidity" **Chemistry Department Guest Lecture Weekly Seminar, University of Texas (UT) at Dallas, Dallas, Texas**, Nov. 2022. INVITED
7. "Stimuli-Responsive Optical Properties of Non-Stoichiometric Hydrates and Anhydrates of Donor-Acceptor Charge Transfer Salts" **7<sup>th</sup> International Conference on Molecular Sensors & Logic Gates, Dublin, Ireland**, July 2022. INVITED KEYNOTE LECTURE
8. "Hydrochromic Pyridinium-Based Soft Matter and their Unusual Competing Charge Transfer Interactions" **Organic Chemistry Seminar Series, Louisiana State University (LSU), Baton Rouge, Louisiana**, April. 2022. INVITED
9. "Charge Transfer-Dependent Applications of Pyridinium-Based Soft Matter Assembled in Water" **Chemistry Seminar, University of Virginia College at Wise, Wise, Virginia**, March. 2021. INVITED
10. "Charge Transfer-Dependent Applications of Pyridinium-Based Soft Matter Assembled in Water" **Chemistry Seminar Series, King Abdullah University of Science and Technology (KAUST), Thuwal, Kingdom of Saudi Arabia**, Sept. 2020. INVITED
11. "Supramolecular Soft Matter Material Science – Developing Supramolecular Functional Materials" **Stoddart Alumni Symposium, Northwestern University, Evanston, Illinois**, Aug. 2020. INVITED
12. "Exploring the Optical Properties of Non-Stoichiometric Hydrates and Anhydrates of Donor-Acceptor Charge Transfer Salts" **Singapore International Chemistry Conference (SICC2018), National University of Singapore, Singapore**, Dec. 2018. INVITED

13. “Exploring the Optical Properties of Non-Stoichiometric Hydrates and Anhydrates of Donor-Acceptor Charge Transfer Salts” **6<sup>th</sup> Thailand International Nanotechnology Conference (ThaiNano 2018), Bangkok, Thailand, Dec. 2018. INVITED**
14. “Exploring the Optical Properties of Non-Stoichiometric Hydrates and Anhydrates of Donor-Acceptor Charge Transfer Salts” **Global Young Talents Forum, Beijing University of Chemical Technology (BUCT), Beijing, China, Oct. 2018. INVITED**
15. “Exploring the Optical Properties of Non-Stoichiometric Hydrates and Anhydrates of Donor-Acceptor Charge Transfer Salts” **Conference on Promoting New Chemistry, Beijing Institute of Technology (BIT), Beijing, China, Sept. 2018. INVITED**
16. Olson, M. A. “Exploiting Tunable Hydrochromism of Multifunctional Charge Transfer-Based Supramolecular Materials Assembled in Water” **International Conference on Molecular Sensors and Molecular Logic Gates (MSMLG), Dalian, China, June 2018. INVITED**
17. “Thermochromic Supramolecular Materials Based on Competing Charge Transfer Interactions” **OCDS Colloquium Seminar Series, University of California Los Angeles (UCLA), Los Angeles, California, Apr. 2018. INVITED**
18. “Thermochromic Supramolecular Materials Based on Competing Charge Transfer Interactions” **EEWS & Department of Chemistry Seminar Series, Korea Advanced Institute of Science and Technology (KAIST), Mar. 2018. INVITED**
19. “Thermochromic Supramolecular Materials Based on Competing Charge Transfer Interactions” **Workshop on Supramolecular Chemistry & Materials, Hong Kong Baptist University, Hong Kong, China, Dec. 2017. INVITED**
20. “Thermochromic Supramolecular Materials Based on Competing Charge Transfer Interactions” **The 7<sup>th</sup> International Conference on Nanoscience and Nanotechnology: ChinaNANO 2017, Beijing, China, Aug. 2017.**
21. “Thermochromic Supramolecular Materials Based on Competing Charge Transfer Interactions” **14<sup>th</sup> International Conference on Calixarenes: Calix2017, Nankai University, Tianjin, China, Aug. 2017. INVITED**
22. “Chemistry While You Were Sleeping” **A Golden Age for Chemistry, University of Nottingham, Nottingham, United Kingdom, June 2017. INVITED**
23. “Molecular Templatation and Self-Assembly in Water: Developing Soft Matter-Based Functional Materials” **International Symposium of Frontier Sciences on New Drug Discovery, Wuhan University, Wuhan, China, Oct. 2016. INVITED**
24. “Molecular Templatation and Self-Assembly in Water: Developing Soft Matter-Based Functional Materials” **WuXi AppTec Pharmaceutical Company, Tianjin, China, Sept. 2016. INVITED**
25. “Molecular Templatation and Self-Assembly in Water: Developing Soft Matter-Based Functional Materials” **International Conference on Molecular Sensors and Molecular Logic Gates (MSMLG), Bath, United Kingdom, July 2016.**
26. “Molecular Templatation of Soft Matter in Water” **American Chemical Society (ACS) Local Meeting, Texas A&M University Kingsville, Kingsville, Texas, Oct. 2014. INVITED**
27. “Molecular Templatation of Soft Matter in Water: from the Micellar Cradle to the Crystalline Grave” **Los Alamos and Sandia National Laboratories’ Center for Integrated Nanotechnologies User Meeting, Santa Fe, New Mexico, Sept. 2014. INVITED**

28. "Template-Directed Self-Assembly at the Micellar-Solvent Interface" **Organic and Diversity Seminar Series, Texas A&M University College Station, College Station, Texas**, Feb. 2014. INVITED
29. "Molecular Templatation in Soft Materials Chemistry: Interactions at the Mechanical Bond, Polymer, Nanoparticle, and Micellar-Solvent Interface" **Chemistry Department Organic Division Guest Lecture Weekly Seminar, University of Connecticut, Storrs, Connecticut**, Feb. 2014. INVITED
30. "Molecular Templatation at the Micellar-Solvent Interface" **Chemistry Department Guest Lecture Weekly Seminar, University of Texas at Dallas, Dallas, Texas**, Jan. 2014. INVITED
31. "Molecular Templatation in Soft Materials Chemistry: Interactions at the Mechanical Bond, Polymer, Nanoparticle, and Micellar-Solvent Interface" **Symposium on Directions in Modern Pharmaceutical Science, Tianjin University, Tianjin, China**, Dec. 2013. INVITED
32. "Molecular Templatation in Soft Materials Chemistry: Interactions at the Mechanical Bond, Polymer, Nanoparticle, and Micellar-Solvent Interface" **QianQing 1000 Talent Symposium, Beijing, China**, Sept. 2013. INVITED
33. "Targeting Minorities in STEM Fields at a Hispanic Serving Institution: I am Living Proof!" **National Council of University Research Administrators Region V Spring Meeting. Oklahoma City, Oklahoma**, April 2013. INVITED
34. "Before I was One of Them, I was One of You: Memoirs of a Chemistry Lover" **NSF REU-Life Sciences Symposium. Texas A&M University Corpus Christi, Corpus Christi, Texas**, March 2013. INVITED
35. "The Materials Chemistry of the Mechanical Bond: From Supramolecular Complexity to Topological Simplicity Part 1" **Harte Research Institute Seminar Series. Texas A&M University, Corpus Christi, Texas**, November 2012.
36. "Reversible Docking and Template-Directed Detergency Activation at the Micelle-Solvent Interface" **Northwestern University Center for the Chemistry of Integrated Systems Research Symposium. Northwestern University, Evanston, Illinois**, May 2012.
37. "From A&M to the Shoulders of Giants: Consequences of My Addictive Chemical Romance" **South Texas Chapter of Sigma Xi 11<sup>th</sup> Annual Distinguished Seminar. Corpus Christi, Texas**, October 2011. INVITED
38. **Olson, M. A.**; Klajn, R.; Fang, L.; Coskun, A.; Grzybowski, B. A.; Stoddart, J. F. "Dynamic Hook-and-Eye Nanoparticulate Templatation." **International Symposium on Macrocyclic & Supramolecular Chemistry (ISMCS), Maastricht, Netherlands**, June 2009.
39. **Olson, M. A.**; Benitez, D.; Braunschweig, A. B.; Ikeda, T.; Stoddart, J. F. "Bistable side-chain poly[2]catnanes: A mechanically switchable polymer." **236<sup>th</sup> ACS National Meeting, Philadelphia, Pennsylvania**, August 2008.
40. **Olson, M. A.**; Benitez, D.; Braunschweig, A. B.; Ikeda, T.; Stoddart, J. F. "Bistable side-chain poly-[2]catnanes: A mechanically switchable polymer." **Opportunities for Nanostructured Polymeric Materials for Device Fabrication: ACS Polymer Division, Lake Tahoe, Nevada**, November 2007.
41. **Olson, M. A.**; Kang, S.; Mendes, P.; Braunschweig, A.; Aprahamian, I.; Saha, S.; Leung, K.; Stoddart, J. F. "Self-assembly of Quantum Dot Architectures: Towards Molecular Spin Transfer Channels." **Center for Nanoscience Innovation for Defense PI Meeting. Santa Monica, California**, June 2006.
42. **Olson, M. A.**; Hodyss, R.; Beauchamp, J. "Discrimination of Enantiomeric Forms of Amino Alcohols using Fiber Optic Fluorescence Spectroscopy." **California Institute of Technology SURF seminar day. CALTECH, Pasadena, California**, August 2004.

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## APPEARANCES IN SCIENTIFIC AND NONSCIENTIFIC MEDIA

1. Podcast Interview: "Mark Olson – Molecular Tectonics" **How Science Happens**,

<https://anchor.fm/howscience/episodes/Mark-Olson---Molecular-Tectonics-eplp22>, Jan. 2021

2. Magazine Article: “Foreign High-Level Talent: Let the Students Taste the Sweetness at the First Bite (translated from Chinese)” **Quxian Talents Seeking**, Issue 334, July 2019
  3. Magazine Article: “Career Ladder: Mark Olson Nonconventional Career Track Leads Supramolecular Chemist from Texas to China” **American Chemical Society Chemical & Engineering News**, Volume 95, Issue 35, Aug. 2017.
  4. Radio Interview: “Expatriate Hour: Dr. Mark Olson” **RadioBH FM 87.8 Tianjin Binhai Radio**, Nov. 2016.
  5. TV News Appearance: “Local Professors Discredit Raspberry Ketone Diet Supplements” **KRIS TV Local News, Corpus Christi, Texas** Jan. 2013.
  6. TV News Appearance: “Shocking Levels of Arsenic Found in Rice” **KRIS TV Local News, Corpus Christi, Texas** Sept. 2012.
  7. Online Recognition: “Dr. Mark Olson An Outstanding Islander: Chemistry in the Making” **TAMUCC Website**, [www.tamucc.edu/profiles/oct12/profile\\_olson.html](http://www.tamucc.edu/profiles/oct12/profile_olson.html), Oct. 2012.
  8. Magazine Article: “Chemistry in the Making: Dr. Mark Olson Creates First Fully-Synthetic Materials Chemistry Laboratory on Campus” **The Islander Magazine**, Oct. 2012.
  9. Magazine Article: “Scientists Use Social Networking to Study Spill” **American Chemical Society Chemical & Engineering News**, Volume 88, Issue 24, June 2010.
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## FUNDING/GRANTS FUNDED

1. Billiot, E. J. (Principal); **Olson, M. A.** (Co-Principal); Billiot, F. H. (Co-Principal); Morris, K. (Co-Principal), “Collaborative Research RUI: Examination of the Effect of Templating Agents on the Size, Shape, and Chiral Recognition of Bifurcated Amino Acid-Based Amphiphilic Molecular Assemblies” Sponsored by the National Science Foundation, \$374,888.00. (Sept. 2022–August 2025)
2. **Olson, M. A.** “Benchtop Nuclear Magnetic Resonance Spectrometer for Organic Teaching Lab” Sponsored by TAMUCC Collegiate STEM Institute Title V Component 3 Award, \$36,000. (Fall 2022)
3. **Olson, M. A.** “Self-Sorted Helical Handedness of a Versatile Class of Supramolecular Self-Assemblies and Polymers for Applications in Membrane Dialysis Fabrication and Chiral Separations” Sponsored by the National Science Foundation of China (NSFC), 400,000 RMB (\$58,681.14 USD). (2020–2022)
4. Siegel, J. (Principal); Stoddart, J. F. (Co-Principal); Baldrige, K. K. (Co-Principal); **Olson, M. A.** (Co-Principal); Huang, J. (Co-Principal); Du, Y. (Co-Principal) et. al., “The Fundamental and Frontier Studies of the New Topology of Molecular Functional Carbon Materials” Sponsored by the National Basic Research Program (973 Program of China, 25,000,000.00 RMB (\$4,034,926.50 USD). (2015–2019)
5. **Olson, M. A.** (Principal) National 1000 Talent Program Award, State Administration of Foreign Experts Affairs (SAFEA), People’s Republic of China, 4,000,000 RMB (\$547,784.20 USD). (2015–2021)
6. **Olson, M. A.** “Adsorption and Separation of Organic Pollutants in Water by New Polymer-Based Nanomolecular Materials” Sponsored by TJUs Independent Innovation Fund, 30,000 RMB (\$4,285 USD). (2017–2018)
7. Du, Y.; **Olson, M. A.** “The Development of Functionalized Self-Assembling Nanomaterials” Sponsored by TJUs Independent Innovation Fund, 30,000 RMB (\$4,285 USD). (2017–2018)

8. **Olson, M. A.** “National Young 1000 Talent Plan Award” China State Administration of Foreign Expert Affairs (SAFEA), 2,000,000 RMB (\$285,714 USD). (2015–2020)
9. **Olson, M. A.** (Principal) “Ductless Bench Top Fume Hoods for Organic Chemistry Teaching Lab” Sponsored by TAMUCC SOAR Title V: STEM Outreach, Access, and Retention Renovation Award, \$17,213.00. (July 2012)
10. **Olson, M. A.** (Principal), “Template-Directed Detergency Activation and Deactivation in Micellar Binary Blends: A Pathway to the NSF Early Career Grant” Sponsored by TAMUCC Office of Research and Scholarly Activity, Texas Research Development Fund, \$25,000.00. (June 2012–August 2013)
11. Billiot, F. H. (Principal); Larkin, P. D. (Co-Principal); Billiot, E. J. (Co-Principal); Causgrove, T. P. (Co-Principal); **Olson, M. A.** (Co-Principal); Silliman, J. E. (Co-Principal), “Chemistry Department Research Training Grant” Sponsored by the Welch Foundation, \$35,000.00. (June 2012–May 2013)
12. Billiot, F. H. (Principal); Larkin, P. D. (Co-Principal); Billiot, E. J. (Co-Principal); Causgrove, T. P. (Co-Principal); **Olson, M. A.** (Co-Principal); Silliman, J. E. (Co-Principal), “Chemistry Department Research Training Grant” Sponsored by the Welch Foundation, \$25,000.00. (June 2011–May 2012)
13. **Olson, M. A.** (Principal), “Molecular Architectonic Tuning at the Carbon Nanotube Solvent Interface” Sponsored by TAMUCC Office of Research and Scholarly Activity, Research Enhancement Grant, \$7,881.00. (September 2011–August 2012)

## RESEARCH PERSONNEL / ASSISTANTS MENTORED (TAMUCC/TJU)

The following research personnel (non-graduate students) have been/are independently supervised by me:

<u>Names</u>	<u>(Dates)</u>	<u>Award/Financial Support</u>	<u>Degree/Position</u>
1. <b>Mark A Tuck</b>	(2010–2011)	Welch Foundation Research Fellow	BS Chemistry
2. <b>Jonathan R. Thompson</b>	(2011–2012)	Welch Foundation Research Fellow	Post Baccalaureate
3. <b>Trenton J. Dawson</b>	(2011–2013)	Welch Foundation Research Fellow	BS Chemistry
4. <b>Marco Messina</b>	(2011–2014)	NSF LSAMP Research Fellow	BS Chemistry
5. <b>Chris Hernandez</b>	(2011–2013)	NSF LSAMP Research Fellow	BS Chemistry
6. <b>Brenda De Leon</b>	(2012)	Directed Independent Study	BS Chemistry
7. <b>Edward Garza</b>	(2012)	Visiting High School Student	High School Student
8. <b>Josh Wondra</b>	(2012)	Welch Foundation Research Fellow	BS Biology
9. <b>Shaun P. McKeown</b>	(2012–2013)	Welch Foundation Research Fellow	BS Biomedical Science
10. <b>Ryan P. Oakley</b>	(2013)	Visiting Scholar	Post Baccalaureate
11. <b>Alyssa Gaynor</b>	(2013–2014)	Volunteer	BS Chemistry
12. <b>Amanda Goldner</b>	(2013–2015)	Welch Foundation Research Fellow	BS Biomedical Science
13. <b>Daryl Gaspar</b>	(2013–2015)	NSF LSAMP Research Fellow	BS Biomedical Science
14. <b>Mariela Vazquez</b>	(2013–2015)	NSF LSAMP Research Fellow	BS Chemistry
15. <b>Mikaela Nunez</b>	(2013–2015)	NSF LSAMP Research Fellow	BS Chemistry
16. <b>Dr. Hany Nour</b>	(2016–2018)	TJU/1000 Talent Foreign Expert Fund	Postdoctoral Scholar
17. <b>Dr. Imran Khan</b>	(2017–2018)	TJU/1000 Talent Foreign Expert Fund	Postdoctoral Scholar
18. <b>Troy Olson</b>	(2017–2018)	TJU/1000 Talent Foreign Expert Fund	Visiting Scholar
19. <b>Lei Kunhua</b>	(2017–2018)	TJU/1000 Talent Foreign Expert Fund	Visiting Scholar
20. <b>Dr. Chandra Sourabh</b>	(2017–2021)	TJU/1000 Talent Foreign Expert Fund	Postdoctoral Scholar
21. <b>Matthew McCarn</b>	(2021–2023)	Welch Foundation Research Fellow	BS Chemistry
22. <b>Boone Stauber</b>	(2021–2023)	Welch Foundation Research Fellow	BS Biology
23. <b>Sarah Yniguez</b>	(2021–Ongoing)	Welch Foundation Research Fellow	BS Chemistry
24. <b>Noah Millican</b>	(2021–2023)		BS Chemistry
25. <b>Reyna Barajas</b>	(2022–2023)	NSF LSAMP Research Fellow	BS Chemistry
26. <b>Leah Marr-Lyon</b>	(2022–Ongoing)	Welch Foundation Research Fellow	BS Chemistry

27. <b>Raymond Guidry</b>	(2022–2023)	BS Chemistry
28. <b>Charles Jackson</b>	(2022–Ongoing) Welch Foundation Research Fellow	BS Chemistry
29. <b>Conner Duncan</b>	(2022–Ongoing) Welch Foundation Research Fellow	BS Chemistry
30. <b>Emily Hall</b>	(2023–Ongoing) Welch Foundation Research Fellow	BS Chemistry
31. <b>Muhammad Jifi</b>	(2023–2024)	BS Chemistry
32. <b>Dante Morland</b>	(2023–Ongoing) Welch Foundation Research Fellow	BS Chemistry
33. <b>William Picotte</b>	(2024–Ongoing)	BS Chemistry
34. <b>Mazzy Barrientos</b>	(2024–Ongoing)	BS Chemistry

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## GRADUATE STUDENTS MENTORED AND ADVISORY COMMITTEE SERVICE (TAMUCC/TJU)

The following students have had me as a PI, Chair, or Thesis committee member of their graduate advisory committee:

<u>Names</u>	<u>(Dates)</u>	<u>Service</u>	<u>Degree Awarded</u>
1. <b>Hui Cui</b>	(2012–2014)	PI/Chair	MS Environmental Science
2. <b>Kevin Wolfe</b>	(2012–2015)	Member	PhD Marine Biology
3. <b>Bruce Allen Crow</b>	(2012–2015)	Member	MS Biology
4. <b>Zhenzhen Wang</b>	(2016–2018)	PI/Chair	PhD Applied Chemistry
5. <b>Zhimin Sun</b>	(2015–2021)	PI/Chair	MS/PhD/Applied Chemistry
6. <b>Yan Xu</b>	(2015–2018)	PI/Chair	MS Pharmacy
7. <b>Lihui Xi</b>	(2015–2019)	PI/Chair	MS Pharmacy
8. <b>Yanhai Ni</b>	(2016–2023)	PI/Chair	MS/PhD/Applied Chemistry
9. <b>Chang He</b>	(2016–2019)	PI/Chair	MS Pharmacy
10. <b>Zhao Zhang</b>	(2016–2019)	PI/Chair	MS Pharmacy
11. <b>Zhen Kai</b>	(2017–2020)	PI/Chair	MS Pharmacy
12. <b>Liu Qian</b>	(2017–2020)	PI/Chair	MS Pharmacy
13. <b>Li Jiamin</b>	(2017–2020)	PI/Chair	MS Pharmacy
14. <b>Miaomiao Tian</b>	(2018–2021)	PI/Chair	MS Pharmacy
15. <b>Shannelle Habikanova</b>	(2019–-----)	PI/Chair	PhD/Applied Chemistry
16. <b>Han Yishan</b>	(2019–2021)	PI/Chair	MS Pharmacy
17. <b>Di Haiting</b>	(2019–2021)	PI/Chair	MS Pharmacy
18. <b>Ha Tran</b>	(2021–2022)	PI/Chair	MS Chemistry
19. <b>Vandan Jakaria</b>	(2021–2023)	PI/Chair	MS Chemistry
20. <b>Alexis Burghoff</b>	(2021–2023)	CoChair	MS Chemistry
21. <b>Shayden Fritz</b>	(2022–2023)	Member	MS Chemistry
22. <b>Brett Lowry</b>	(2022–Ongoing)	Member	MS Chemistry
23. <b>Mohit Ch</b>	(2022– 2023)	PI/Chair	MS Chemistry
24. <b>Johnathon Sturgeon</b>	(2023–2024)	PI/Chair	MS Chemistry
25. <b>Arthur Nguyen</b>	(2023–2024)	PI/Chair	MS Chemistry
26. <b>Victoire Delattre</b>	(2023–Ongoing)	PI/Chair	MS Chemistry

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## RESEARCH INTERESTS SUMMARIZED BY KEY WORDS

SUPRAMOLECULAR CHEMISTRY, SOFT MATTER, POLYMERS, AND MATERIAL SCIENCE: molecular recognition processes • molecular switches • self-assembly processes • template-directed self-assembly • concept transfer from the life sciences into materials science • programmed detergency • polymer blends • electrostatics • interfacial molecular interactions • chemical sensors • molecular electronics • aerogels • thin film processing • thermochromics • 3D printing • hydrochromics • photochromics • switchable inks and dyes • molecular adsorbents

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