
M. Mustafa Cetin, PhD

Assistant Professor, Chemist, Scientist, and Technical Specialist

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Rate my professors: <http://www.ratemyprofessors.com/ShowRatings.jsp?tid=2135072>

Google Scholar:

https://scholar.google.com/citations?hl=en&user=N5QBYFkAAAAJ&view_op=list_works



Summary of Expertise

- **PhD & MSc in synthetic organic chemistry** with specialization in **organic synthesis, polymer chemistry, supramolecular chemistry, catalysis, photo-redox chemistry, ionic liquids, anti-cancer agent synthesis, small molecules, molecular electronics, separations technology, energy harvesting and storage**
- **16 years** of laboratory experience with emphasis in **R&D and analysis**, and **15 years** of teaching experience (High School, College, University, Tutoring)
- Highly experienced in **synthesis and characterization of small and big molecules and polymers** as well as in **sample preparation, testing and analysis**, and in instrumental and analytical techniques including **NMR (1D & 2D), HPLC, GPC (SEC), Mass Spectrometry (MS, HR-MS and GC-MS), IR, UV-Vis**, etc.
- Excellent **collaborative experience within multidisciplinary teams**, and **verbal and written communication skills** towards **scientific and non-scientific audiences**
- Highly experienced in performing **research & analysis on scientific innovations**, conducting **prior art database searches**, and analyzing **patent and scientific papers & documents**, preparing presentations to **teach and explain details of innovations to attorneys and different business teams**, and advising **lawyers on technology issues** in preparation for depositions
- Also experienced in evaluating **patentability & freedom to operate analyses of innovations**, preparing **patent applications, patentability, infringement and validity opinions**, and responding to **office actions regarding patent applications**

Career & Education

Jan 2020-Current	Assistant Professor	Engineering and Natural Sciences	Kadir Has University (KHAS), Istanbul, TURKEY
June 2020-Dec 2020	Visiting Professor	Engineering and Natural Sciences	Kadir Has University (KHAS), Istanbul, TURKEY
Sep 2017-Aug 2020	Postdoctoral Fellow	Prof. Sir J. Fraser Stoddart	Northwestern University (NU), Evanston, IL, USA
Sep 2019-May 2020	Technical Specialist	SKGF	Sterne, Kessler, Goldstein & Fox, Washington, DC, USA
Jan 2012-Aug 2017	Ph.D. in Chemistry	Prof. Michael F. Mayer	Texas Tech University (TTU), Lubbock, Texas, USA
Feb 2009-Aug 2011	Research Adjunct	Prof. M. Scott Goodman	State University of New York (SUNY), Buffalo, NY
Jan 2007-Dec 2008	M.Sc. in Chemistry	Prof. M. Scott Goodman	State University of New York (SUNY), Buffalo, NY
Oct 2005-Dec 2006	Research Assistant	Prof. Nurettin Yayli	Karadeniz Technical University (KTU), TURKEY
Sep 2000-June 2005	B.Sc. in Science	Prof. Nurettin Yayli	Karadeniz Technical University (KTU), TURKEY

Professional Affiliations & Awards & Memberships & Certificates

Awards and Honors:

- **FULBRIGHT Scholarship for M.Sc.**, Institute of International Education (IIE)
- **Upper Level Organic Chemistry Teaching Award**, TTU
- **Alumni Association Student Leadership Award**, TTU
- **2nd Place in Science Research Competition**, TTU
- **TUBITAK (The Scientific and Technological Research Council of Turkey) Fellowship for PhD** (Nation-Wide), Turkish Government, TURKEY
- **Student Leadership Recognition Award**, 2008 Who's Who among Students in American Universities and Colleges for the best academic performance and recognition of outstanding merit and accomplishment, SUNY
- **2008 Chemistry Alumni Award** for the best outstanding academic performance, SUNY
- **Housing and Meal Awards** for the best academic performance in Chemistry, SUNY
- **General Directorate of Higher Education Credit and Hostels Institution Award** (Nation-Wide), TURKEY
- **3rd Place (out of 350) Student in the Department of Secondary Science and Math Education**, KTU, TURKEY
- **2nd Place (out of 36) Student in the Chemistry Instruction Program**, KTU, TURKEY

- **High Honor Student in 4 semesters & Honor Student in 5 semesters, KTU, TURKEY**

Affiliations & Memberships:

- **American Chemical Society (ACS)**, Member, 2008-current
- **Fulbright Alumni Association**, Lifetime Member, 2008-current (IIE)
- **Texas Tech Alumni Association (TTAA)**, Lifetime Member, 2017-current (TTU)
- **The Honor Society of Phi Kappa Phi (National)**, Lifetime Honorary Member, 2017-current (TTU)
- **Phi Lambda Upsilon National Honor Society for Students in Chemistry**, Lifetime Honorary Member, 2008-current (TTU)
- **International Alumni Chapter, International Students Honor Society**, Lifetime Honorary Member, 2008-current (SUNY)
- **Chemistry Graduate Student Organization (CGSO)**, President, 2015-2017 (TTU)
- **Chemistry Graduate Student Organization (CGSO)**, Treasurer, 2013-2015 (TTU)
- **Student Government Association (SGA)**, Member, 2013-2017 (TTU)
- **Graduate Student Advisory Council (GSAC)**, Voting Officer, Community Outreach & Public Relations Commission, 2012-2017 (TTU)

Certificates & Licenses:

- ACS Reviewer Lab Certificate
- Certificate of Achievement for Fulbright Scholarship Program
- Certificate of Achievement for Hands On Fire Extinguisher Training
- Certificate of Achievement for Responsible Conduct of Research (RCR)_Ethics
- Certificate of Achievement for WCAS Chemistry RCR Curriculum
- Laboratory Safety Certificate of Completion
- Personal Protective Equipment Certificate of Completion
- Hydrofluoric Acid and Fluoride Ion Hazards Certification
- Laboratory Reactor Pressure Vessel Certification
- Hazardous Chemical Waste Management Certification
- Compressed Gas Cylinders Certification
- American Chemical Society Membership Certification
- Equal Employment Opportunity (EEO) Training 2.0 Certificate of Completion
- EEO Non-Discrimination for Employees V2 Certificate of Completion
- Certificate of Completion for Preventing Sexual Misconduct and Sex Discrimination
- Certificate of Completion for Intensive English Program (Academic ESL)
- Groundwork Program Completion Certificate
- Science Teacher's Certificate of Completion - Science Teacher's Association of NY State Inc.
- Advanced Computer User Certificate
- Laboratory Safety Completion Certificate
- Chemical Hygiene Plan (CHP) Training and Completion Certificate
- Amateur Soccer Player License - Adanaspor, Adana, Turkey

Work Experience

Jan 2021 – Current

Assistant Professor at Department of Bioinformatics and Genetics, Kadir Has University

General Duties and Field of Study:

- Establish a New Research and Development Building (planning the building, arranging and organizing research labs, listing fundamental instrumentation and finding proper locations in the building, writing proposals, etc.)
- Research (%80), Teaching and Related Duties (%15), Administrative Support (%5)
- Highly Ordered "Active Pockets" from Organic/Inorganic Hybrid Materials as Templates (HOAPs)
- Polyrotaxanes as Smart Polymer Binders (PRs-SPBs) and their Various End Applications
- Novel Breast Cancer Brain Metastasis (BCBM) Anti-Cancer Reagents: Systems Biology Approach
- Teach Core Courses (KHAS101 and KHAS102) – Chemistry Modules, General Chemistry I (CH103) and II (CH104), and mentoring undergraduate/graduate students

June 2020 – Dec 2020

Visiting Professor at Department of Bioinformatics and Genetics, Kadir Has University

General Duties and Field of Study:

- Research (%70), Teaching and Related Duties (%20), Administrative Support (%10)
- Highly Ordered "Active Pockets" from Organic/Inorganic Hybrid Materials as Templates (HOAPs)
- Polyrotaxanes as Smart Polymer Binders (PRs-SPBs) and their Various End Applications
- Novel Breast Cancer Brain Metastasis (BCBM) Anti-Cancer Reagents: Systems Biology Approach
- Teach Core Course KHAS101 – Chemistry Module and mentoring undergraduate/graduate students

Sep 2019 – May 2020

Technical Specialist at Sterne, Kessler, Goldstein & Fox

General Duties and Field of Study:

- Perform research and analysis on scientific innovations within the areas fitting in his expertise
- Conduct prior art database searches, and analyze patent and scientific papers and documents
- Prepare presentations and have sessions to teach and explain the details of the innovations to attorneys and different business teams, and advise lawyers on technology issues in preparation for depositions
- Provide guidance on a variety of patent and intellectual property-related issues
- Evaluate the patentability and freedom to operate analyses of innovations, prepare and draft patent applications, prepare patentability, infringement and validity opinions, and response to office actions

Sep 2017 – Aug 2020

Postdoctoral Fellow with 2016 Nobel Laureate Prof. Sir J. Fraser Stoddart at Department of Chemistry, Northwestern University

General Duties and Field of Study:

- Design, creation and characterization of chemical compounds and materials for various end uses including but not limited to molecular electronics, energy harvesting and storage, and separations technology
- Combining intra- and intermolecular charge transfer with polycationic cyclophanes to design 2D tessellations
- Switchable rotaxanes and catenanes, powering supramolecular machines with nanoscale power supplies, nanofabrication
- New generation late transition metal ion catalysts and their catalytic applications
- BODIPY-based monomer and polymer syntheses and their applications as photosensitizers
- Metal organic frameworks (MOFs) and their catalytic applications
- Mentoring undergraduate/graduate students (1 undergraduate and 2 graduate students)

Jan 2012 – Aug 2017

Research and Teaching Assistant with Prof. Michael F. Mayer at Department of Chemistry & Biochemistry, Texas Tech University

General Duties and Field of Study:

- Synthesis of metalated pseudorotaxane polymers with full control over the average linear density of threaded macrocycles
- [2]Rotaxane, [2]catenane syntheses, use of Ring Closing Metathesis (RCM), Ring Opening Metathesis Polymerization (ROMP) and Acyclic Diene Metathesis (ADMET) polymerization
- Ionic liquid syntheses and various applications
- Anti-cancer drug synthesis for breast cancer and brain metastasis
- Synthesis and characterization of copper(I) complexes for study of dynamic supramolecular ring-chain equilibria and applications as photo-redox catalysts
- Teaching Organic Chemistry II Recitation (3306 (2 sections)), Organic and General Chemistry Labs (1108 (3 sections), 3105 (2 sections), 3106 (2 sections)), Advanced Organic Chemistry Lab (3201 (1 section))
- Mentoring undergraduate students (4 undergraduate students)

Jan 2009 – Aug 2011

Research Adjunct at Department of Chemistry, State University of New York College at Buffalo

General Duties and Field of Study:

- Synthesis of Indian yellow pigment and its applications on paintings
- Mentoring undergraduate students (2 students)
- Lecturing Organic Chemistry (I and II) and teaching Organic Chemistry Labs (I and II), planning course instruction based upon approved syllabus/outline, utilizing a variety of teaching techniques to accommodate the learning skills of a diverse student enrolment, designing, administrating, and grading examinations of courses, actively working to retain a high level of enrolment and daily attendance records

Jan 2007 – Dec 2008

Research and Teaching Assistant with Prof. M. Scott Goodman at Department of Chemistry, State University of New York College at Buffalo

General Duties and Field of Study:

- Approaches to the synthesis of Indian yellow
- Time-resolved FTIR measurements of the thermally activated decay of meta-stable states I and II in Sodium Nitroprusside
- Mentoring undergraduate students (1 student)
- Teaching Organic Chemistry Labs (I and II), planning lab instruction and experiments based upon approved syllabus/outline, utilizing a variety of teaching techniques and lab skills to accommodate the learning skills of a diverse student enrolment

Oct 2005 – Dec 2006

Research and Teaching Assistant with Prof. Nurettin Yayli at Department of Chemistry, Karadeniz Technical University

General Duties and Field of Study:

- Photochemical synthesis
- Synthesis of natural products, polymers, and extraction of oils from natural plants

- Teaching Organic Chemistry Labs (I and II) and Instrumental Analysis Lab, planning lab instruction and experiments based upon approved syllabus/outline, utilizing a variety of teaching techniques and lab skills to accommodate the learning skills of a diverse student enrolment, and using instruments actively (UV, IR, AES, AAS, GC-MS, NMR)

Scientific and Personal Skills & Abilities

Personal & Leadership & Management & Language & Computer & Communication Skills:

Personal	Leadership & Communication	Language	Computer	Management
- Critical thinker & good analyzer & interpreter for results of research - Original idea generator - Highly goal & team oriented, self-motivated & confident - Effective researcher & problem solver, proven organizational & personal time management, strong & continuous self-monitoring - Excellent attention to detail/record keeping ability - Ability & willingness to engage in a continuous learning program	- Strong believer of team effort - Highly motivator - Time management - Meeting organizations - Targeting excellence - Managing of lab supplies/consumables - Managing conflicts and handling stress - Increasing time & energy efficiency of team	- English (fluent & very advanced) - Turkish (native) - German (pre-intermediate) - Spanish and Arabic (beginner)	- Office Applications: MS Word, Excel, PowerPoint, FrontPage - Graphic Applications: Camtasia Studio 8, MAYA 2016, Adobe Acrobat Professional and Photoshop - Chemistry Applications: Hystar (v3.2) Data Acquisition, Compass (v4.1) Data Analysis, X-Callibur, FlexControl, Compass Flex Analysis (v3.4), Apex II and Olex2, MassHunter Workstation Data Acquisition, MassHunter Qualitative Analysis, Hyper- Chem. 7.5, Chem-Draw, SciFinder, and NMR data processing softwares, MestReNova, Delta, Nuts, etc. - Cyber Services: https://www.youtube.com/watch?v=Lp7BJHL2Bpk	- Research laboratory set-up - Project & laboratory & personal time management and motivation - Conflict & stress management - Research & lab safety protocols - Research meeting coordination - Undergraduate & graduate Student Mentorship - Chemical inventory & segregation & waste disposal protocols, records and applications (Organic & Inorganic) - Chemical & instrumental quotes, purchases and service maintenance

Applied Spectroscopic Techniques & Skills:

Techniques Used	Instruments Trained
Nuclear Magnetic Resonance Spectroscopy (1D and 2D) (^1H , ^{13}C , ^{19}F , ^{31}P , ^1H - ^1H COSY, HMQC, HMBC, NOESY)	NMR Instruments (Bruker Spectrospin 250 Ultra Shield, Bruker Spectrospin 300 Ultra Shield, JEOL 400, Bruker Spectrospin 400 and 500 Ultra Shield)
Size-Exclusion Chromatography (SEC), Analytical Liquid and Gel Chromatography	Dionex GPC (SEC)
High-Performance Liquid Chromatography (HPLC)	Dionex HPLC (normal and chiral columns)
Gas Chromatography Mass Spectrometry (GC-MS)	GC-Mass Spectrometer–Finnigan Trace GC Ultra and Trace DSQ using X-Callibur Software
High-Resolution Mass Spectrometry (HR-MS)	Agilent 6210A LCTOF High Resolution Time of Flight Spectrometer connected to Agilent 1200 Series HPLC, using MassHunter Workstation Data Acquisition (for instrument operation) and MassHunter Qualitative Analysis (data analysis and processing) Softwares
Ion Trap Mass Spectrometry	Bruker AmaZon SL Ion Trap Mass Spectrometer connected to Agilent 1100 Series HPLC, using Hystar (v3.2) Data Acquisition (for instrument operation) and Compass (v4.1) Data Analysis (for data analysis and processing) Softwares
Matrix-Assisted Laser Desorption Ionization Time-of-Flight (MALDI-TOF) Mass Spectrometry	Bruker AutoFlex III MALDI-TOF Mass Spectrometer, using FlexControl (data acquisition) and Compass Flex Analysis (v3.4) (data analysis and processing) Softwares
X-Ray Diffractometer	Bruker KAPPA APEX II (Prospector and Moly)
Separation and Purification	Teledyne CombiFlash Rf Flash Chromatography Pred. to Rf+ Unit4
Spectrochemical Trace Elemental Analysis	Atomic Absorption (AA) and Atomic Emission (AE) Spectrometers
Infra-Red and Ultra-Violet	FT-IR Instrument – Bruker IFS 66v/s, UV-Vis Instrument – Shimadzu, Dionex LC-UV/Vis-Fluorescence
Molecular Weight Analysis	Gel Permeation Chromatography (GPC), Dilute Solution Viscosity Testing (IV), Melt Flow Index Testing (MFI)
Morphology Analysis	Scanning Electron Microscopy (SEM), Transmission Electron Microscopy (TEM), Atomic Force Microscopy (AFM)
Simultaneous Thermal Analysis (STA)–Thermal Properties	Differential Scanning Calorimetry (DSC), Thermogravimetry Analysis (TGA), Rheology Testing, Dynamic Mechanical Testing (DMA)

Peer-Reviewed Publications & Manuscripts in Preparation

Manuscripts Published: 14 (total citations: 219, h-index: 10, and i10-index: 11)

- 1) Atilgan, A.; **Cetin, M. M.**; Yu, J.; Beldjoudi, Y.; Liu, J.; Stern, C. L.; Cetin, F. M.; Islamoglu, T.; Farha, O. K.; Deria, P.; Stoddart, J. F.; Hupp, J. T. Post-Synthetically Elaborated BODIPY-based Porous Organic Polymers (POPs) for Photochemical Detoxification of a Sulfur Mustard Simulant. *J. Am. Chem. Soc.* **2020**, *142*, 18554–18564. (19 citations)
<https://doi.org/10.1021/jacs.0c07784>
- 2) **Cetin, M. M.**; Shafiei-Haghighi, S.; Chen, J.; Zhang, S.; Miller, A. C.; Unruh, D. K.; Casadonte, Jr., D. J.; Lohr, T. L.; Marks, T. J.; Stoddart, J. F.; Mayer, M. F.; Findlater, M. Synthesis, Structures, Photophysical Properties, and Catalytic Characteristics of 2,9-dimesityl-1,10-phenanthroline (dmesp) Transition Metal Complexes. *J. Poly. Sci.* **2020**, *58*, 1130–1143. (2 citations)
<https://doi.org/10.1002/pol.20190276>
- 3) Garci, A.; Beldjoudi, Y.; Kodaimati, M. S.; Hornick, J. S.; Nguyen, M. T.; **Cetin, M. M.**; Stern, C. L.; Roy, I.; Weiss, A. W.; Stoddart, J. F. Mechanical-Bond-Induced Exciplex Fluorescence in an Anthracene-Based Homo[2]catenane. *J. Am. Chem. Soc.* **2020**, *142*, 7956–7967. (12 citations)
<https://doi.org/10.1021/jacs.0c02128>
- 4) Chen, Y.; Li, P.; Zhou, J.; Buru, C. T.; Đorđević, L.; Li, P.; Zhang, X.; **Cetin, M. M.**; Stoddart, J. F.; Stupp, S. I.; Wasielewski, M. R.; Farha, O. K. Integration of Enzymes and Photosensitizers in a Hierarchical Mesoporous Metal-Organic Framework for Light-Driven CO₂ Reduction. *J. Am. Chem. Soc.* **2020**, *142*, 1768–1773. (43 citations)
<https://doi.org/10.1021/jacs.9b12828>
- 5) **Cetin, M. M.**; Beldjoudi, Y.; Roy, I.; Anamimoghdam, O.; Bae, Y. J.; Young, R. M.; Krzyaniak, M. D.; Stern, C. L.; Philp, D.; Alsubaie, F. M.; Wasielewski, M. R.; Stoddart, J. F. Combining Intra- and Intermolecular Charge Transfer with Polycationic Cyclophanes to Design 2D Tessellations. *J. Am. Chem. Soc.* **2019**, *141*, 18727–18739. (11 citations)
<https://doi.org/10.1021/jacs.9b07877>
- 6) Beldjoudi, Y.; Narayanan, A.; Roy, I.; Pearson, T. J.; **Cetin, M. M.**; Nguyen, M. T.; Krzyaniak, M. D.; Alsubaie, F. M.; Wasielewski, M. R.; Stupp, S. I.; Stoddart, J. F. Supramolecular Tessellations by a Rigid Naphthalene Diimide Triangle. *J. Am. Chem. Soc.* **2019**, *141*, 17783–17795. (18 citations)
<https://doi.org/10.1021/jacs.9b08758>
- 7) Roy, I.; Bobbala, S.; Young, R. M.; Beldjoudi, Y.; Nguyen, M. T.; **Cetin, M. M.**; Cooper, J. A.; Allen, S.; Anamimoghdam, O.; Scott, E. A.; Wasielewski, M. R.; Stoddart, J. F. A Supramolecular Approach for Modulated Photoprotection, Lysosomal Delivery, and Photodynamic Activity of a Photosensitizer. *J. Am. Chem. Soc.* **2019**, *141*, 12296–12304. *This manuscript has been selected for the front cover artwork of issue 31.* (22 citations)
<https://doi.org/10.1021/jacs.9b03990>
- 8) Thakurathi, M.; Gurung, E.; **Cetin, M. M.**; Arachchige, V. T.; Mayer, M. F.; Quitevis, E. L. The Stokes-Einstein Equation and the Diffusion of Ferrocene in Room Temperature Ionic Liquids (RTILs) Studied by Cyclic Voltammetry. *Electrochim. Acta*, **2018**, *259*, 245–252. (17 citations)
<https://doi.org/10.1016/j.electacta.2017.10.149>
- 9) **Cetin, M. M.** Synthesis and Characterization of Copper(I) Complexes for Study of Dynamic Supramolecular Ring-Chain Equilibria and Application as Photoredox Catalysts. Doctor of Philosophy Dissertation, Texas Tech University, **2017**.
<https://www.depts.ttu.edu/chemistry/Seminars/defenses/2017.php>
- 10) **Cetin, M. M.**; Hodson, R. T.; Hart, C. R.; Cordes, D. B.; Findlater, M.; Casadonte, Jr., D. J.; Cozzolino, A. F.; Mayer, M. F. Characterization and photocatalytic behavior of 2,9-di(aryl)-1,10-phenanthroline copper (I) complexes. *Dalton Trans.* **2017**, *46*, 6553–6569. *This manuscript has been selected for the back cover artwork of issue 46.* (27 citations)
<https://pubs.rsc.org/en/content/articlelanding/2017/DT/C7DT00400A#!divAbstract>
- 11) Tao, R.; Gurung, E.; **Cetin, M. M.**; Mayer, M. F.; Quitevis, E. L.; Simon, S. L. Fragility of Ionic Liquids Measured by Flash Differential Scanning Calorimetry. *Thermochim. Acta*, **2017**, *654*, 121–129. (22 citations)
<https://doi.org/10.1016/j.tca.2017.05.008>
- 12) Kang, S.; **Cetin, M. M.**; Jiang, R.; Clevenger, E. S.; Mayer, M. F. Polypseudorotaxane Synthesis with Full Control over the Average Linear Density of Threaded Macrocycles. *J. Am. Chem. Soc.* **2014**, *136*, 12588–12591. (16 citations)
<https://doi.org/10.1021/ja507167k>
- 13) Yayli, N.; Cansu, T. B.; Yilmaz, N.; Yasar, A.; **Cetin, M. M.**; Yayli, N. Constituents of the Essential Oil from the Flower, Leaf and Stem of *Salvia viridis* L. Grown in Turkey. *Asian Journal of Chemistry*, **2010**, *22*(5), 3439–3446. (10 citations)
http://www.asianjournalofchemistry.co.in/user/journal/viewarticle.aspx?ArticleID=22_5_18
- 14) **Cetin, M. M.** Approaches to the Synthesis of Indian Yellow. Master's Thesis, State University of New York, **2008**.

Manuscripts Submitted and in Preparation: 6 (submitted / under editorial review / in preparation)

- 1) **Cetin, M. M.**; Mazumdar, A.; Cordes, D. B.; Mayer, M. F. [2]Rotaxane Synthesis via a Dynamic [2]Catenane-Ring-Opening, Axle-Cleaving, Olefin Double Cross Metathesis, *J. Am. Chem. Soc.* **2021**, *in preparation*.
- 2) **Cetin, M. M.**; Atilgan, A.; Stern, C.; Hupp, J. T.; Stoddart, J. F. Highly Strained π -Extended Cyclophane: π -ExtBox, *J. Am. Chem. Soc.* **2021**, *in preparation*.
- 3) Gurung, E.; Tao, R.; **Cetin, M. M.**; Arachchige, V. T.; Unruh, D.; Mayer, M. F.; Simon, S. L.; Quitevis, E. L. Study of the Effect of Anion on the X-ray Crystal Structures and Thermal Properties of 1,3-Dibenzylimidazolium Based Ionic Liquids, **2021**, *in preparation*.
- 4) Gurung, E.; **Cetin, M. M.**; Tamas, G.; Mayer, M. F.; Quitevis, E. L. Effect of Anion on the Solidification of Symmetrical Aromatic

- Ionic Liquids, 2021, *in preparation*.
- Gurung, E.; **Cetin, M. M.**; Tamas, G.; Mayer, M. F.; Quitevis, E. A OHD-RIKES Study Comparing the Intermolecular Dynamics of CS₂ in Asymmetric and Symmetric Imidazolium Ionic Liquids, 2021, *in preparation*.
 - Toops, A.; Xue, L.; Krapfel, J.; Zubiato, C.; Awour, T.; Bacon, S.; Kronenberg, J.; Pochareddy, S.; Tamas, G.; Mendoza, K.; Gurung, E.; **Cetin, M. M.**; Son, P.; Mayer, M. F.; Quitevis, E. Effect of Cation Symmetry in the Denaturation of Ribonuclease A by Imidazolium Ionic Liquids, 2021, *in preparation*.

Conferences & Symposiums & Seminars & Talks

Conferences & Symposiums: *19 National & International Meetings*

- M. Mustafa Cetin** and J. Fraser Stoddart. Creating Two-Dimensional Porous Materials through Tessellation of Shape-Persistent Donor-Acceptor Cyclophanes, *Abstracts of Papers*, 14th International Symposium on Macrocyclic and Supramolecular Chemistry (ISMSC), Lecce, Italy, June 2–6, 2019.
- M. Mustafa Cetin** and J. Fraser Stoddart. 2D Porous Materials through Tessellation of Shape-Persistent Donor-Acceptor Cyclophanes, *Abstracts of Papers*, 2019 Gordon Research Conference (GRC), Les Diablerets, Switzerland, May 19–25, 2019.
- M. Mustafa Cetin**, Yassine Beldjoudi and J. Fraser Stoddart. Tessellation of Shape-Persistent Donor-Acceptor Cyclophanes for the Creation of Two-Dimensional Porous Materials, *Abstracts of Papers*, 257th American Chemical Society National Meeting & Exposition, Orlando, FL, March 31–April 4, 2019; Organic Abstract 320.
- Yassine Beldjoudi, **M. Mustafa Cetin**, Ashwin Narayanan and J. Fraser Stoddart. Supramolecular Triangular Tiling of Electron Active Macrocycles for the Design of Organic Conductors and Photoconductors, *Abstracts of Papers*, 257th American Chemical Society National Meeting & Exposition, Orlando, FL, March 31–April 4, 2019; PHYS Abstracts 510.
- Mahesh Thakurathi, Eshan Gurung, **M. Mustafa Cetin**, Vidura Thalangamaarachchige, Michael F. Mayer, Carol L. Korzeniewski and Edward L. Quitevis. Comparative Voltammetric Studies of the Diffusion of Ferrocene in Symmetric and Asymmetric Imidazolium Ionic Liquids, *Abstracts of Papers*, 254th American Chemical Society National Meeting & Exposition, Washington, DC, Aug 20–24, 2017; Analytical Abstract 166 (ANYL-166).
- M. Mustafa Cetin**, Roman T. Hodson, C. Robin Hart, David B. Cordes, Michael Findlater, Dominick J. Casadonte, Jr., Anthony F. Cozzolino and Michael F. Mayer. Synthesis, structural characterization, photophysical properties, theoretical calculations and catalytic studies of 2,9-di(aryl)-1,10-phenanthroline copper (I) complexes, *Abstracts of Papers*, 252nd American Chemical Society National Meeting & Exposition, Philadelphia, PA, Aug 21–25, 2016; Organic Abstract 498.
- Holden R. Fried, Steven F. Hoxie, Bandon A. Sandoval, Colton R. Davis, Lauren J. Holmes, **M. Mustafa Cetin**, David B. Cordes and Michael F. Mayer. Synthesis of a [2]rotaxane via dynamic ring-chain equilibration, 2016 Undergraduate Research Conference, Texas Tech University, Lubbock, TX, March 29–30, 2016.
- Eshan Gurung, Ran Tao, Daniel Unruh, **M. Mustafa Cetin**, George Tamas, Michael F. Mayer, Sindee L. Simon and Edward L. Quitevis. Study of the Effect of Anion on the X-ray Crystal Structures and Thermal Properties of 1,3-dibenzylimidazolium Based Ionic Liquids, *Abstracts of Papers*, The Southeastern Regional Meeting of the American Chemical Society – Southwest Region Meeting (Combined Meeting–71st SWRM/67th SERMACS), Memphis, TN, Nov 4–7, 2015; Abstract 27.
- Mahesh Thakurathi, Edward L. Quitevis, Michael F. Mayer, **M. Mustafa Cetin** and Eshan Gurung. The Stokes-Einstein Equation and the Diffusion of Ferrocene in Room Temperature Ionic Liquids (RTILs) Studied by Cyclic Voltammetry, *Abstracts of Papers*, The Southeastern Regional Meeting of the American Chemical Society – Southwest Region Meeting (Combined Meeting–71st SWRM/67th SERMACS), Memphis, TN, Nov 4–7, 2015; Abstract 38.
- M. Mustafa Cetin**, David B. Cordes and Michael F. Mayer. A [2]Rotaxane from a [2]Catenane via Dynamic Ring-Chain Equilibration: Scope and Optimization, *Abstracts of Papers*, 250th American Chemical Society National Meeting & Exposition, Boston, MA, Aug 16–20, 2015; Organic Abstract 550.
- M. Mustafa Cetin**, David B. Cordes and Michael F. Mayer. A [2]rotaxane via dynamic ring-chain equilibration, 2015 Graduate Student Research Poster Competition, Texas Tech University, Lubbock, TX, April 10, 2015. (2nd place award-winning poster)
- M. Mustafa Cetin**, Arindam Mazumdar, David B. Cordes and Michael F. Mayer. Synthesis of a [2]Rotaxane via Dynamic Ring-Chain Equilibration, *Abstracts of Papers*, 248th American Chemical Society National Meeting & Exposition, San Francisco, CA, Aug 10–14, 2014; Organic Abstract 820.
- M. Mustafa Cetin**, David B. Cordes and Michael F. Mayer. Synthesis, Characterization and Crystal Structures of Substituted 1,10-Phenanthroline Ligands and their Cu(I) Complexes, 2014 Graduate Student Research Poster Competition, Texas Tech University, Lubbock, TX, March 7, 2014.
- Jade J. Welch, **M. Mustafa Cetin**, Andrew Schick and M. Scott Goodman, Total Synthesis of Indian Yellow, *Abstracts of Papers*, 38th Northeast Regional Meeting of the American Chemical Society Rochester, NY, Sep 30–Oct 3, 2012; NERM-254.
- Nuran Kahriman, Tayyibe B. Cansu, Nagihan Yilmaz Iskender, Ahmet Yasar, **M. Mustafa Cetin** and Nurettin Yayli, Turkiye’de Yetisen *Salvia viridis* L. Bitkisinin Cicek, Yaprak ve Govdesinden Elde Edilen Ucucu Yaglarin Kimyasal Bilesimleri, *Abstract of Papers*, 24th Ulusal Kimya Kongresi, Zonguldak Karaelmas Universitesi, Zonguldak, Turkey, June 29–July 2, 2010, Organik Kimya 749.
- M. Mustafa Cetin**, Joseph L. Zawicki and Asli Bagislayici. Understanding Student Thinking in Chemistry: A Comparison of Large-Scale Testing in Turkey and the United States. *Abstracts of Papers*, XIII. IOSTE Symposium (*Educational Session*), Kusadasi, Izmir, TURKEY, Sep, 2008. CHED-1274.
- Matthew R. Tarasek, Paul M. Seidler, **M. Mustafa Cetin** and Kimberly A. Bagley. Time-Resolved FTIR Measurements of the Thermally Activated Decay of Meta-Stable States I and II in Sodium Nitroprusside, *Abstracts of Papers*, 235th American Chemical Society National Meeting & Exposition, New Orleans, LA, April 6–10, 2008; CHED-1264.

- 18) **M. Mustafa Cetin** and Joseph L. Zawicki. High School Chemistry: A Comparison of Courses in the United States and Turkey, *Abstracts of Papers*, 235th American Chemical Society National Meeting & Exposition, New Orleans, LA, April 6-10, 2008; CHED- 741.
- 19) **M. Mustafa Cetin** and Joseph L. Zawicki. High School Chemistry: The Alignment of Resources in Turkey and New York State, *Abstracts of Papers*, 44th Eric F. Gardner Conference, Auburn, NY, Sep, 2007.

Seminars: **9 National & International Seminars**

- 1) **Cetin, M.M.**, Porous Organic Materials/Polymers: Design, Synthesis and Applications, Departmental Colloquium at Kadir Has University, Istanbul, TURKEY. (March 2021)
- 2) **Cetin, M.M.**, Synthesis and Characterization of Copper(I) Complexes for Study of Dynamic Supramolecular Ring-Chain Equilibria and Applications as Photoredox Catalysts, *PhD Dissertation Defense* at Texas Tech University, Lubbock, TX, USA. (Aug 2017)
- 3) **Cetin, M.M.**, Rotaxane Synthesis via a Dynamic [2]Catenane-Ring-Opening, Axle-Cleaving, Olefin Double Cross Metathesis, *Research Examination-PhD requirement* at Texas Tech University, Lubbock, TX, USA. (Nov 2013)
- 4) **Cetin, M.M.**, Polymer Mechanochemistry: Design and Study of Mechanophores, *Literature Seminar-PhD requirement* at Texas Tech University, Lubbock, TX, USA. (Dec 2012)
- 5) **Cetin, M.M.**, Approaches to the Synthesis of Indian Yellow, *MS Thesis defense* at SUNY-College at Buffalo, Buffalo, NY, USA. (Dec 2008)
- 6) **Cetin, M.M.**, Microwave-Assisted Synthesis: Applications to Cycloaddition Reactions, *Literature Seminar Series* at SUNY-College at Buffalo, Buffalo, NY, USA. (April 2008)
- 7) **Cetin, M.M.**, Green Chemistry, Turkey, and Fulbright, *Guest Speaker of Chemistry and Forensic Club* at SUNY-College at Buffalo, Buffalo, NY, USA. (April 2008)
- 8) Gounard, J. F.; **Cetin, M.M.**; Helene Loncke, Many facets and opportunities of the Fulbright program, *12th Annual Student Affairs Professional Conference (Session II)*, Buffalo, NY, USA. (Nov 2007)
- 9) Gounard, J. F., **Cetin, M.M.**, & Helene Loncke (2007, November). The meaning of being an international student in America today. *12th Annual Student Affairs Professional Conference (Session III)*, Buffalo, NY, USA. (Nov 2007)

Invited Talks: **8 National & International Invited Talks**

- 1) **Cetin, M.M.**, Porous Organic Polymers: Design, Synthesis and Use in Photochemical Detoxification of a Sulfur Mustard Simulant, Departmental Seminar Series at Bilkent University, Ankara, TURKEY. (April 2021)
- 2) **Cetin, M.M.**, Porous Organic Materials: Design, Synthesis, and Applications, *Departmental Colloquium – Special Seminar Series* at Koc University, Istanbul, TURKEY. (13 June 2019)
- 3) **Cetin, M.M.**, 2D/3D Porous Materials and their Applications in Supramolecular Chemistry, Materials Science & Pharmaceutical Industry, *Departmental Colloquium – Special Seminar Series* at Kadir Has University, Istanbul, TURKEY. (28 May 2019)
- 4) **Cetin, M.M.**, 2D/3D Porous Organic Materials: Design, Synthesis, and Applications in Supramolecular Chemistry, Materials Science and Pharmaceutical Industry, *Departmental Colloquium – Special Seminar Series* at Gebze Technical University, Gebze, Kocaeli, TURKEY. (27 May 2019)
- 5) **Cetin, M.M.**, Educational and Social Life in an Abroad Country, Scholarship and Job Opportunities, *Special Seminar* at Karadeniz Technical University, Trabzon, TURKEY. (17 May 2019)
- 6) **Cetin, M.M.**, Synthesis of 2D/3D Porous Organic Materials, and Use and Applications in Pharmacy, *Departmental Colloquium – Special Seminar Series* at Karadeniz Technical University, Trabzon, TURKEY. (16 May 2019)
- 7) **Cetin, M.M.**, Synthesis of 2D/3D Porous Organic Materials, and their use in Supramolecular Chemistry and Materials Sciences, *Departmental Colloquium – Special Seminar Series* at Erzincan University, Erzincan, TURKEY. (15 May 2019)
- 8) **Cetin, M.M.**, Tessellation of Shape-Persistent Donor-Acceptor Cyclophanes for the Creation of Two-Dimensional Porous Materials, *Departmental Colloquium – Weekly Seminar Series* at State University of New York College at Buffalo, Buffalo, NY, USA. (8 Nov 2018)

Extra-Curricular Activities & Volunteering & Fundraising

ORGANIZATION	POSITION	VOLUNTEERING	FUNDRAISING
Chemistry Graduate Student Organization (CGSO)	Treasurer	30 hours per year	\$17,500/year
Chemistry Graduate Student Organization (CGSO)	President	40 hours per year	\$36,000/year
Fulbright Alumni Association	Alumni	10 hours per year	Recruiting only
Texas Tech University, Department of Chemistry & Biochemistry	Grad. Student	10 hours per year	Recruiting only
Departmental Luncheon for Thanksgiving	Grad. Student	2 hours per year	\$400/year
Graduate Student Travel Support for Meetings and Conferences	Grad. Student	10 hours per year	\$9,500/year
Graduate Student Advisory Council (GSAC)	Officer	5 hours per year	Grad. Student Life
Student Government Association (SGA)	Member	5 hours per year	Voting only
Playing Soccer, Softball, and Volleyball for Cancer Societies	Student	10 hours per year	Support and \$150
Running short and long distance marathons for Cancer Societies	Student	10 hours per year	Support and \$250
Supporting Project Jim at Texas Tech University	Organizational	1 hour (one time event)	\$5,000