Yavuz S. Ceylan, Ph.D.
Brandeis University
Department of Chemistry | Carl J. Shapiro Science Center
415 South Street, Waltham, MA 02453
(817) 721-8837
yavuzceylan@brandeis.edu

PASSIONATE EDUCATOR WHO IS SEEKING CHEMISTRY FACULTY POSITION

Committed lecturer with 4 years teaching experience at graduate and high school teaching students from various social and cultural background. Skilled in planning, implementing, and evaluating classroom and laboratory experiences for students in chemistry content areas that address diverse interests and needs of students. Possessed excellent verbal and written communication skills, have strong skills in the use of instructional technology with effective scaffolding methods that promote successful learning environment.

Experienced in;

- Flipped classroom instruction
- Multicultural awareness
- Online and onsite teaching
- Motivating and counseling students
- Curriculum designing and development
- Familiar with college requirements and curriculum in chemistry
- Cooperative and differentiative instruction
- Excellent verbal and written communication skills
- Preparing and designing the lectures after assessing students
- Interactive and student-centered learning with the help of technology

Teaching Experiences

Postdoctoral associate **August 2019–Present**
Brandeis University **Waltham, MA**

Helping mentor junior members of the research group
Helping students understand the general principles and concepts underlying chemistry subjects
Explaining both basic and difficult concepts clearly to members of the research group
Providing feedback and corrections to students' manuscripts and presentations

Graduate teaching Assistant **August 2015–May 2019**
University of North Texas **Denton, TX**

Preparing and delivering presentations before the lab start
Cleaning labs and setting up equipment
Helping professors develop course plans
Creating and writing materials such as answer keys, and supplementary notes
Obtain materials needed for classes, including texts and other materials

Chemistry teacher **January 2013–July 2015**
Harmony Public Schools **Euless and Fort Worth, TX**

Planning lessons and instructing the students
Advising and assessing student's abilities, strengths, and weaknesses (**Counseling**)
Participating to school duties, undertaking professional development
Organizing science fair and Olympiad
Modifying lessons depend on class size changes
Grading students' assignments and exams
Working with individual students to challenge them and to improve their abilities
Effective classroom teaching in terms of pedagogy

Education

Ph.D., Inorganic Chemistry 2019
Research Advisor: Thomas R. Cundari
University of North Texas, Denton

Department of Chemistry

Bachelor of Science, Chemistry 2011
Research Advisor: Omer Isildak
Gaziosmanpasa University, Tokat/TURKEY
College of Arts and Sciences

Certificate

State Board for Educator Certification (SBEC) Texas

Research Experiences

Cundari Lab (Ph.D.)
Designing and conducting theoretical calculation.
Modeling and DFT calculations of organometallic catalysts
Drug Design, Molecular Dynamics
DFT calculations of conversion olefin to primary alcohol, styrene and C-N compounds

Gieseking Lab (Postdoc)
Investigation of excited state dynamics
Theoretical approach to ligand effect on metal clusters
Modification of charge transfer

Research Publications

1. **Ceylan, Y. S.**; Cundari, T. R. "Computational Analysis of Potential Terminal Boride Complexes" *J. Phys. Chem. A*, **2017**, *121*, 9358-9368.
2. **Ceylan, Y. S.**; Cundari, T. R. "Comparison of Pd^{II} vs Rh^{I}-catalyzed Catalytic Cycle for Single Step Styrene Production" *Comp. Theor. Chem.* **2017**, *1115*, 313-322
3. Wang, G.; **Ceylan**, **Y. S**.; Cundari, T. R.; Dias, H. V. R. "Heterobimetallic Ag-Fe Complexes Involving $Fe(CO)_5$ Ligands" *JACS*, **2017**, *139*, 14292−14301
4. Parasar, D.; Almotawa, R. M.; Jayaratna, N. B.; **Ceylan**, **Y. S.**; Cundari, T. R.; Omary, M. A.; Dias, H. V. R. "Synthesis, Photophysical Properties, and Computational Analysis of di- and tetra-Nuclear Alkyne Complexes of Copper(I) Supported by a Highly Fluorinated Pyrazolate" *Organometallic*, **2018**, *37*, 4105−4118
5. **Ceylan, Y. S.**; Cundari, T. R. "Direct Anti-Markovnikov Addition of Water to Olefin to Synthesize Primary Alcohols: A Theoretical Study" *J. Phys. Chem. A*, **2019**, *123*, 958−965
6. **Ceylan, Y. S.**; Gieseking, R. L. M. "Electronic Effect of Hydride and Halide Substituted $Au_9(PH_3)_8^{3+}$ nanoclusters" *under review*, **2021**
7. **Ceylan, Y. S.**; Gieseking, R. L. M. "Real-time and Linear-Response TDDFT Studies on Silver Nanowire to Describe Dephasing Dynamics of the Plasmons" *Manuscript preparation*, **2021**
8. **Ceylan, Y. S.**; Gieseking, R. L. M. "INDO/S and TD-DFTB Analysis of the Bonding Dipole and Charge Transfer Plasmon Modes in the Silver Dimeric Clusters" *Manuscript preparation*, **2021**

Selected Conferences and Presentations:

Ceylan Y.; Cundari T. "Comparison of Pd^{II} vs Rh^{I}-Catalyzed Catalytic Cycle for Single Step Styrene Production" Oral Presentation at ACS South West Regional Meeting in Galveston, TX. **2016**
Ceylan Y.; Cundari T. ''Computational Analysis of Potential Terminal Boride Complexes'' Oral Presentation at ACS South West Regional Meeting in Lubbock, TX. **2017**
Ceylan Y.; Cundari T. ''Direct Anti-Markovnikov Addition of Water to Olefin to Synthesize Primary Alcohol: A Theoretical Study'' Oral Presentation at MiM Dallas-Fort Worth Section of ACS, TX. **2018**
Ceylan Y.; Cundari T. ''Direct Anti-Markovnikov Addition of Water to Olefin to Synthesize Primary Alcohol: A Theoretical Study'' Poster Presentation at Stone Symposium at Baylor Waco, TX. **2018**

Ceylan Y.; Cundari T. ‘’Direct Anti-Markovnikov Addition of Water to Olefin to Synthesize Primary Alcohol: A Theoretical Study’’ Oral Presentation at 256th ACS National Meeting & Exposition at Boston, MA. **2018**

Awards

Teacher of the year: Fort Worth, TX 2015
Outstanding student award: Tokat, TURKEY 2011

Travel Grants

College of Science Travel Grants for ACS National Meeting : Boston, TX 2018
College of Science Travel Grants for Stone Symposium: Waco, TX 2018
College of Science Travel Grants for ACS Regional Meeting: Lubbock, TX 2017
College of Science Travel Grants for ACS Regional Meeting: Galveston, TX 2016

Active Grants

IU/TACC (Jetstream): 50,000.0 SUs , IU/TACC Storage 200.0 GB , XSEDE Resource Allocations ($1,000.00)

Computer Skills

- Python
- Linux
- Microsoft Tools
- Gaussian 09
- ADF
- NWChem
- ChemCraft
- MOE
- Eduphoria
- HTML
- CCDC