





ARDA ATAKOL

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PROFILE

Arda is a research oriented academic whose studies are focused on molecular modeling and high-energy materials. He has an extensive background in planning, conducting, and supervising various performance tests for materials, product conformity assessment and internal auditing of testing laboratories.

Key Skills

- High energy materials
- Computational chemistry
- Laboratory accreditation practices
- Instrumental analysis
- Ad hoc troubleshooting
- Practical maintenance
- Product conformity assessment
- Quality management systems
- Fire safety

EXPERIENCE

Assistant Professor

April 2023 – Present

İstinye University Faculty of Pharmacy

- Conducts scientific studies on innovative approaches in analytical chemistry and computational chemistry methods.

Test Engineer - Reaction to Fire Specialist

June 2017 – April 2023

Turkish Standards Institute Construction Materials Fire and Acoustics Laboratory

- Worked as a team leader in a team of 9, responsible for all processes related to reaction to fire and flammability tests, within the scope of TS EN ISO / IEC 17025 accreditation,
- Conducted and supervised approximately 200 test requests per year for construction materials and approximately 100 per year for materials used in transportation vehicles,
- Responsible for product conformity assessment and NANDO approved laboratory services within the scope of TS EN ISO / IEC 17065 accreditation,
- Reduced the need for external resources considerably, through practical internal maintenance processes of complex test devices and on-site solutions specific to the emerging problem,
- He took part in internal examinations of experimental laboratories and in-laboratory trainings,
- Played a role in adapting 5S lean manufacturing workplace practices to laboratory processes.

Test Engineer - Assistant Specialist

July 2013 – June 2017

Turkish Standards Institute Construction Materials Fire and Acoustics Laboratory

- Key role in the founding team responsible for overseeing the construction and technical installments in the then newly established laboratory complex
- Involved in formation and documentation of the processes required for accreditation such as sample selection, compliance verification, method validation, test operations, maintenance, and waste management
- Gained hands-on experience in troubleshooting, practical repairs, and detailed maintenance of instruments
- Helped develop the sustainable basis for reaction to fire testing routines and directly planned and conducted the tests on materials of construction, aircrafts, railroad vehicles and marine vessels
- Submitted a thesis on the reaction to fire characteristics of thermoplastic and thermosetting polymers that are frequently used as products of construction, and their effects on overall fire safety of buildings

EXPERIENCE – continued

Student Assistant

February 2013 – July 2013

Hacettepe University Faculty of Pharmacy Department of Analytical Chemistry

- Analytical chemistry laboratory courses and recitation sessions

Summer Student

July 2009 – August 2009

Technical University of Darmstadt Department of Material and Earth Sciences

- As a researcher assistant, participated in a study concerning Tin (II) oxide as an alternative mechanical support material for PEM fuel cell catalysts
- Synthesized and conducted surface characterization and performance tests of the resulting fuel cells

EDUCATION

Doctor of Philosophy (PhD) in Chemistry

2015 – 2020

Ankara University Department of Chemistry

- Synthesis of novel high energy NNN-pyrazolyl-pyridine Silver (I) complexes and the experimental and theoretical investigation of their thermal decomposition behavior

Master of Science (MS) in Chemistry

2012 – 2015

Ankara University Department of Chemistry

- Experimental and theoretical investigation of the effect of second metal ion in hetero nuclear Schiff base complexes

Bachelor of Science (BS) in Chemistry

2005 – 2012

Middle East Technical University Department of Chemistry

- Cold vapor formation in aqueous medium – Studies on inorganic mercury determination by using CVAAS

SCIENTIFIC PUBLICATIONS

1. New Energetic Silver(I) Complexes With NNN Type Pyrazolylpyridine Ligands And Oxidizing Anions
Atakol A, Svoboda I, Dal H, Atakol O, Nazir H
Journal of Molecular Structure
2020; 1210, 128001
2. Synthesis, crystal structure, theoretical calculations and thermal characterization of two heterodinuclear NiII–ZnII complexes prepared from ONNO-type symmetrical Schiff base and its reduced derivative
Atakol A, Nazir H, Svoboda I, Aksu ML, Atakol O
Journal of Thermal Analysis and Calorimetry
2019; 139, 1863-1882
3. Synthesis, Thermal Kinetic Analysis and DFT Calculations of Pyrazine and Pyridine Complexes of Copper(II) Thiocyanate
Nazir H, Atakol A, İnal EK, Acar N, Emir E, Atakol O
Süleyman Demirel University Journal of Natural and Applied Sciences
2018; 22(2), 499-510
4. Investigation of energetic materials prepared by reactions of diamines with picryl chloride
Atakol M, Atakol A, Ozler Yigiter A, Svoboda I, Atakol O
Journal of Thermal Analysis and Calorimetry
2016; 127, 1931-1940

SCIENTIFIC PUBLICATIONS – continued

5. An experimental and theoretical study toward the synthesis, structure and thermal decomposition of some phenyl tetrazoles
Yılmaz N, Öz S, Atakol A, Svoboda I, Aydinler B, Akay MA, Atakol O
Journal of Thermal Analysis and Calorimetry
2015; 119 (3), 2321-2328
6. Effect of phosphorus-enriched biochar and poultry manure on growth and mineral composition of lettuce (*Lactuca sativa* L. cv.) grown in alkaline soil.
Gunes A, Inal A, Taskin MB, Sahin O, Kaya EC, Atakol A.
Soil Use and Management
2014; 30, 182-188
7. Investigation of heavy metal concentrations in some Turkish wines.
Alkış İM, Öz S, Atakol A, Yılmaz N, Anlı RE, Atakol O
Journal of Food Composition and Analysis
2014; 33 (1), 105-110
8. Synthesis, crystal structure, chromatographic separation, and thermogravimetric investigation of a ONNO type asymmetric Schiff base and its trinuclear complexes
Öz S, Ergun Ü, Yakut M, Svoboda I, Atakol A, İnal EK, Yılmaz N, Atakol O
Russian Journal of Coordination Chemistry
2014; 40 (8), 571-582
9. Liquid-liquid extraction based simple trans-resveratrol analysis in wine samples
İnal EK, Öz S, Atakol A, Akay MA, Atakol O
SDU Journal of Science (E-Journal)
2013; 8(1), 114-121
10. The effect of o-substituents on mass spectra of Schiff bases synthesized from salicylaldehyde
Denizli G, Öz S, Atakol A, İnal EK, Akay MA
SDU Journal of Science (E-Journal)
2013; 8(1), 106-113

CONFERENCE APPEARANCES

1. Theoretical analysis of fragment contribution of nitrogen-rich ligands and bridge-forming co-ligands to molecular orbitals of energetic materials
Atakol A, Nazir H
3rd Joint Science Congress of Materials and Polymers
2019, Pristina
2. Pyrazolyl-Pyridine Derivatives as Ligand for Energetic Materials: A Theoretical Study
Atakol A, Nazir H
International Chemistry & Biology Conference'18
2018, Sharm-El-Sheikh
3. Experimental and theoretical approach towards the explanation of redox potentials of a Ni-Zn hetero-nuclear complex
Atakol A, Nazir H
9th Aegean Analytical Chemistry Days
2014, Chios

CONFERENCE APPEARENCES – continued

4. The investigation of energetic materials prepared from diamines and picryl chloride by liquid chromatography and thermal analysis methods
Kunduracı Atakol M, Atakol A, Özler Yiğiter A, Nazır H, Özkaramete E, Atakol O
9th Aegean Analytical Chemistry Days
2014, Chios
5. The investigation of nitrogen rich hetero-ringed energetic materials having picryl group by liquid chromatography and thermal analysis methods
Özler Yiğiter A, Kunduracı Atakol M, Atakol A, Akay MA, İnal EK, Atakol O
9th Aegean Analytical Chemistry Days
2014, Chios
6. Thermoanalytical investigation of new phenyl tetrazoles
Yılmaz N, Atakol A, Kunduracı M, Akay MA, Atakol O
6th Black Sea Basin Conference on Analytical Chemistry
2013, Trabzon
7. Investigation of energetic benzaldoximes with thermoanalytical and computational methods
Atakol A, Kunduracı M, Özkaramete E, Yılmaz N, Atakol O, Akay MA
4th EuChemS Chemistry Congress
2012, Prague
8. Gıda örneklerinde ICPMS ile bor tayini
Karaman G, Atakol A, Bora S, Njie N, Yıldırım E, Bakırdere S, Ataman OY
XI. Ulusal Spektroskopi Kongresi
2009, Ankara