

Assoc. Prof. ABDULLAH ÖZKANLAR

Personal Information

Office Phone: [+90 352 207 6666](tel:+903522076666) Extension: 33139

Email: aozkanlar@erciyes.edu.tr

Web: <https://avesis.erciyes.edu.tr/aozkanlar>

International Researcher IDs

ORCID: 0000-0003-4634-0468

Yoksis Researcher ID: 219067

Education Information

Post Doctorate, Max Planck Society, Fritz Haber Institute (Fhi), Theory, Germany 2014 - 2015

Post Doctorate, Washington State University, Faculty Of Science, Physical Chemistry, United States Of America 2010 - 2014

Doctorate, Purdue University, Faculty Of Science, Physics, United States Of America 2003 - 2010

Postgraduate, Bogazici University, Fen Bilimleri, Fizik, Turkey 2001 - 2003

Undergraduate, Bogazici University, Faculty Of Arts And Sciences, Fizik, Turkey 1996 - 2001

Foreign Languages

English, C1 Advanced

Dissertations

Doctorate, Spin Dependent Ligand Binding Reactions of Iron-Containing Complexes and Proteins, Purdue University, Faculty Of Science, Physics, 2010

Postgraduate, Representations of $SL_q(2,R)$ Quantum Groups, Boğaziçi Üniversitesi, Fen Bilimleri, Fizik, 2003

Research Areas

Basic Sciences, Physics, Atomic and Molecular Physics, Theory of Atoms and Molecules, Interdisciplinary Physics and Related Science and Technology Areas, Physical Chemistry

Academic Titles / Tasks

Associate Professor, Erciyes University, Fen Fakültesi, Fizik, 2019 - Continues

Assistant Professor, Erciyes University, Fen Fakültesi, Fizik, 2018 - 2019

Assistant Professor, Erciyes University, Fen Fakültesi, Fizik, 2016 - 2018

Lecturer PhD, Kadir Has University, Faculty Of Engineering And Natural Sciences, Biyoinformatik Ve Genetik Bölümü, 2015 - 2016

Research Assistant PhD, Washington State University, Faculty Of Science, Chemistry Department, 2010 - 2014

Research Assistant, Purdue University, Faculty Of Science, Physics Department, 2003 - 2010

Research Assistant, Bogazici University, Fen Edebiyat Fakültesi, Fizik Bölümü, 2001 - 2003

Academic and Administrative Experience

Head of Department, Erciyes University, Fen Fakültesi, Fizik, 2021 - Continues

Courses

PHYSICS-II, Undergraduate, 2017 - 2018

Fizik-II, Undergraduate, 2017 - 2018

PHYSICS-I, Undergraduate, 2017 - 2018

Fizik-I, Undergraduate, 2017 - 2018

Kuantum Mekaniği-I, Postgraduate, 2016 - 2017

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Intermolecular interactions in binary mixtures of formamide and acetone**
ÖZKANLAR A.
Fluid Phase Equilibria, vol.560, 2022 (SCI-Expanded)
- II. **Intermolecular interaction network in liquid acetone**
ÖZKANLAR A.
FLUID PHASE EQUILIBRIA, vol.553, 2022 (SCI-Expanded)
- III. **Structure of the Hydrogen-Bond Network in Binary Mixtures of Formamide and Methanol**
ÖZKANLAR A.
Journal of Solution Chemistry, vol.50, pp.257-276, 2021 (SCI-Expanded)
- IV. **Structural properties of hydrogen-bond network in liquid formamide-water mixtures**
ÖZKANLAR A.
FLUID PHASE EQUILIBRIA, vol.456, pp.98-108, 2018 (SCI-Expanded)
- V. **Towards a unified description of the hydrogen bond network of liquid water: A dynamics based approach**
Ozkanlar A., ZHOU T., CLARK A. E.
JOURNAL OF CHEMICAL PHYSICS, vol.141, no.21, 2014 (SCI-Expanded)
- VI. **ChemNetworks: A Complex Network Analysis Tool for Chemical Systems**
Ozkanlar A., Clark A. E.
JOURNAL OF COMPUTATIONAL CHEMISTRY, vol.35, no.6, pp.495-505, 2014 (SCI-Expanded)
- VII. **Water Organization and Dynamics on Mineral Surfaces Interrogated by Graph Theoretical Analyses of Intermolecular Chemical Networks**
Ozkanlar A., Kelley M. P., Clark A. E.
MINERALS, vol.4, no.1, pp.118-129, 2014 (SCI-Expanded)
- VIII. **Modulation of hydride formation energies in transition metal doped Mg by alteration of spin state**
Ozkanlar A., Samuels A., Clark A. E.
CHEMICAL PHYSICS LETTERS, vol.560, pp.10-14, 2013 (SCI-Expanded)
- IX. **Sensitivity of the properties of ruthenium "blue dimer" to method, basis set, and continuum model**
Ozkanlar A., Clark A. E.
JOURNAL OF CHEMICAL PHYSICS, vol.136, no.20, 2012 (SCI-Expanded)
- X. **"Covalent Hydration" Reactions in Model Monomeric Ru 2,2 '-Bipyridine Complexes: Thermodynamic Favorability as a Function of Metal Oxidation and Overall Spin States**
Ozkanlar A., Cape J. L., Hurst J. K., Clark A. E.

Articles Published in Other Journals

- I. **Billiard Physics: Motion of a Cue Ball after Hit by a Cue Stick Horizontally**
ÖZKANLAR A.
The Physics Educator, vol.2, no.1, 2020 (Scopus)

Refereed Congress / Symposium Publications in Proceedings

- I. **Temperature Dependent Structure of Intermolecular Interaction Network in Liquid Formamide**
Özkanlar A., Al-Hadeethi O. J. S.
Turkish Physical Society 38th International Physics Congress, Muğla, Turkey, 31 August - 04 September 2022, vol.04, no.2, pp.19-25
- II. **Role of Spin Transitions on the Binding Rate of Peroxynitrite [OONO-] to Iron(III) 5,10,15,20-Tetrakis (N-Methyl-4-Pyridyl) Porphyrin [Fe(III)TMPyP]**
Özkanlar A., Rodriguez J. H.
Turkish Physical Society 38th International Physics Congress, Muğla, Turkey, 31 August - 04 September 2022, pp.56
- III. **Hydrogen-Bonding Network of Solvent Water About Cobalt Oxide Water Oxidation Catalysts: Structural and Dynamical Properties**
Özkanlar A.
Turkish Physical Society 33rd International Physics Congress, Muğla, Turkey, 6 - 10 September 2017, pp.243
- IV. **Building Water Microstates: A Multilayered Approach**
Özkanlar A.
Turkish Physical Society 33rd International Physics Congress, Muğla, Turkey, 6 - 10 September 2017, pp.223
- V. **Implications of Solvent Organization Upon Covalent Hydration of Bipyridine in [(NH₃)₃(bpy)Ru=O]³⁺**
Özkanlar A., Clark A. E.
10th Congress on Electronic Structure: Principles and Applications, Castello, Spain, 28 June - 01 July 2016, pp.303-304
- VI. **Interfacial chemistry viewed through the lens of network analysis**
CLARK A. E., ÖZKANLAR A., KELLEY M. P.
Goldschmidt Conference 2013, Florence, Italy, 25 - 30 August 2013, pp.893
- VII. **Buyer beware: Pitfalls and challenges when studying water oxidation chemistry using DFT**
CLARK A. E., ÖZKANLAR A.
242nd ACS National Meeting & Exposition, Denver, Colorado, United States Of America, 28 August - 01 September 2011, pp.545
- VIII. **Water addition reactions in model monomeric Ru 2,2'-bipyridine complexes involving "Covalent Hydration" of bipyridine ligand: Thermodynamic favorability and spectroscopic signatures as a function of metal oxidation and overall spin states**
ÖZKANLAR A., CAPE J. L., HURST J. K., CLARK A. E.
242nd ACS National Meeting & Exposition, Denver, Colorado, United States Of America, 28 August - 01 September 2011, pp.190
- IX. **Computational Electronic Structure and Spin Forbidden Reactivity of Iron Tetracarbonyl Complexes**
ÖZKANLAR A., Rodriguez J. H.
42nd Midwest Theoretical Chemistry Conference, West Lafayette, Indiana, United States Of America, 20 - 22 May 2010, pp.24
- X. **pH-dependent electronic structure and computed Raman activity of the {FeNO}₆ active site of the**

heme protein nitrophorin-4

Rodriguez J. H., ÖZKANLAR A., Yue Y., Deligkaris C.

239th ACS National Meeting & Exposition, San Francisco, California, United States Of America, 21 - 25 March 2010, pp.263

- XI. **Electronic structure and reactivity of iron tetracarbonyl complexes**
ÖZKANLAR A., Rodriguez J. H.
238th ACS National Meeting, Washington, Dc, United States Of America, 16 - 20 August 2009, pp.118
- XII. **Ab-Initio Based Computation of Rate Constants of Spin Forbidden Transitions in (Bio)inorganic Complexes and Metalloproteins**
ÖZKANLAR A., Rodriguez J. H.
2009 APS March Meeting, Pittsburgh, Pennsylvania, United States Of America, 16 March 2009, pp.40
- XIII. **Ab-Initio Based Computation of Rate Constants for Spin Forbidden Metalloprotein-Substrate Reactions**
ÖZKANLAR A., Rodriguez J. H.
2007 APS March Meeting, Denver, Colorado, United States Of America, 5 - 09 March 2007

Metrics

Publication: 24

Citation (WoS): 94

Citation (Scopus): 3

H-Index (WoS): 5

H-Index (Scopus): 1