## Prof. EROL EROĞLU

#### **Personal Information**

Office Phone: <u>+90 242 310 6078</u> Email: eeroglu@akdeniz.edu.tr

Web: https://avesis.akdeniz.edu.tr/eeroglu

Address: Akdeniz Üniversitesi, Eğitim Fakültesi, Matematik ve Fen Bilimleri Bölümü, Dunlupinar Bulvarı 07058 ANTALYA

### **Education Information**

Post Doctorate, University of Missouri-St.Louis, Department Of Chemistry And Biochemistry, Center For Nanoscience, United States Of America 2012 - 2012

Doctorate, University of Wales, Swansea, Faculty Of Science, Physics Department, United Kingdom 1994 - 2000 Undergraduate, Cukurova University, Fen Edebiyat Fakültesi, Fizik Bölümü, Turkey 1985 - 1992

### Foreign Languages

English, B2 Upper Intermediate

## Certificates, Courses and Trainings

Education Management and Planning, Öğretmenlik Sertifikası, Çukurova Üniversitesi, Eğitim Fakültesi, 1992

#### **Dissertations**

Doctorate, Analytical Raman Spectroscopy Applied To Compounds of Medical and Biological Importance, University of Wales, Swansea, Graduate School , Physics Department, 2000

#### **Research Areas**

Physics, Atomic and Molecular Physics, Theory of Atoms and Molecules, Atomic and Molecular Interactions, Molecular Properties and Interactions with Photon, Natural Sciences

## **Academic Titles / Tasks**

Associate Professor, Akdeniz University, Faculty of Education, İlköğretim, 2013 - Continues Assistant Professor, Akdeniz University, Faculty of Education, İlköğretim, 2011 - 2013 Assistant Professor, Harran University, Fen Edebiyat Fakültesi, Fizik, 2001 - 2011 Research Assistant PhD, Harran University, Fen Edebiyat Fakültesi, Fizik, 2000 - 2001 Research Assistant, Harran University, Fen Edebiyat Fakültesi, Fizik, 1993 - 2000

#### **Courses**

Bilgisayar Tabanlı İlaç Tasarım Teknikleri, Postgraduate, 2019 - 2020

Öğretmenlik Uygulaması, Undergraduate, 2019 - 2020

Genel Fizik II, Undergraduate, 2019 - 2020

Genel Fizik I, Undergraduate, 2019 - 2020

Okul Deneyimi, Undergraduate, 2019 - 2020

Moleküler Modelleme Teknikleri, Postgraduate, 2019 - 2020

# **Advising Theses**

EROĞLU E., PISA 2015 Türkiye Uygulamasında Bazı Öğrenci Değişkenlerinin Fen Okuryazarlığı ve Okuma Becerileri Başarısına Etkisinin İncelenmesi, Postgraduate, S.ULUĞ(Student), 2019

EROĞLU E., Bazı Değişkenlerin Fen Başarı Puanına Etkisi: PISA 2015 Türkiye, Singapur ve Almanya Örneği, Postgraduate, F.DEMİREZ(Student), 2019

EROĞLU E., Fen bilgisi ve Türkçe Öğretmen Adaylarının Ekolojik Ayak İzi Farkındalık Düzeylerinin Belirlenmesi, Postgraduate, Ş.SİVRİKAYA(Student), 2018

EROĞLU E., PISA 2015 Türkiye Verilerine Göre Bazı Değişkenlerin Fen Testi Başarı Puanına Etkisinin Kantil Regresyon Yöntemi İle İncelenmesi, Postgraduate, A.TONGAL(Student), 2017

EROĞLU E., İlköğretim 5. Sınıf Yer Kabuğunun Gizemi Ünitesinde Kavram Karikatürü Kullanımının Öğrenci Başarısına Etkisi, Postgraduate, M.KARA(Student), 2017

EROĞLU E., Fen bilgisi ve sınıf öğretmen adaylarının öğretmenlik mesleğine yönelik tutumlarının incelenmesi, Postgraduate, Y.ÖZKAN(Student), 2017

EROĞLU E., Measurement of Optical Properties of Some Cu and Co Complexes Using Spectroscopic Ellipsometry, Postgraduate, C.ÖZAYDIN(Student), 2007

EROĞLU E., An Investigation of Biological Activity of Sulfonamide Compounds By QSAR, Postgraduate, S.GÜLER(Student), 2005

EROĞLU E., Calculations of Vibrational spectrum of Benzimidazole and Phenylsilane using Ab Initio and DFT methods, Postgraduate, M.TEKPINAR(Student), 2004

## Published journal articles indexed by SCI, SSCI, and AHCI

I. Effects of Angiotensin 1-7 Binding on the Dynamics of Human MAS Proto-Oncogene, GPCR: A Molecular Dynamics Study

YAŞAR E., Murat Yasar M., Dogru S., YARAŞ N., EROĞLU E.

Journal of Computational Biophysics and Chemistry, vol.22, no.6, pp.627-644, 2023 (SCI-Expanded)

II. DFT based QSARs for inhibitory activity of coumarins towards tumor-associated isoform (CA XII) of carbonic anhydrases

Yorulmaz N., EROĞLU E.

JOURNAL OF MOLECULAR STRUCTURE, vol.1208, 2020 (SCI-Expanded)

III. Development of Quantitative Structure-Property Relationship (QSPR) Models of Aspartyl-Derivatives Based on Eigenvalues (EVA) of Calculated Vibrational Spectra

Cam I. B., YORULMAZ N., YAŞAR M. M., EROĞLU E.

FOOD BIOPHYSICS, vol.14, no.3, pp.300-312, 2019 (SCI-Expanded)

IV. DFT-based QSAR modelling of selectivity and inhibitory activity of coumarins and sulfocoumarins against tumor-associated carbonic anhydrase isoform IX
EROĞLU E.

COMPUTATIONAL BIOLOGY AND CHEMISTRY, vol.80, pp.307-313, 2019 (SCI-Expanded)

V. DFT-based QSAR Modelling of Inhibitory Activity of Coumarins and Sulfocoumarins on Carbonic

Anhydrase (CA) Isoforms (CA I and CA II)

EROĞLU E.

CURRENT COMPUTER-AIDED DRUG DESIGN, vol.15, no.3, pp.243-251, 2019 (SCI-Expanded)

VI. Development of selective QSAR models and molecular docking study for inhibitory activity of sulfonamide derivatives against carbonic anhydrase isoforms II and IX

Yorulmaz N., Oltulu O., EROĞLU E.

JOURNAL OF MOLECULAR STRUCTURE, vol.1163, pp.270-279, 2018 (SCI-Expanded)

VII. Zinc(II) Complexes of Acetophenone and 5-Chloro-2-hydroxy-benzophenone Thiosemicarbazones. Synthesis, Characterization, and Nonlinear Optical Properties from Quantum Chemical Calculations Turkkan B., ÜLKÜSEVEN B., EROĞLU E.

PHOSPHORUS SULFUR AND SILICON AND THE RELATED ELEMENTS, vol.190, no.1, pp.53-65, 2015 (SCI-Expanded)

VIII. A new vibrational study of Acetazolamide compound based on normal coordinate analysis and DFT calculations

Brandan S. A., Eroglu E., Ledesma A. E., Oltulu O., Yalcinkaya O. B.

JOURNAL OF MOLECULAR STRUCTURE, vol.993, no.1-3, pp.225-231, 2011 (SCI-Expanded)

IX. Investigation of anisotropic thermal conductivity of uniaxial and biaxial Gay-Berne particles with molecular dynamics simulation

Yildirim A., Eroglu E., Yilmaz S.

MOLECULAR SIMULATION, vol.37, no.14, pp.1179-1185, 2011 (SCI-Expanded)

X. Structural studies of complex compounds of 6,6 '-diacetyl-2,2 '-bipyridine dioxime with copper(I/II), platinum(II), and palladium(II) metal ions

Sengul A., Agac H., Coban B., Eroglu E.

TURKISH JOURNAL OF CHEMISTRY, vol.35, no.1, pp.25-36, 2011 (SCI-Expanded)

XI. A QSAR study on relationship between structure of sulfonamides and their carbonic anhydrase inhibitory activity using the eigenvalue (EVA) method

Oltulu O., Yasar M. M., Eroglu E.

EUROPEAN JOURNAL OF MEDICINAL CHEMISTRY, vol.44, no.9, pp.3439-3444, 2009 (SCI-Expanded)

XII. Syntesis, Crystallographic Structure and Semiempirical Studies of a Novel Complexes of Uranyl(VII). Tek A. A., Celik O., Ulusoy M., Iskeleli N. O., Eroglu E., Tas E.

ACTA CRYSTALLOGRAPHICA A-FOUNDATION AND ADVANCES, vol.65, 2009 (SCI-Expanded)

XIII. Some QSAR studies for a group of sulfonamide Schiff base as carbonic anhydrase CA II inhibitors Eroglu E.

INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES, vol.9, no.2, pp.181-197, 2008 (SCI-Expanded)

XIV. Comparative QSTR study using semi-empirical and first principle methods based descriptors for acute toxicity of diverse organic compounds to the fathead minnow

Eroglu E., Palaz S., Oltulu O., Turkmen H., Ozaydin C.

INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES, vol.8, no.12, pp.1265-1283, 2007 (SCI-Expanded)

XV. A DFT-based quantum theoretic QSAR study of aromatic and heterocyclic sulfonamides as carbonic anhydrase inhibitors against isozyme, CA-II

Eroglu E., Tuerkmen H.

JOURNAL OF MOLECULAR GRAPHICS & MODELLING, vol.26, no.4, pp.701-708, 2007 (SCI-Expanded)

### Articles Published in Other Journals

I. A QSPR Study for the Prediction of the pKa of N-Base Ligands and Formation Constant Kc of Bis(2,2-bipyridine)Platinum(II)-N-Base Adducts Using QuantumMechanically Derived Descriptors PALAZ S., TÜRKKAN B., EROĞLU E.

ISRN Physical Chemistry, vol.2012, pp.1-11, 2012 (Peer-Reviewed Journal)

# Refereed Congress / Symposium Publications in Proceedings

I. QSAR, Molecular Docking and Design Study of Phenylalkylamines as 5-HT2A Receptor Aganist Ligands

YILMAZ I., AKYOL S. F., KAYNAR E., EROĞLU E.

7th International BAU Drug Design Congress, İstanbul, Turkey, 19 - 21 December 2019, pp.67

II. Isozyme Selective QSAR Models of Carbonic Anhydrases with Non-classical Inhibitors, Coumarins and Sulfocoumarins

EROĞLU E.

6th International BAU Drug Design Congress, İstanbul, Turkey, 13 - 15 December 2018, pp.135

III. An Investigation Of Substitution And Solvent Effects On Intramolecular Proton Transfer In Fluorophenylderivatives Of (z)-2,4-di-tert-butyl-6-((phenyl)imino)methyl)phenol By Means Of Spectroscopic Measurements And Quantum Chemistry Calculations

EROĞLU E., KANCI BOZOĞLAN B., YORULMAZ N., ŞENGÜL A.

III.International Turkish Congress on Molecular Spectroscopy, Muğla, Turkey, 26 - 29 August 2017

IV. Use of EVA Descriptor to Construct Linear QSAR Model for Determining Inhibitory Activity of Sulfonamides against Carbonic Anhydrase and Sweetness Index of Aspartame Derivatives EROĞLU E., YORULMAZ N., OLTULU O., YASAR M. M., ÇAM I. B.

III. International Turkish Congress on Molecular Spectroscopy, Muğla, Turkey, 26 - 29 August 2017, pp.155

V. An Investigation of Substitution and Solvent Effects on Intramolecular Proton Transfer in Fluorophenyl Derivatives of (Z)-2,4-di-tert-butyl-6 (((phenyl)imino)methyl)phenol by Means of Spectroscopic Measurements and Quantum Chemistry Calculations EROĞLU E., KANCI B., YORULMAZ N., SENGUL A.

III. International Turkish Congress on Molecular Spectroscopy, Muğla, Turkey, 26 - 29 August 2017, pp.293

VI. Use of EVA Descriptor to Construct Linear QSAR Model for Determining Inhibitory Activity of Sulfonamides against Carbonic Anhydrase and Sweetness Index of Aspartame Derivatives EROĞLU E., Yorulmaz N., Oltulu O., Yaşar M. M., ÇAM İ. B.

3rd International Turkish Congress on Molecular Spectroscopy (TURCMOS 2017), Muğla, Turkey, 26 - 29 August 2017, vol.1, no.1, pp.155

VII. A QSAR Study Of Inhibitory Activity Of Coumarins And Sulfocoumarins Derivatives Against Tumor-Associated Carbonic Anhydrase Isoforms IX And XII

BOYLUĞ Z. E., UNAN H., TEKPINAR M., EROĞLU E.

3rd International BAU Drug Design Congress, İstanbul, Turkey, 1 - 03 October 2015, pp.186

VIII. Effect of Fluoro- and Chloro- substitution of the Phenyl Ring on Enol-keto Tautomeric equilibriums of 2,4-di-tert-butyl-6-(Z)-[(2,5-fluorophenyl or 2,5- Chlorophenyl)imino]Methyphenol: A Spectroscopic and DFT Study

EROĞLU E., YORULMAZ N., BOYLUĞ Z. E., YASAR M. M.

II. International Turkish Congress on Molecular Spectroscopy, Antalya, Turkey, 13 - 18 September 2015, pp.212

IX. An Investigation of Keto-enol Tautomerism in 2,4-di-tert-butyl-6- {(Z)-[(2-or 4-fluorophenyl)imino]methy}Phenol by Spectroscopic and Quantum Chemical Calculation Methods KILIÇ M., EROĞLU E., ÇAM İ. B., TONGUR T.

TURCMOS 2015 II.International Turkish Congress on Molecular Spectroscopy, Antalya, Turkey, 13 - 18 September 2015, pp.211

X. An Investigation of Keto-enol Tautomerism in 2,4-di-tert-butyl-6-(Z)-[(2-or 4- fluorophenyl)imino] methyphenol by Spectroscopic and Quantum Chemical Calculation Methods EROĞLU E., KILIÇ M., ÇAM İ. B., TONGUR T.

TURCMOS 2015 2.International Turkish Congress on Molecular Spectroscopy, Antalya, Turkey, 13 - 18 September 2015, pp.211

XI. An Investigation of Keto-enol Tautomerism in 2,4-di-tert-butyl-6-(Z)-[(2-or 4- fluorophenyl)imino] methyphenol by Spectroscopic and Quantum Chemical Calculation Methods

KILIÇ M., EROĞLU E., ÇAM İ. B., TONGUR T.

TURCMOS 2015 2.International Turkish Congress on Molecular Spectroscopy, Antalya, Turkey, 13 - 18 September 2015, pp.211

XII. An Investigation of Keto-enol Tautomerism in 2,4-di-tert-butyl-6- {(Z)-[(2-or 4-fluorophenyl)imino]methy}Phenol by Spectroscopic and Quantum Chemical Calculation Methods EROĞLU E., KILIÇ M., ÇAM İ. B., TONGUR T.

II. International Turkish Congress on Molecular Spectroscopy, Antalya, Turkey, 13 - 18 September 2015, pp.211

XIII. Molecular Modelling Approach To Rationale The Inhibitory Activity of Derivatives of Coumarin
Against Carbonic Anhydrase Isoform II

BOYLUĞ Z. E., UNAN H., TEKPINAR M., EROĞLU E.

11 th INTERNATIONAL SYMPOSIUM ON PHARMACEUTICAL SCIENCES (ISOPS 10th), Ankara, Turkey, 9 - 12 June 2015, pp.63-64

XIV. An Experimental and DFT Study on 1.3-Bis(2-(2-hydroxybenzylideneamino) phenoxy)propane: Vivrational Analysis and Solvent Effect on Prototropic Tautomerism

Arı H., BİLGE S., KAMBUR ÇAVUŞ H., EROĞLU E.

International Turkish Congress on Molecular Spectroscopy (TURCMOS 2013), İstanbul, Turkey, 15 - 20 September 2013, pp.183

XV. Some QSAR Studies of Indole-5 Sulfonamides, Phenacetyl-, Pyridylacetyl- and Thienylaecetyl Substituted Aromatic Sulfonamides with Carbonic Anhydrase (CAII and CAIX) Isozymes Inhibitory Activity

PALAZ S., MURATOVIC S., EROĞLU E.

 $10\ th\ INTERNATIONAL\ SYMPOSIUM\ ON\ PHARMACEUTICAL\ SCIENCES\ (ISOPS\ 10th),\ Ankara,\ Turkey,\ 26-29\ June\ 2012,\ pp.106$ 

XVI. First QSAR Study of Coumarins as Carbonic Anhydrase (CAII and CAIX) Isozymes Inhibitors MURATOVIC S., PALAZ S., EROĞLU E.

10 th INTERNATIONAL SYMPOSIUM ON PHARMACEUTICAL SCIENCES (ISOPS 10th), Ankara, Turkey, 26 - 29 June 2012, pp.105

XVII. DFT-Based QSAR Study of Inhibition of Carbonic Anhydrase Isoforms (CAI, CAII and CAIX) by Sulfonamides

EROĞLU E.

Chemical Physics Congress IX, İzmir, Turkey, 14 - 16 October 2010, pp.8

XVIII. Vibrational and Structural Study of 6,6-diacetyl-2,2 -bipyridine dioxime Using FT-IR, Raman and Quantum Chemical Calculations

Şengül A., EROĞLU E.

EUCMOS 2010 30th European Comgress on Molecular Spectroscopy, Florence, Italy, 29 August - 03 September 2010

XIX. Comparison of Validated QSTR Models Based on Descriptors From AM1 PM3 HF and DFT Calculations for Acute Toxicity of Diverse Organic Compounds to The Fathead Minnow PALAZ S., YAŞAR M. M., OLTULU O., EROĞLU E.

CMTPI 2009: Fifth International Sympoium on Computational Methods in Toxicology and Pharmacology Integrating Internet Resources, İstanbul, Turkey, 4 - 08 July 2009

### **Metrics**

Publication: 36 Citation (WoS): 163 Citation (Scopus): 174 H-Index (WoS): 6 H-Index (Scopus): 7