

## Prof. EROL EROĞLU

### Personal Information

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### 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. **Synthesis, 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-HT<sub>2A</sub> Receptor Against 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 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 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 İ. 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]methyl}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: Vibrational 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 Thienylacetyl 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 Congress 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 Symposium on Computational Methods in Toxicology and Pharmacology Integrating Internet Resources, İstanbul, Turkey, 4 - 08 July 2009

## Metrics

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