

Prof. FATMA SEVİN DÜZ

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Education Information

Doctorate, Hacettepe Üniversitesi, Fen Fakültesi, Kimya, Turkey 1990 - 1995

Postgraduate, Hacettepe University, Fen Bilimleri Enstitüsü, Kimya A.B.D., Turkey 1986 - 1989

Undergraduate, Hacettepe University, Fen Fakültesi, Kimya Bölümü, Turkey 1982 - 1986

Research Areas

Carbon Chemistry, Photochemistry of Organics, Organic Reaction Mechanisms, Organometallics

Academic Titles / Tasks

Professor, Hacettepe Üniversitesi, Fen Fakültesi, Kimya Bölümü, 2004 - Continues

Professor, Hacettepe Üniversitesi, Fen Bilimleri Enstitüsü, 2012 - 2016

Associate Professor, Hacettepe Üniversitesi, Fen Fakültesi, Kimya Bölümü, 1998 - 2004

Assistant Professor, Hacettepe Üniversitesi, Fen Fakültesi, Kimya Bölümü, 1996 - 1998

Academic and Administrative Experience

Head of Department, Hacettepe University, Fen Fakültesi, Kimya Bölümü, 2020 - Continues

University Executive Board Member, Hacettepe University, Fen Fakültesi, Kimya Bölümü, 2013 - 2016

Hacettepe Üniversitesi, Fen Bilimleri Enstitüsü, 2012 - 2016

Fakülte Akademik Kurul Üyesi, Hacettepe University, Fen Fakültesi, Kimya Bölümü, 2009 - 2012

Deputy Head of Department, Hacettepe University, Fen Fakültesi, Kimya Bölümü, 2002 - 2005

Advising Theses

Sevin Düz F., Yeni tasarlanmış ferrosenil üre benzimidazol sensörlerinin metal, redoks ve fotokimyasal özelliklerinin DFT metodu ile incelenmesi, Postgraduate, F.ŞİMŞEK(Student), 2018

Sevin Düz F., HgY ve AgY zeolitlerine adenin ve timin bazlarının adsorpsiyonunun teorik çalışması, Postgraduate, Ö.KINIK(Student), 2018

Sevin Düz F., Metal iyonlarına duyarlı yeni tasarlanmış ferrosenil tiyazol benzimidazol sensörün teorik olarak incelenmesi, Postgraduate, M.ALŞAN(Student), 2018

SEVİN DÜZ F., Yeni tasarlanan benzimidazol temelli metal-aracılı DNA-baz çiftlerinin floresans özelliklerinden yararlanarak mantık kapılarının dft yöntemi ile teorik incelenmesi, Doctorate, M.ASGHARI(Student), 2016

SEVİN DÜZ F., Theoretical investigation of structural and electronic properties of some transition metal ansa complexes,

Doctorate, D.YÜKSEL(Student), 2013

SEVİN DÜZ F., HfCl₄ ile atomik karbon reaksiyonlarının deneysel ve teorik incelenmesi, Postgraduate, H.DİBEK(Student), 2012

SEVİN DÜZ F., Computer aided drug design study of cyclin dependent kinase 2 (CDK2) inhibitors, Doctorate, A.ECE(Student), 2011

SEVİN DÜZ F., Karbon ark yöntemi ile tungsten metalofulleren ve türevlerinin deneysel ve teorik incelenmesi, Postgraduate, E.DÜĞME(Student), 2010

SEVİN DÜZ F., Molecular modelling studies of TRPV1 receptor antagonists, Doctorate, T.TAŞKIN(Student), 2010

SEVİN DÜZ F., An experimental investigation on heavy metal adsorption onto dye-loaded zeolite Y, Doctorate, M.ABDUL(Student), 2009

SEVİN DÜZ F., A theoretical investigation on the adsorption of heavy metals on dye containing zeolite, Doctorate, T.TÜĞSÜZ(Student), 2007

DÜZ B., SEVİN DÜZ F., Catalytic activity of metal carbenes, synthesized with atomic carbon and tungsten hexachloride (WCl₆), in olefin metathesis reactions, Postgraduate, D.YÜKSEL(Student), 2007

Sevin Düz F., An experimental and computational investigation of the reaction of atomic carbon generated in carbon arc reactor with aniline, Postgraduate, A.ECE(Student), 2005

Sevin Düz F., Theoretical investigations of atomic carbon reactions with substituted cyclopentene compounds, Postgraduate, R.YILMAZ(Student), 2005

Sevin Düz F., Zeolite catalyzed photooxidation of cyclohexane, Postgraduate, İ.SÖKMEN(Student), 2000

Articles Published in Journals That Entered SCI, SSCI and AHCI Indexes

- I. **Molecular engineering of thienothiophene or dithienopyrrole-based π -spacers for dye-sensitized solar cells (DSSCs) with D- π -A architecture: A DFT/TD-DFT study**
Sarıkavak K., Kurtay G., Sevin Düz F., Güllü M.
Computational And Theoretical Chemistry, vol.1201, pp.113275-113287, 2021 (Journal Indexed in SCI Expanded)
- II. **Comparative cation sensing properties of a newly designed urea linked ferrocene-benzimidazole dyad: a DFT study**
Sarıkavak K., Kurtay G., Sevin F.
JOURNAL OF MOLECULAR MODELING, vol.26, 2020 (Journal Indexed in SCI)
- III. **The discovery of potential cyclin A/CDK2 inhibitors: a combination of 3D QSAR pharmacophore modeling, virtual screening, and molecular docking studies**
Ece A., Sevin F.
MEDICINAL CHEMISTRY RESEARCH, vol.22, no.12, pp.5832-5843, 2013 (Journal Indexed in SCI)
- IV. **QSAR and docking studies of inhibition activity of 5,6-dihydro 11-alkylbenzo[alpha]carbazole derivatives against estrogen receptor**
Taskin T., Sevin F.
TURKISH JOURNAL OF CHEMISTRY, vol.35, no.3, pp.481-498, 2011 (Journal Indexed in SCI)
- V. **Exploring QSAR on 4-cyclohexylmethoxypyrimidines as antitumor agents for their inhibitory activity of CDK2**
Ece A., Sevin F.
Letters in Drug Design and Discovery, vol.7, no.9, pp.625-631, 2010 (Journal Indexed in SCI)
- VI. **Diastereoselective control through hydrogen bonding in the aziridination of the chiral allylic alcohols by acetoxyaminoquinazolinone**
ÇAKICI M., Karabuga S., KILIÇ H., Ulukanli S., ŞAHİN E., Sevin F.
Journal of Organic Chemistry, vol.74, no.24, pp.9452-9459, 2009 (Journal Indexed in SCI)
- VII. **QSAR approach to correlate TRPV1 antagonist activity for a series of heteroaromatic urea**
Taskin T., Sevin F.
QSAR and Combinatorial Science, vol.28, no.10, pp.1098-1111, 2009 (Journal Indexed in SCI)
- VIII. **Reaction of atomic carbon with isomeric cresols**

- Sökmen I., Ece A., DÜZ B., Sevin F.
Letters in Organic Chemistry, vol.6, no.8, pp.650-653, 2009 (Journal Indexed in SCI)
- IX. **Application of carbon arc-generated Mo and W-based catalyst systems to the ROMP of norbornene**
DÜZ B., Elbistan C. K. , Ece A., Sevin F.
Applied Organometallic Chemistry, vol.23, no.9, pp.359-364, 2009 (Journal Indexed in SCI)
- X. **DFT study of the 1-octene metathesis reaction mechanism with WCl₆/C catalytic system**
YÜKSEL D., DÜZ B., SEVIN F.
JOURNAL OF PHYSICAL CHEMISTRY A, vol.112, no.20, pp.4636-4643, 2008 (Journal Indexed in SCI)
- XI. **Theoretical investigation on chemical and biochemical activities of 5,6-dihydro-11H-benzo[α]carbazole and its derivatives**
Taskin T., Sevin F.
Journal of Molecular Structure: THEOCHEM, vol.803, pp.61-66, 2007 (Journal Indexed in SCI)
- XII. **A DFT study on the structures and absorption spectra of the M-1-nitroso-2-naphthol complexes (M = Ni, Cu, Cr, Cd, Pb)**
Tüğsüz T., Sevin F.
JOURNAL OF MOLECULAR STRUCTURE-THEOCHEM, vol.775, pp.29-37, 2006 (Journal Indexed in SCI)
- XIII. **The first example of tungsten-based carbene generation from WC₁(6) and atomic carbon and its use in olefin metathesis**
Duz B., Yuksel D., Ece A., Sevin F.
TETRAHEDRON LETTERS, vol.47, no.29, pp.5167-5170, 2006 (Journal Indexed in SCI)
- XIV. **A theoretical study on the location of Ni²⁺, Cu²⁺, Cr²⁺, Cd²⁺ and Pb²⁺ in zeolite Y**
Tüğsüz T., Doğan M., Sevin F.
JOURNAL OF MOLECULAR STRUCTURE-THEOCHEM, vol.728, pp.103-109, 2005 (Journal Indexed in SCI)
- XV. **A Computational Investigation of the Reactions of Methylene, Chlorocarbene, and Dichlorocarbene with Cyclopropane**
Sevin F., McKee M. L. , Shevlin P. B.
Journal of Organic Chemistry, vol.69, no.2, pp.382-386, 2004 (Journal Indexed in SCI)
- XVI. **Theoretical investigation of intramolecular trapping of strain allene: Endo-bicyclo[3.2.1]octa-2,3-dien-6-ol**
Sevin F., Doğan M.
Journal of Molecular Structure, pp.265-270, 2003 (Journal Indexed in SCI)
- XVII. **Oxidation of cyclohexane catalyzed by metal-ion-exchanged zeolites**
Sökmen I., Sevin F.
Journal of Colloid and Interface Science, vol.264, no.1, pp.208-211, 2003 (Journal Indexed in SCI)
- XVIII. **The effect of the proton on electropolymerization of the thiophene**
Can M., Sevin F., Yildiz A.
Applied Surface Science, vol.210, pp.338-345, 2003 (Journal Indexed in SCI)
- XIX. **Trapping of a cycloheptatetraene in the reaction of atomic carbon with phenol**
Sevin F., Sökmen I., DÜZ B., Shevlin P. B.
Tetrahedron Letters, vol.44, no.16, pp.3405-3407, 2003 (Journal Indexed in SCI)
- XX. **Reactions of 1,3-cyclohexadiene with singlet oxygen. A theoretical study**
Sevin F., McKee M.
Journal of the American Chemical Society, vol.123, no.19, pp.4591-4600, 2001 (Journal Indexed in SCI)
- XXI. **Density functional calculations of methyl lithium, t-butyl lithium, and phenyllithium oligomers: Effect of hyperconjugation on conformation**
Kwon O., Sevin F., McKee M. L.
Journal of Physical Chemistry A, vol.105, no.5, pp.913-922, 2001 (Journal Indexed in SCI)
- XXII. **A comparative semiempirical, ab initio and DFT study of decarbonylation of cyclic ketones part 1: Thermal fragmentation of cyclopropanone**
Balcioglu N., Sevin F.
JOURNAL OF MOLECULAR MODELING, vol.6, no.2, pp.48-54, 2000 (Journal Indexed in SCI)

- XXIII. **Reaction mechanism of copper(I) catalysed head-to-head dimerization of 1-alkynes: An experimental and theoretical study**
Balcioglu N., Uraz I., Bozkurt C., Sevin F.
Polyhedron, vol.16, no.2, pp.327-334, 1997 (Journal Indexed in SCI)
- XXIV. **Effect of alkyl groups on carbanion stability Part I. Interaction of small rings with adjacent carbanion centers**
Baleioglu N., Sevin F., Evin O. O. , Peynircioglu N.
Berichte der Bunsengesellschaft/Physical Chemistry Chemical Physics, vol.96, no.2, pp.139-142, 1992 (Journal Indexed in SCI Expanded)

Articles Published in Other Journals

- I. **The Effect of Alkyl Groups on Carbanion Stability Part II. Analysis of α - β -Alkyl Substitution on Experimental and Theoretical Acidities**
Balcioglu N., Sevin F., Evin Ö., Bekir Peynircioglu N.
Berichte der Bunsengesellschaft/Physical Chemistry Chemical Physics, vol.100, no.10, pp.1723-1728, 1996
(Refereed Journals of Other Institutions)

Books & Book Chapters

- I. **KİMYA 2. CİLT (7. basımdan çeviri)**
GÜVEN A., YUSUFOĞLU A., UYANIK C., SEVİN DÜZ F., ARTOK L., KÖSE M., GÜLLÜ M., CANER N., YILDIRIM K., KÖKEN N., et al.
LİTERATÜR YAYINLARI, İstanbul, 2020
- II. **KİMYA 1. CİLT (7. basımdan çeviri)**
GÜVEN A., YUSUFOĞLU A., UYANIK C., SEVİN DÜZ F., ARTOK L., KÖSE M., GÜLLÜ M., CANER N., YILDIRIM K., KÖKEN N., et al.
LİTERATÜR YAYINLARI, İstanbul, 2017
- III. **Kovalent Bağ ve Elektron-Nokta Yapıları**
SEVİN DÜZ F., GÜVEN A., ARTOK L., CANER N., GÜLLÜ M., KARAGÖLGE Z., KÖKEN N., KÖSE M., UYANIK C., YILDIRIM K., et al.
in: Kimya : Cilt-1, prof.dr. Cavit Uyanık, Editor, literatür yayıncılık, İstanbul, pp.1-32, 2017
- IV. **Organik Kimya**
SEVİN DÜZ F., UYANIK C., YUSUFOĞLU A. S. , TÜLÜ M., ÖCAL SUNGUROĞLU Z. N. , NEBİOĞLU M., GÜVEN A., GÜLLÜ M., DEMİRCAN A., Bilgiç s., et al.
Literatür, İstanbul, 2016
- V. **ORGANİK KİMYA, YAPI VE İŞLEV, ÇALIŞMA VE PROBLEM ÇÖZÜMLERİ EL KİTABI**
SEVİN DÜZ F., UYAR T.
PALME YAYINCILIK, 2014
- VI. **TERMOKİMYA**
Sevin Düz F.
in: GENEL KİMYA, İlkeler ve Modern Uygulamalar, CİLT 1, TAHSİN UYAR, SERPİL AKSOY, RECAİ İNAM, Editor, Palme Yayın Dağıtım, Ankara, pp.402-654, 2012
- VII. **KİMYASAL KİNETİK**
Sevin Düz F.
in: GENEL KİMYA, İlkeler ve Uygulamalar, Cilt 2, TAHSİN UYAR, SERPİL AKSOY, RECAİ İNAM, Editor, Palme Yayın Dağıtım, Ankara, pp.602-654, 2012
- VIII. **ORGANİK KİMYA , YAPI VE İŞLEV**
UYAR T., SEVİN DÜZ F.

Refereed Congress / Symposium Publications in Proceedings

- I. **Uranil İyonuna Duyarlı Yeni Tasarlanmış DO3A-Tabanlı Boronik Asit Türevlerinin Yapısal ve Spektral (IR ,NMR ve UV-vis) Özelliklerinin Teorik Olarak İncelenmesi**
SEVİN DÜZ F., Sarıkavak K.
3. Hesaplamalı Kimya Kongresi, Ankara, Turkey, 12 - 14 October 2017, vol.1, pp.1-53
- II. **Synthesis and Theoretical Study of Dihydrocarbazole and Its Derivatives**
UZGÖREN BARAN A., ERGÜN M. Y. , TAŞKIN TOK T., SEVİN DÜZ F., OKAY G.
International Symposium on Medicinal Chemistry Research and Development 2005 (MCRD2005), KUŞADASI, Turkey, 28 September - 01 October 2005

Supported Projects

- SEVİN DÜZ F., KINIK Ö., SARIKAVAK K., Project Supported by Higher Education Institutions, HgY ve AgY Zeolitlerinin DNA Baz Çiftleri ile Etkileşimlerinin Teorik İncelenmesi, 2017 - 2017
- Sevin Düz F., TUBITAK Project, URANİL İYONUNA DUYARLI RNA BAĞLANMIŞ DOTA-TEMELLİ PEPTİT BAĞ İÇEREN BORONİK ASİT TÜREVLERİNİN YAPISAL VE SPEKTROSKOPİK ÖZELLİKLERİNİN TEORİK OLARAK İNCELENMESİ, 2015 - 2017
- Sevin Düz F., Project Supported by Higher Education Institutions, TORYUM IV KATYONU İLE DOTA KOMPLEKSLERİNİN SULU ORTAMDA DENGELİLİKLERİNİN VE SPEKTROSKOPİK ÖZELLİKLERİNİN HESAPSAL İNCELENMESİ, 2015 - 2016
- SEVİN DÜZ F., TUBITAK Project, Yeni Tasarlanan Benzimidazol Temelli Metal Aracılı Dna Baz Çiftlerinin Floresans Özelliklerinden Yararlanarak Mantık Kapılarının Dft Yöntemi İle Teorik İncelenmesi, 2014 - 2016
- SEVİN DÜZ F., Project Supported by Higher Education Institutions, 3D QSAR Farmakofor Modelleme Sanal Tarama ve Moleküler Yerleştirme Çalışmalarıyla Birlikte Potansiyel Siklin ACDK2 İnhibitörlerin Keşfi, 2015 - 2015
- Sevin Düz F., TUBITAK Project, Karbon Ark Yöntemi İle Tungsten Metalofulleren Ve Türevlerinin Deneysel İncelenmesi, 2009 - 2009
- Sevin Düz F., TUBITAK Project, TRPV1 Reseptör Antagonistlerinin Moleküler Modelleme Çalışmaları, 2007 - 2008
- Sevin Düz F., TUBITAK Project, Karbon ARC reaktöründe oluşturulan atomik karbon ile anilin reaksiyonunun incelenmesi, 2004 - 2005
- Sevin Düz F., TUBITAK Project, Atomik Karbonun Fenol ve Nanbornen ile Reaksiyonları, 2002 - 2004
- Sevin Düz F., TUBITAK Project, Investigation of the Chemistry of Carbon Vapor, 2001 - 2002
- Sevin Düz F., TUBITAK Project, Alkilliyum Agregatlarının Yapısı ve Sübstituent Etkisi, 1996 - 1999

Citations

Total Citations (WOS):266

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