

Prof. MUSTAFA HAYVALI

Personal Information

Office Phone: [+90 312 212 6720](tel:+903122126720)

Fax Phone: [+90 312 223 2395](tel:+903122232395)

Web: <https://avesis.ankara.edu.tr/hayvali>

International Researcher IDs

ORCID: 0000-0002-3335-6586

Publons / Web Of Science ResearcherID: AAF-3330-2020

Yoksis Researcher ID: 111814

Education Information

Doctorate, Ankara University, Fen Bilimleri Enstitüsü, Kimya (Dr), Turkey 1991 - 1997

Postgraduate, Ankara University, Fen Bilimleri Enstitüsü, Kimya (YI) (Tezli), Turkey 1989 - 1991

Undergraduate, Ankara University, Fen Fakültesi, Kimya Bölümü, Turkey 1983 - 1987

Dissertations

Doctorate, Bazı yeni porfirin türevlerinin sentezi yapıları ve bazlık sabitlerinin incelenmesi, Ankara University, Fen Bilimleri Enstitüsü, Kimya (Dr), 1997

Postgraduate, Bazı meso-sübstütüe porfirinlerin sentezi, komplekslerinin hazırlanması ve bazlık sabitlerinin tayini ile yapılarının aydınlatılması, Ankara University, Fen Bilimleri Enstitüsü, Kimya (YI) (Tezli), 1991

Research Areas

Ametals, Boron Chemistry, Inorganic Ring Compounds, Photochemistry of Inorganic Molecules, Coordination Chemistry

Academic Titles / Tasks

Professor, Ankara University, Fen Fakültesi, Kimya Bölümü, 2013 - Continues

Associate Professor, Ankara University, Fen Fakültesi, Kimya Bölümü, 2007 - 2013

Lecturer PhD, Ankara University, Fen Fakültesi, Kimya Bölümü, 2001 - 2007

Research Assistant, Ankara University, Fen Fakültesi, Kimya Bölümü, 1987 - 2001

Academic and Administrative Experience

Head of Department, Ankara University, Fen Fakültesi, Kimya Bölümü, 2018 - 2020

Head of Department, Ankara University, Fen Fakültesi, Kimya Bölümü, 2018 - 2020

Courses

KİM121 TEMEL KİMYA, Undergraduate, 2017 - 2018, 2015 - 2016, 2012 - 2013, 2011 - 2012
 KİM435 YAPISAL ANORGANİK KİMYA, Undergraduate, 2017 - 2018, 2015 - 2016, 2012 - 2013, 2011 - 2012
 HİDROJEN VE GÜNEŞ ENERJİSİ DÖNÜŞÜM TEKNOLOJİLERİ, Postgraduate, 2017 - 2018, 2016 - 2017
 KİM122 TEMEL KİMYA II, Undergraduate, 2016 - 2017, 2014 - 2015, 2013 - 2014, 2011 - 2012
 KİM124 ANORGANİK KİMYA II, Undergraduate, 2016 - 2017, 2014 - 2015, 2013 - 2014, 2011 - 2012, 2010 - 2011
 Hidrojen ve Güneş Enerjisi Dönüşüm Teknolojileri, Doctorate, 2015 - 2016, 2012 - 2013, 2011 - 2012, 2010 - 2011, 2009 - 2010

Advising Theses

HAYVALI M., Pentaarildipirin BF₂ komplekslerinin sentezi ve fotofiziksel özelliklerinin incelenmesi, Doctorate, G.SEVİNÇ(Student), 2018
 HAYVALI M., Bordipirin-porfirin bileşiklerinin sentezi ve optik özelliklerinin incelenmesi, Doctorate, F.MEHMET(Student), 2017
 HAYVALI M., Ağır atom süstitüe tetraarilazadirometen bordiflorür (Aza-bodipy) bileşiklerinin sentezi ve fotofiziksel özelliklerinin incelenmesi, Postgraduate, M.CEREN(Student), 2017
 HAYVALI M., Synthesis, characterizations, investigation of photophysical Properties of symmetrical and asymmetrical azadiopyrromethenes Ligands and BF₂ complexes, Doctorate, H.YILMAZ(Student), 2016
 HAYVALI M., Tetraarilazadirometen ligand ve metal komplekslerinin sentezi ve yapılarının aydınlatılması, Postgraduate, O.TÜRKMEN(Student), 2014
 HAYVALI M., Bordiprometen (BODIPY) bileşiklerinin sentezi ve yapılarının aydınlatılması, Postgraduate, G.SEVİNÇ(Student), 2013
 HAYVALI M., Tetraarilazadirometen ligand ve bordiflorür komplekslerinin sentezi, Postgraduate, H.YILMAZ(Student), 2011
 HAYVALI M., Tetraarilazadirometen ligand ve bordiflorür komplekslerinin sentezi, H.YILMAZ(Student), 2011

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Evaluation of an aza dipyrromethene derivative as a green corrosion inhibitor via experimental and theoretical methods**
 Fitoz A., Yılmaz H., HAYVALI M., EMREGÜL K. C.
 Journal of Molecular Liquids, vol.391, 2023 (SCI-Expanded)
- II. **Enhancement of two photon absorption properties and intersystem crossing by charge transfer in pentaaryl boron-dipyrromethene (BODIPY) derivatives**
 Kucukoz B., Sevinc G., Yildiz E., KARATAY A., Zhong F., Yilmaz H., Tutel Y., Hayvali M., Zhao J., YAĞLIOĞLU H. G.
 PHYSICAL CHEMISTRY CHEMICAL PHYSICS, vol.18, no.19, pp.13546-13553, 2016 (SCI-Expanded)
- III. **Two photon absorption properties of four coordinated transition metal complexes of tetraarylazadiopyrromethene compounds**
 Akhuseyin E., Turkmen O., Kucukoz B., Yilmaz H., KARATAY A., Sevinc G., Xu K., Hayvali M., YAĞLIOĞLU H. G.
 PHYSICAL CHEMISTRY CHEMICAL PHYSICS, vol.18, no.6, pp.4451-4459, 2016 (SCI-Expanded)
- IV. **Nonlinear absorption behaviors of filled and unfilled d shell metal complexes of 5, 10, 15, 20-tetrakis(4-hydroxyphenyl)porphyrin**
 Dogan N., Dumanogullari F. M., Hayvali M., Yilmaz H., Kurum U., YAĞLIOĞLU H. G., Elmali A.
 CHEMICAL PHYSICS LETTERS, vol.508, no.4-6, pp.265-269, 2011 (SCI-Expanded)
- V. **Synthesis and characterization of polymeric Pd(II), Pt(IV), and Au(III) complexes of 2,2'-(1,4-phenylenedivinylene)-bis-8-hydroxyquinoline**
 TAVMAN A., Hayvali M., Filik H., Kilic E.
 RUSSIAN JOURNAL OF INORGANIC CHEMISTRY, vol.51, no.8, pp.1198-1201, 2006 (SCI-Expanded)
- VI. **Studies on the effect of a newly synthesized Schiff base compound from phenazone and vanillin on**

the corrosion of steel in 2 M HCl

EMREGÜL K. C., Hayvali M.

CORROSION SCIENCE, vol.48, no.4, pp.797-812, 2006 (SCI-Expanded)

- VII. **p-Hertz excitation spectroscopy of an optical antenna, optical transmitter-receiver mechanism**
Bayrakceken F., Unlugedik A., Hayvali M., Yaman A.
SPECTROCHIMICA ACTA PART A-MOLECULAR AND BIOMOLECULAR SPECTROSCOPY, vol.61, no.9, pp.2109-2114, 2005 (SCI-Expanded)
- VIII. **Phosphorus-nitrogen compounds: novel spiro-cyclophosphazenic lariat (PNP-pivot) ether derivatives. Structures of 4,4,6,6-tetrachloro-2,2-[3-oxa-1,5-pentane dioxy bis(2-phenylamino)]cyclo-2 lambda(5),4 lambda(5),6 lambda(5)-triphosphazene and 4,4,6,6-tetrachloro-2,2-[1,2-xylylene dioxy bis(2-phenylamino)]cyclo-2 lambda(5),4 lambda(5),6 lambda(5)-triphosphazene. Part X**
Ozguc B., Bilge S., Caylak N., Demiriz E., Isler H., Hayvali M., Kilic Z., Hokelek T.
JOURNAL OF MOLECULAR STRUCTURE, vol.748, no.1-3, pp.39-47, 2005 (SCI-Expanded)
- IX. **Phosphorus-nitrogen compounds: Novel fully substituted spiro-cyclophosphazenic lariat (PNP-pivot) ether derivatives. Structures of 4,4,6,6-tetrapyrrolidino-2,2-[3-oxa-1,5-pentane dioxy bis(2-phenylamino)]cyclo-2 lambda(5),4 lambda(5),6 lambda(5)-triphosphazene and 4,4,6,6-tetrapyrrolidino-2,2-[1,2-xylylene dioxy bis(2-phenylamino)]cyclo-2 lambda(5), 4 lambda(5),6 lambda(5)-triphosphazene. Part XI**
Bilge S., Ozguc B., Safran S., Demiriz S., Isler H., Hayvali M., Kilic Z., Hokelek T.
JOURNAL OF MOLECULAR STRUCTURE, vol.748, no.1-3, pp.101-109, 2005 (SCI-Expanded)
- X. **Sequential spectrophotometric determination of paracetamol and p-aminophenol with 2,2'-(1,4-phenylenedivinylene) bis-8-hydroxyquinoline as a novel coupling reagent after microwave assisted hydrolysis**
Filik H., Hayvali M., Kilic E.
ANALYTICA CHIMICA ACTA, vol.535, no.1-2, pp.177-182, 2005 (SCI-Expanded)
- XI. **Photophysical and photochemical study of laser-dye coumarin-481 and its photoproduct in solution**
Bayrakceken F., Yaman A., Hayvali M.
SPECTROCHIMICA ACTA PART A-MOLECULAR AND BIOMOLECULAR SPECTROSCOPY, vol.61, no.5, pp.983-987, 2005 (SCI-Expanded)
- XII. **Synthesis and spectroscopic characterization of new Schiff bases containing the benzo-15-crown-5 moiety**
Hayvali Z., Hayvali M., Dal H.
MOLECULES, vol.9, no.10, pp.860-866, 2004 (SCI-Expanded)
- XIII. **The synthesis of some new mono and bis(crown ether)s and their sodium complexes. Tautomerism in o-hydroxybenzo-15-crown-5 Schiff bases as studied by UV-VIS spectrophotometry**
Hayvali M., Hayvali Z.
SYNTHESIS AND REACTIVITY IN INORGANIC AND METAL-ORGANIC CHEMISTRY, vol.34, no.4, pp.713-732, 2004 (SCI-Expanded)
- XIV. **Studies on the effect of vanillin and protocatechualdehyde on the corrosion of steel in hydrochloric acid**
EMREGÜL K. C., Hayvali M.
MATERIALS CHEMISTRY AND PHYSICS, vol.83, no.2-3, pp.209-216, 2004 (SCI-Expanded)
- XV. **New benzo-15-crown-5 ethers featuring salicylic Schiff base substitutions - Synthesis, complexes and structural study**
Hayvali Z., Hayvali M., Kilic Z., Hokelek T., Weber E.
JOURNAL OF INCLUSION PHENOMENA AND MACROCYCLIC CHEMISTRY, vol.45, no.3-4, pp.285-294, 2003 (SCI-Expanded)
- XVI. **Crystal structure of 4-[(1E)-(2-hydroxynaphthyl)methylidene]amino}-1,5-dimethyl-2-phenyl-2,3-dihydro-1H-pyrazol-3-one**
Hokelek T., Kilic Z., Isiklan M., Hayvali M.

ANALYTICAL SCIENCES, vol.18, no.2, pp.215-216, 2002 (SCI-Expanded)

- XVII. **Synthesis, complex formation, spectral and crystallographic investigations of new crown ethers containing recognition site for sodium. Part V**
Hayvali Z., Hayvali M., Kilic Z., Hokelek T.
JOURNAL OF MOLECULAR STRUCTURE, vol.597, no.1-3, pp.223-234, 2001 (SCI-Expanded)
- XVIII. **Synthesis and characterization of unsymmetrically tetrasubstituted porphyrin and their nickel (II) complexes with the crystal structure of 5,15-bis(4-aminophenyl)-10, 20-diphenylporphyrinatonicel(II)**
Hayvali M., Gunduz H., Gunduz N., Kilic Z., Hokelek T.
JOURNAL OF MOLECULAR STRUCTURE, vol.525, pp.215-226, 2000 (SCI-Expanded)
- XIX. **Titration in non-aqueous media: potentiometric investigation of symmetrical and unsymmetrical tetra-aryl porphyrins with 4-nitrophenyl and 4-aminophenyl substituents in nitrobenzene solvent**
Gunduz N., Gunduz T., Hayvali M.
TALANTA, vol.48, no.1, pp.71-79, 1999 (SCI-Expanded)
- XX. **TITRATIONS IN NONAQUEOUS MEDIA - POTENTIOMETRIC INVESTIGATION OF THE BASICITY OF MESO-PORPHYRINS IN NITROBENZENE SOLVENT**
GUNDUZ T., GUNDUZ N., HAYVALI M.
ANALYTICA CHIMICA ACTA, vol.278, no.2, pp.243-247, 1993 (SCI-Expanded)

Refereed Congress / Symposium Publications in Proceedings

- I. **Strategies Towards Enhancing the Efficiency of BODIPY Dyes in Dye Sensitized Solar Cells**
YILDIZ E., SEVİNÇ G., YAĞLIOĞLU H. G., HAYVALI M.
Fotonik 2018 20. Ulusal Optik, Elektro-Optik ve Fotonik Çalıştayı, Ankara, Turkey, 14 September 2018, vol.1, pp.34
- II. **Synthesis and Photophysical Properties of Unsymmetrical Aza-boron-dipyrromethene Compounds**
HAYVALI M., SEVİNÇ G., Yılmaz H.
International Conference on Advances in Engineering Sciences, Thailand 2017, 3 - 05 July 2017
- III. **Elektron ve Enerji Aktarım Mekanizmalarının BODIPY Boyaları ile Duyarlaştırılmış Güneş Pillerinin Verimliliği Üzerine Etkileri**
YILDIZ E., SEVİNÇ G., YAĞLIOĞLU H. G., HAYVALI M.
FOTONİK 2017 19. Ulusal Optik, Elektro-Optik ve Fotonik Çalıştayı, Turkey, 29 September 2017
- IV. **Electron Injection Dynamics in Dye Sensitized Solar Cells With BODIPY And/Or Aza-BODIPY Dyes**
YILDIZ E., SEVİNÇ G., HAYVALI M., YAĞLIOĞLU H. G.
MediNano-9, 4 - 05 September 2017
- V. **ARIL-BODIPY BİLEŞİKLERİNDE SUZUKİ-MİYAURA EŞLEŞME REAKSİYONU: SENTEZ ve FOTOFİZİKSEL ÖZELLİKLERİN BELİRLENMESİ**
SEVİNÇ G., KÜÇÜKÖZ B., Yılmaz H., YAĞLIOĞLU H. G., HAYVALI M.
VI. Ulusal Anorganik Kimya Kongresi, Burdur, Turkey, 18 - 21 May 2017, vol.1, pp.61
- VI. **BODIPY ve Aza-BODIPY Boyalarında Elektron Aktarım Dinamikleri ve Elektron Aktarımının Boya Duyarlaştırılmış Güneş Pillerine Etkilerinin Araştırılması**
YAĞLIOĞLU H. G., HAYVALI M., YILDIZ E., Yılmaz H., KÜÇÜKÖZ B., SEVİNÇ G., KARATAY A.
6. İzmir Yoğun Madde Fiziği Toplantısı, İzmir, Turkey, 21 April 2017
- VII. **BODIPY ve Aza-BODIPY Boyalarında Elektron Aktarım Dinamikleri ve Elektron Aktarımının Boya Duyarlılaştırılmış Güneş Pillerine Etkilerinin Araştırılması**
YAĞLIOĞLU H. G., HAYVALI M., YILDIZ E., Yılmaz H., Betül K., Sevinç G., KARATAY A.
6. İzmir Yoğun Madde Fiziği Toplantısı, İzmir, Turkey, 21 April 2017
- VIII. **TWO PHOTON ABSORPTION PROPERTIES OF TRANSITION METAL COMPLEXES OF TETRAARYLAZADIPYRRROMETHENE COMPOUNDS**
HAYVALI M., YILDIZ E., Türkmen O., KÜÇÜKÖZ B., Yılmaz H., KARATAY A., SEVİNÇ G., YAĞLIOĞLU H. G.
11th Inorganic Chemistry Conference, 1st Meeting of the Inorganic and Bioinorganic Chemistry Division of SPQ, 7 -

- IX. **Intersystem Crossing and Triplet Excited State Property of ThionatedNaphthalenediimide Derivatives**
YILDIZ E., Hussain M., Zhao J., Yang W., Zhong F., KARATAY A., YAĞLIOĞLU H. G., HAYVALI M.
FOTONİK 2016 18. Ulusal Optik, Elektro-Optik ve Fotonik Çalıştayı, Turkey, 23 September 2016
- X. **Radical Enhanced Intersystem Crossing (ISC) in Bodipy Derivatives and Application for Triplet-Triplet Annihilation Upconversion: Preparation, Study of the Photophysics and Electron Spin Polarization Dynamics**
YILDIZ E., Wang Z., Zhao J., Barbon A., Toffoletti A., Liu Y., An Y., KARATAY A., YAĞLIOĞLU H. G., HAYVALI M.
FOTONİK 2016 18. Ulusal Optik, Elektro-Optik ve Fotonik Çalıştayı, Turkey, 23 September 2016
- XI. **Enhancement Of Two Photon Absorption Properties And Intersystem Crossing By Charge Transfer In Pentaaryl Boron-Dipyrromethene (BODIPY) Derivatives**
YILDIZ E., Küçüköz B., SEVİNÇ G., KARATAY A., Zhong F., Yılmaz H., TUTEL Y., HAYVALI M., Zhao J., YAĞLIOĞLU H. G.
FOTONİK 2016 18. Ulusal Optik, Elektro-Optik ve Fotonik Çalıştayı, Turkey, 23 September 2016
- XII. **Trans Bis Alkylphosphine Platinum I Alkynyl Complexes Showing Broadband Visible Light Absorption And Long Lived Triplet Excited States**
Küçüköz B., Jia H., Yongheng X., Majumdar P., Zhang C., KARATAY A., YAĞLIOĞLU H. G., ELMALI A., Zhao J., HAYVALI M.
17. Ulusal Optik, Elektro-Optik ve Fotonik Çalıştayı, Turkey, 18 September 2015
- XIII. **Crown Eter İçeren BODIPY Bileşiğinin Sentezi Spektroskopik ve Spektrofotometrik Özelliklerinin İncelenmesi**
ŞAHİN D., Yılmaz H., HAYVALI Z., HAYVALI M.
27. Ulusal Kimya Kongresi, Turkey, 23 - 28 August 2015
- XIV. **Photophysical Properties of Newly Synthesized Boron Dipyrromethene Compounds**
HAYVALI M., YILMAZ H., BETÜL K., SEVİNÇ G., SEZEN T., YAĞLIOĞLU H. G., ELMALI A.
All in One Conferences, Dubai, United Arab Emirates, 24 - 28 March 2015
- XV. **Ultrafast dynamics explaining pH probe mechanism in borondipyrromethene benzimidazole compound**
SEVİNÇ G., Küçüköz B., Yılmaz H., Gökhan Ş., YAĞLIOĞLU H. G., HAYVALI M., ELMALI A.
2nd International Conference and Exhibition on Lasers, Optics Photonics, Philadelphia, United States Of America, 8 - 10 September 2014
- XVI. **The synthesis and electrochemical investigations of porphyrino phosphazenes**
HAYVALI M., ELMAS G., KILIÇ Z., SOLAK A. O., ÜSTÜNDAĞ Z.
VIII. International Electrochemistry Meeting, Antalya, Turkey, 8 October - 11 May 2009
- XVII. **Yeni Fosfaza Porfirin Bileşiklerin Sentezi**
HAYVALI M., KILIÇ Z., ELMAS G.
XXI. Ulusal Kimya Kongresi, Malatya, Turkey, 23 - 27 August 2007
- XVIII. **Nitro Sübstitüe 2-Hidroksi Schiff Bazlarında Tautomerinin Spektroskopik Yöntemlerle İncelenmesi**
NAZIR H., HAYVALI M., YILDIZ M., DAL H.
XIII. Ulusal Kimya Kongresi, Samsun, Turkey, 31 August - 04 September 1999

Metrics

Publication: 74

Citation (WoS): 1609

Citation (Scopus): 1694

H-Index (WoS): 22

H-Index (Scopus): 23