

## Assoc. Prof. MUHAMMED FATİH POLAT

### Personal Information

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### International Researcher IDs

ScholarID: hoyQevMAAAAJ

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Publons / Web Of Science ResearcherID: AAB-3029-2021

ScopusID: 57044336900

Yoksis Researcher ID: 106893

### Education Information

Doctorate, Ataturk University, Fen Bilimleri Enstitüsü, Kimya Anabilim Dalı, Turkey 2008 - 2013

Postgraduate, Ataturk University, Fen Bilimleri Enstitüsü, Kimya Anabilim Dalı, Turkey 2005 - 2008

Undergraduate, Ataturk University, Fen Fakültesi, Kimya, Turkey 2001 - 2005

### Foreign Languages

English, C1 Advanced

### Certificates, Courses and Trainings

Education Management and Planning, Doktora tez araştırması, Royal Institute of Technology, School of Engineering Sciences in Chemistry, Biotechnology And Health, Chemistry, 2010

### Dissertations

Doctorate, ORGANOCATALYTIC ONE-POT SYNTHESIS OF OPTICALLY ACTIVE N,O-ACETALS, Ataturk University, Fen Bilimleri Enstitüsü, Kimya Anabilim Dalı, 2013

Postgraduate, THE ALKYLATION OF 2-CYANOCYCLOPENTANONE WITH CLAISEN REARRANGEMENT, Ataturk University, Fen Bilimleri Enstitüsü, Kimya Anabilim Dalı, 2008

### Research Areas

Basic Pharmaceutics Sciences, Analytical Chemistry, General Chemistry, Chemistry, Organic Chemistry, Chemistry of Alicyclic Compounds, Chemistry of Aromatic Compounds, Chemistry of Asymmetric Synthesis, Plant Chemistry, Chemistry of Natural Products, Chemistry of Heterocyclic Compounds, Chemistry of Hydrocarbons, Chemistry of Carbanion,

Carbon Chemistry, Chemistry of Macromolecules, Photochemistry of Organics, Organic Reaction Mechanisms, Organic Spectroscopy, Organometallics, Free Radicals, Stereochemistry and Conformational Analysis, Steroid Chemistry, Natural Sciences

## Academic Titles / Tasks

Associate Professor, Erzincan Binali Yildirim University, Eczacılık Fakültesi, Temel Eczacılık Bilimleri Bölümü, 2023 - Continues

Assistant Professor, Erzincan Binali Yildirim University, Eczacılık Fakültesi, Temel Eczacılık Bilimleri Bölümü, 2018 - 2023

Assistant Professor, Erzincan Binali Yildirim University, Eczacılık Fakültesi, Temel Eczacılık Bilimleri Bölümü, 2013 - 2018

Research Assistant, Erzincan Binali Yildirim University, Fen-Edebiyat Fakültesi, Kimya Bölümü, 2008 - 2013

Research Assistant, Royal Institute of Technology, School of Engineering Sciences in Chemistry, Biotechnology and Health, Chemistry, 2010 - 2011

Research Assistant, Ataturk University, Fen Bilimleri Enstitüsü, Kimya, 2006 - 2008

## Academic and Administrative Experience

Head of Department, Erzincan Binali Yildirim University, Eczacılık Fakültesi, Temel Eczacılık Bilimleri Bölümü, 2013 - 2025

Vice Dean, Erzincan Binali Yildirim University, Eczacılık Fakültesi, 2021 - 2024

Erzincan Üniversitesi, Temel Bilimler Uygulama Ve Araştırma Merkezi, 2015 - 2016

## Courses

Analytical Chemistry, Undergraduate, 2021 - 2022

Analytical Chemistry Lab. 1, Undergraduate, 2021 - 2022, 2017 - 2018, 2016 - 2017

Analytical Chemistry Lab. 2, Undergraduate, 2020 - 2021, 2016 - 2017

Drug Nomenclature, Undergraduate, 2020 - 2021, 2017 - 2018, 2016 - 2017, 2015 - 2016, 2014 - 2015

ANALİTİK KİMYA 1, Undergraduate, 2020 - 2021

Organic Chemistry 2, Undergraduate, 2020 - 2021, 2016 - 2017, 2015 - 2016, 2014 - 2015

Organic Chemistry 1, Undergraduate, 2020 - 2021, 2017 - 2018, 2016 - 2017, 2015 - 2016, 2014 - 2015

## Jury Memberships

Post Graduate, YÜKSEK LİSANS TEZ SAVUNMA, ATATÜRK ÜNİVERSİTESİ ECZACILIK FAKÜLTESİ, October, 2018

Post Graduate, YÜKSEK LİSANS TEZ SAVUNMA, ATATÜRK ÜNİVERSİTESİ FEN FAKÜLTESİ KİMYA BÖLÜMÜ, May, 2018

Doctorate, DOKTORA TEZ SAVUNMA, ATATÜRK ÜNİVERSİTESİ ECZACILIK FAKÜLTESİ, March, 2018

Post Graduate, YÜKSEK LİSANS TEZ SAVUNMASI, ATATÜRK ÜNİVERSİTESİ FEN FAKÜLTESİ KİMYA BÖLÜMÜ, May, 2017

Post Graduate, YÜKSEK LİSANS TEZ SAVUNMA, ATATÜRK ÜNİVERSİTESİ ECZACILIK FAKÜLTESİ, June, 2016

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

- Synthesis and cytotoxicity of novel 6,8,9-trisubstituted purine analogs against liver cancer cells**  
POLAT M. F., Durmaz Şahin I., KUL P., Cetin Atalay R., TUNÇBİLEK M.  
Bioorganic and Medicinal Chemistry Letters, vol.106, 2024 (SCI-Expanded)
- Exploration of novel 6,8,9-trisubstituted purine analogues: synthesis, in vitro biological evaluation, and their effect on human cancer cells**

POLAT M. F., İrem D. Ş., Atalay R., Tunçbilek M.

Turkish Journal of Chemistry, vol.48, no.1, pp.108-115, 2024 (SCI-Expanded)

- III. **New Fluoro- and Trifluoromethyl-Substituted Trimethoxychalcones as Anticancer Agents: Synthesis, Bio-evaluation, and Computational Studies**  
Polat M. F., Anil D. A., Ozkemahli G., Turkmenoglu B., Hepokur C., Burmaoglu S., Algul O.  
ChemistrySelect, vol.8, no.32, 2023 (SCI-Expanded)
- IV. **Exploring enzyme inhibition profiles of novel halogenated chalcone derivatives on some metabolic enzymes: Synthesis, characterization and molecular modeling studies**  
ANIL D., POLAT M. F., Saglamtas R., Tarikogullari A. H., ALAGÖZ M. A., GÜLÇİN İ., Algul O., BURMAOĞLU S.  
Computational Biology and Chemistry, vol.100, 2022 (SCI-Expanded)
- V. **Synthesis of Asebogenin and Balsacone A Precursor by a Novel Synthetic Strategy: Recent Opportunities for and Challenges of Total Synthesis of Balsacone A**  
Fatih Polat M. F.  
Molecules (Basel, Switzerland), vol.27, no.11, 2022 (SCI-Expanded)
- VI. **New chalcone derivatives as effective against SARS-CoV-2 agent**  
Duran N., Polat M. F., Anil D., Alagöz M. A., Ay E., Cimen F., Tek E., Anil B., Burmaoğlu S., Algül Ö.  
International Journal of Clinical Practice, vol.75, no.12, 2021 (SCI-Expanded)
- VII. **Synthesis of novel tris-chalcones and determination of their inhibition profiles against some metabolic enzymes.**  
BURMAOĞLU S., Yilmaz A. O., Polat M. F., Kaya R., GÜLÇİN İ., ALGÜL Ö.  
Archives of physiology and biochemistry, vol.127, pp.153-161, 2021 (SCI-Expanded)
- VIII. **Highly efficient chemical phosphorylation of 6-(4-phenylpiperazine-1-yl)-9-(beta-D-ribofuranosyl)-9H-purine**  
Polat M. F., Tuncbilek M.  
NUCLEOSIDES NUCLEOTIDES & NUCLEIC ACIDS, vol.40, no.3, pp.233-241, 2021 (SCI-Expanded)
- IX. **Synthesis and biological evaluation of novel tris-chalcones as potent carbonic anhydrase, acetylcholinesterase, butyrylcholinesterase and alpha-glycosidase inhibitors**  
BURMAOĞLU S., Yilmaz A. O., Polat M. F., Kaya R., GÜLÇİN İ., ALGÜL Ö.  
BIOORGANIC CHEMISTRY, vol.85, pp.191-197, 2019 (SCI-Expanded)
- X. **In Vitro Inhibition of Three Different Drugs Used in Rheumatoid Arthritis Treatment on Human Serum Paraoxanase 1 Enzyme Activity**  
DİLEK E., POLAT M.  
PROTEIN AND PEPTIDE LETTERS, vol.23, no.1, pp.3-8, 2016 (SCI-Expanded)
- XI. **One-Pot, Two-Step Protocol for the Catalytic Asymmetric Synthesis of Optically Active N,O- and O,O-Acetals**  
Polat M. F., HETTMANCZYK L., ZHANG W., SZABO Z., FRANZÉN J.  
ChemCatChem, vol.5, no.6, pp.1334-1339, 2013 (SCI-Expanded)
- XII. **Enantioselective synthesis of cyclic, quaternary oxonitriles**  
Güneş Y., POLAT M. F., ŞAHİN E., FLEMING F. F., Altundas R.  
Journal of Organic Chemistry, vol.75, no.21, pp.7092-7098, 2010 (SCI-Expanded)
- XIII. **A novel one-pot conversion of allyl alcohols into primary allyl halides mediated by acetyl halide**  
KİSHALI N., POLAT M. F., Altundas R., KARA Y.  
Helvetica Chimica Acta, vol.91, no.1, pp.67-72, 2008 (SCI-Expanded)

## Articles Published in Other Journals

- I. **Synthesis and characterization of novel mono, bis and tris heteroaryl chalcone derivatives of 1,3,5-trimethoxybenzene**  
POLAT M. F., ANIL D.  
ORGANIC COMMUNICATIONS, vol.14, no.1, pp.39-47, 2021 (ESCI)

**II. Synthesis and characterization of some novel fluoro and methoxy substituted chalcone derivatives via nucleophilic aromatic substitution**

ANIL D., POLAT M. F.

ORGANIC COMMUNICATIONS, vol.13, no.1, pp.19-27, 2020 (ESCI)

**Refereed Congress / Symposium Publications in Proceedings**

- I. **Some novel fluorine containing bis-chalcone derivatives with promising antiproliferative activities**  
POLAT M. F., ÖZLİ S.  
10th International Drug Chemistry Conference, Antalya, Turkey, 10 March 2022
- II. **'Synthesis of novel fluoro-substituted retro-chalcones derivatives and their antiproliferative activity in A549 cell line**  
Polat M. F., Özkemahlı K. G.  
9th Drug Chemistry Conference , Antalya, Turkey, 8 - 11 April 2021, pp.62
- III. **Design, Synthesis and Determination of Bisbenzazol Derivatives for Antiproliferative and Antimicrobial Activity**  
Polat M. F., Ersan R. H., Burmaoğlu S., Algül Ö.  
8th International Drug Chemistry Conference, Antalya, Turkey, 27 February - 01 March 2020, pp.102-106
- IV. **A Novel Asymmetric Catalytic Alkylation Studies of Optically Active Cyclic Oxonitriles**  
POLAT M. F.  
7th Drug Chemistry Conference: Design, Synthesis, Production and Standardization of Drug Active Substances, Antalya, Turkey, 14 - 17 March 2019
- V. **Design and Synthesis of Novel 8-Aryl Substituted 9-Cyclopentyl Purine Derivatives as Potential Cytotoxic Agents**  
TUNÇBİLEK M., POLAT M. F., DURMAZ I., Çetin Atalay R.  
The 20th International Research Conference, Paris, France, 27 - 28 August 2018, vol.20, pp.2081-2083
- VI. **Bazı Yeni Flor-Sübstitüe Tris-kalkon Türevlerinin Sentezleri ile Bu Bileşiklerin Antikanser Aktivitelerinin Araştırılması**  
POLAT M. F., YILMAZ A. O., BURMAOĞLU S.  
Uluslararası Katılımlı 6. İlaç Kimyası: İlaç Etkin Maddesi Tasarımı, Sentezi, Üretimi ve Standardizasyonu Kongresi, Antalya, Turkey, 22 - 25 March 2018, pp.225
- VII. **Synthesis and in vitro anticancer activity of novel 6,8,9-trisubstituted purine analogs**  
POLAT M. F., Tuncbilek M., Durmaz İ., Çetin Atalay R.  
International Multidisciplinary Symposium on Drug Research and Development DRD 2017, Erzurum, Turkey, 5 - 07 October 2017, pp.193
- VIII. **Asymmetric catalytic one pot synthesis of optically active N O acetals**  
POLAT M. F., JOHAN F.  
Anatolian Conference on Synthetic Organic Chemistry (ACSOC), 16 - 19 March 2015
- IX. **Siklik N,O- Asetallerin Tek Kademedede Enantiyoselektif Sentezi**  
POLAT M. F., FRANZÉN J.  
26. Ulusal Kimya Kongresi, Muğla, Turkey, 1 - 06 October 2012, pp.67
- X. **Siyanosikloktan Türevlerinin Sentezi**  
Arçelik N., POLAT M. F., GÜNEŞ Y., Altundaş R.  
26. Ulusal Kimya Kongresi, Muğla, Turkey, 1 - 06 October 2012, pp.76
- XI. **AN ATTEMPT FOR THE 1 ENANTIOSELECTIVE OF ALKYLATION OF 2- CYANOCYCLOPENTANONE**  
Altundaş R., GÜNEŞ Y., POLAT M. F.  
Taibah International Chemistry Conference 2009, Medine, Saudi Arabia, 23 - 25 March 2009, pp.1
- XII. **A New Approach to the Synthesis of  $\beta$ -amino- $\alpha$ -hydroxy Acids**  
Altundaş R., Fıstıkçı M., GÜNEŞ Y., POLAT M. F.  
xxii. Ulusal Kimya Kongresi, Mağusa, Cyprus (Kktc), 6 - 10 October 2008, pp.11

- XIII. **A novel one-pot conversion of sec- and tert- allyl alcohols into primary allyl halides mediated by AcX**  
KISHALI N., POLAT M. F., Altundaş R., KARA Y.  
International Conference on Organic Chemistry, Erzurum, Turkey, 5 - 09 June 2007, pp.136
- XIV. **A new method for the alkylation of 2 Cyanocyclopentanone**  
Altundaş R., Güneş Y., Polat M. F., Burmaoğlu S.  
International Conference on Organic Chemistry, Erzurum, Turkey, 5 - 09 June 2007, pp.1

## Supported Projects

- ALGÜL Ö., TÜRKMEÑOĞLU B., POLAT M. F., ÖZKEMAHLI K. G., GÜRSOY Ş., Project Supported by Higher Education Institutions, Yeni Kalkon Hibrit Türevlerinin Tasarımı Sentezi ve Meme Kanseri Hücreleri Üzerinde Olası Antiproliferatif Etkilerinin Araştırılması, 2021 - 2024
- Özli G., Polat M. F., Gül H. İ., Project Supported by Higher Education Institutions, Bis sülfonamid grupları içeren yeni potansiyel biyoaktif pirazolin türevleri üzerinde çalışmalar., 2021 - 2022
- YILDIZTEKİN K. G., POLAT M. F., Project Supported by Higher Education Institutions, Bazı Kalkon Türevi Bileşiklerin Antiproliferatif Aktivitelerinin Farklı Hücre Hatlarında Belirlenmesi, 2020 - 2021
- POLAT M. F., BURMAOĞLU S., Project Supported by Higher Education Institutions, Antiproliferatif ve Antimikrobiyal Aktiviteli Olabilecek Bisbenzazol Türevi Bileşiklerin Tasarlanması Sentezi ve Aktivitelerinin Belirlenmesi, 2018 - 2020
- Polat M. F., Demir Ü., TUBITAK Project, Kuantum Parçacık Duyarlı Güneş Hücreleri İçin Yeni Nesil Nanokompozit Elektrotlar, 2017 - 2020
- POLAT M. F., BURMAOĞLU S., Project Supported by Higher Education Institutions, Bazı yeni flor süstitüe tris-hidroksikalkon türevlerinin sentezleri ile bu bileşiklerin antikanser aktivitelerinin araştırılması, 2017 - 2019
- TUNA YILDIRIM S., SHIRINZADEH H., POLAT M. F., GÜMÜŞEL B., Project Supported by Higher Education Institutions, Eczacılık Fakültesi Öğrenci ve Araştırma Laboratuvarlarının Kurulması, 2017 - 2018
- KÖKSAL E., ÇIRAK Ç., POLAT M. F., Project Supported by Higher Education Institutions, Erzincan Üniversitesi, Temel Bilimler Uygulama ve Araştırma Merkezi (EÜTAM) Sarf Malzeme Altyapısının Oluşturulması, 2015 - 2018
- POLAT M. F., TUBITAK Project, Sitotoksik Aktiviteli Yeni Nükleozit Analoglarının Sentezlenmesi ve Protein Kinazlar Üzerine Olan Etkilerinin Karaciğer Kanseri Hücrelerinde Belirlenmesi, 2012 - 2016
- POLAT M. F., Project Supported by Higher Education Institutions, Siklik Oksonitrillerin Asimetrik Katalize Enantiyoselektif Alkilasyonu, 2013 - 2015
- ÇUBUK O., ÇAĞLAR B., TUNA YILDIRIM S., POLAT M. F., Project Supported by Higher Education Institutions, Yeni Geliştirilmiş Çeşitli Killerin Kataliz Ve Adsorpsiyon Özelliklerinin İncelenmesi, 2009 - 2011
- TUBITAK Project, Siyanoketonların Yeni Bir Yöntemle Alkilasyonu ve Terpenoid Sentezlerinde Kullanımı, 2006 - 2009

## Memberships / Tasks in Scientific Organizations

Kimyagerler Derneği Doğu Anadolu Şubesi, Board Member, 2013 - Continues

## Metrics

Publication: 33

Citation (WoS): 111

Citation (Scopus): 210

H-Index (WoS): 6

H-Index (Scopus): 7

## Awards

