

## Asst. Prof. İRFAN ÇAPAN



### Personal Information

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### Education Information

Doctorate, Fırat University, Institute Of Science, Kimya (Dr), Turkey 2010 - 2017

Postgraduate, Erciyes University, Fen Bilimleri Enstitüsü, Turkey 2007 - 2010

Undergraduate, Erciyes University, Fen Fakültesi, Kimya , Turkey 2003 - 2007

### Certificates, Courses and Trainings

Data Analysis, Deney Laboratuvarları İçin Metot Geçerli Kılma/Doğrulama (Validasyon/Verifikasyon) ve Ölçüm Belirsizliği Eğitimi, RAN Kalite Eğitim Danışmanlık, 2021

Quality Management, TS EN ISO/IEC 17025:2017'e Göre İç Tetkik Eğitimi (TS EN ISO 19011:2018 Yönetim Sistemleri Tetkik Standartı Tabanlı), Ran Kalite Eğitim Danışmanlık, 2021

Quality Management, TS EN ISO/IEC 17025:2017 Deney ve Kalibrasyon Laboratuvarlarının Yetkinliği İçin Genel Gereklilikler Standartı Eğitimi, RAN Kalite Eğitim Danışmanlık, 2021

### Dissertations

Doctorate, Dibenzobarallen ve Norbornen İskeletine Sahip Yeni 2-İmidazolin ve Benzimidazol Türevlerinin Sentezi, Fırat University, Fen Bilimleri Enstitüsü, Kimya (Dr), 2017

Postgraduate, Benzimidazol Sübstitüe 1,2,4-Triazol ve 1,3,4-Tiyadiazollerin Mikrodalga Destekli Sentezleri, Erciyes University, Fen Bilimleri Enstitüsü, 2010

### Research Areas

Basic Sciences of Pharmacy, General Chemistry, Pharmaceutical Chemistry, Physical Chemistry, Chemistry of Aromatic Compounds, Chemistry of Natural Products, Chemistry of Heterocyclic Compounds, Organic Spectroscopy, Natural Sciences

### Academic Titles / Tasks

Assistant Professor, Gazi University, Teknik Bilimler Meslek Yüksekokulu, Malzeme Ve Malzeme İşleme Teknolojileri Bölümü, 2022 - Continues

Lecturer PhD, Gazi University, Teknik Bilimler Meslek Yüksekokulu, Malzeme Ve Malzeme İşleme Teknolojileri Bölümü, 2018 - 2022

Research Assistant, Fırat University, Faculty Of Science, Department Of Chemistry, 2009 - 2018

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

- I. **Synthesis, DFT study, molecular docking and drug-likeness analysis of the heteroaryl substituted new pregnenolone derivatives**  
ÇAPAN İ., SERT Y., Shehu A., KOCA İ., Servi S.  
Journal of Molecular Structure, vol.1260, 2022 (Journal Indexed in SCI Expanded)
- II. **Experimental and computational studies of 1,5-diphenyl-pyrazole-3-carboxamide compounds as potential Cannabinoid receptor type 1**  
Koca İ., Yakan M., Çapan İ., Şahin E., Sert Y.  
JOURNAL OF MOLECULAR STRUCTURE, pp.1-13, 2022 (Journal Indexed in SCI Expanded)
- III. **Discovery and optimization of piperazine urea derivatives assoluble epoxide hydrolase (sEH) inhibitors**  
Çapan İ., Jordan P. M. , Olğaç A., Çalışkan B., Kretze C., Werz O., Banoğlu E.  
CHEMMEDCHEM, vol.17, pp.1-10, 2022 (Journal Indexed in SCI Expanded)
- IV. **Methimazole Analogs as Urease Inhibitors: Synthesis, In Silico and In Vitro Evaluation**  
ÇAPAN İ.  
CHEMISTRYSELECT, vol.7, no.4, 2022 (Journal Indexed in SCI)
- V. **Synthesis, molecular docking, molecular dynamics and evaluation of Drug-Likeness properties of the fused N-Formyl pyrazoline substituted new dehydroepiandrosterone derivatives**  
ÇAPAN İ., Shehu A., SERT Y., ÇELİK İ., EROL M., KOCA İ., Servi S.  
JOURNAL OF BIOMOLECULAR STRUCTURE & DYNAMICS, 2022 (Journal Indexed in SCI)
- VI. **Synthesis, DFT Study, Molecular Docking and Drug-Likeness Analysis of the New Hydrazine-1-Carbothioamide, Triazole and Thiadiazole Derivatives: Potential Inhibitors of HSP90**  
ÇAPAN İ., Servi S., YILDIRIM İ., SERT Y.  
CHEMISTRYSELECT, vol.6, no.23, pp.5838-5846, 2021 (Journal Indexed in SCI)
- VII. **Synthesis, dielectric properties, molecular docking and ADME studies of pyrrole-3-ones**  
ÇAPAN İ., GÜMÜŞ M., Gokce H., ÇETİN H., SERT Y., KOCA İ.  
JOURNAL OF BIOMOLECULAR STRUCTURE & DYNAMICS, 2021 (Journal Indexed in SCI)
- VIII. **Synthesis and Anticancer Evaluation of Benzimidazole Derivatives Having Norbornene/Dibenzobarrelene Skeletons and Different Functional Groups**  
ÇAPAN İ., Servi S., Dalkilic S., Dalkilic L. K.  
CHEMISTRYSELECT, vol.5, no.45, pp.14393-14398, 2020 (Journal Indexed in SCI)
- IX. **Synthesis of New C2-Symmetric Chiral Benzimidazole Derivatives Having Norbornene/Dibenzobarrelene Skeletons**  
ÇAPAN İ., SERVİ S.  
LETTERS IN ORGANIC CHEMISTRY, vol.17, no.10, pp.801-805, 2020 (Journal Indexed in SCI)
- X. **Synthesis of Indole and Benzimidazole Substituted Novel 16-Arylidene Steroid Derivatives**  
Karatas S., ÇAPAN İ., SERVİ S.  
LETTERS IN ORGANIC CHEMISTRY, vol.16, no.11, pp.884-890, 2019 (Journal Indexed in SCI)
- XI. **A new barbiturate-based centrosymmetric compound: Joint experimental/DM investigation of the structural, spectroscopic and surface properties**  
Sen F., Capan İ., Dincer M., Cukurovali A.  
JOURNAL OF MOLECULAR STRUCTURE, vol.1155, pp.278-287, 2018 (Journal Indexed in SCI)
- XII. **Synthesis of Heterocyclic-Substituted Novel Hydroxysteroids with Regioselective and Stereoselective Reactions**  
Kolo A. M. , Ipek E., Capan İ., Servi S.  
JOURNAL OF HETEROCYCLIC CHEMISTRY, vol.55, no.2, pp.492-497, 2018 (Journal Indexed in SCI)
- XIII. **Synthesis of novel aza-heterocyclic derivatives from diester and diacid chlorides having the dibenzobarrelene skeleton**  
ÇAPAN İ., SERVİ S.  
SYNTHETIC COMMUNICATIONS, vol.48, no.10, pp.1164-1171, 2018 (Journal Indexed in SCI)

- XIV. **Synthesis of novel C-2 substituted imidazoline derivatives having the norbornene/dibenzobarrelene skeletons**  
ÇAPAN İ., SERVİ S.  
ARKIVOC, pp.131-142, 2018 (Journal Indexed in SCI)

### Articles Published in Other Journals

- I. **Isolation of amygdalin epimer at high diastereomeric purity and its structural characterization by spectroscopic and Q-TOF LC-MS methods**  
Sabir P. R. , ÇAPAN İ., AYSAL A. İ. , Servi S.  
JOURNAL OF CHEMICAL METROLOGY, vol.15, no.2, pp.172-185, 2021 (Journal Indexed in ESCI)
- II. **Synthesis of carbazole-based acetyl benzohydrazides targeting urease enzyme inhibition**  
ÇAPAN İ.  
ORGANIC COMMUNICATIONS, vol.14, no.3, pp.270-279, 2021 (Journal Indexed in ESCI)

### Refereed Congress / Symposium Publications in Proceedings

- I. **Synthesis of Tyrosine Based Peptides and Investigation of DNA Damage and Cytotoxicity**  
ÇALIŞKAN E., KORAN K., GÖRGÜLÜ A. O. , ÇAPAN İ., TEKİN S., SANDAL S.  
5th Organic Chemistry Congress 2021, Turkey, 14 October 2021
- II. **Üreaz İnhibitörü Olarak Yeni Oksadiazol-2-on Türevlerinin Sentezi**  
ÇAPAN İ.  
33. Ulusal Kimya Kongresi, Turkey, 07 October 2021
- III. **Determination of the Amount of Acrylamide, Phthalate and Bisphenol-A (BPA) in Tap Water in the Ostim Organized Industrial Zone by Liquid Chromatography Mass Spectrometry**  
Çapan İ., Yalnız H. A. , Arslaner İ. B. , Süslü D.  
33. Ulusal Kimya Kongresi, 7 - 09 October 2021, pp.311
- IV. **Synthesis of Novel Oxadiazole-2-one Derivatives as Urease Inhibitors**  
Çapan İ.  
33. Ulusal Kimya Kongresi, 7 - 09 October 2021, pp.122
- V. **SYNTHESIS AND CHARACTERIZATION OF NEW ORGANIC COMPOUNDS CONTAINING PYRIMIDINE**  
Çapan İ., Koca İ.  
6th INTERNATIONAL ZEUGMA CONFERENCE ON SCIENTIFIC RESEARCHES June 19-20, 2021, GAZİANTEP, TURKEY, 19 - 20 June 2021, pp.297-302
- VI. **Synthesis of Potential Biologically Active Molecules; Thiosemicarbazide and 1,2,4-Triazole Derivatives Having the Carbazole Hybrid**  
ÇAPAN İ.  
8. International Drug Chemistry Conference, Turkey, 27 February 2020
- VII. **Investigation of thermal and dielectric properties of morpholine/triazine-based acryl amide polymer composites**  
ÇAPAN İ., ÇEVİRİMLİ B. S. , BİRYAN F.  
2nd International Eurasian Conference on Biological and Chemical Sciences (EurasianBioChem 2019), 28 - 29 June 2019
- VIII. **Synthesis of Pyrazoline Derivatives that are Exocyclic Substituted with the Steroid Molecule**  
ÇAPAN İ., Shehu A., SERVİ S.  
2nd International Eurasian Conference on Biological and Chemical Sciences (EurasianBioChem 2019), 28 - 29 June 2019
- IX. **Synthesis of Norbornene-Based Compounds Containing Ester and Benzimidazole**  
Çapan İ., Servi S.

International Eurasian Conference on Biological and Chemical Sciences (EurasianBioChem 2018), Ankara, Turkey, 26 - 27 April 2018, pp.456

- X. **Synthesis of Novel C-2 Substituted Imidazoline Derivatives from Diacid Chlorides Having the Norbornene Skeletons**  
Çapan İ., Servi S.  
International Eurasian Conference on Biological and Chemical Sciences (EurasianBioChem 2018), Ankara, Turkey, 26 - 27 April 2018, pp.1282
- XI. **The Unexpected Products from the Reaction of 2-Amino Benzimidazole or 2-Amino Imidazoline with Dibenzobarrelene -Based Diester and Diacid Chlorides**  
ÇAPAN İ., SERVİ S.  
Uluslararası Katılımlı 6. İlaç Kimyası: İlaç Etkin Maddesi Tasarımı, Sentezi, Üretimi ve Standardizasyonu Kongresi, Turkey, 22 - 25 March 2018
- XII. **Synthesis of Novel C-2 Substituted Imidazoline Derivatives From Diacid Chlorides Having The Dibenzobarrelene Skeletons**  
ÇAPAN İ., SERVİ S.  
Uluslararası Katılımlı 6. İlaç Kimyası: İlaç Etkin Maddesi Tasarımı, Sentezi, Üretimi ve Standardizasyonu Kongresi, Turkey, 22 March 2018
- XIII. **QUANTUM CHEMICAL, SPECTROSCOPIC AND CRYSTALSTRUCTURE STUDIES oF 1-(2-(3-METHYL-3-PHENYLCYCLOBUTYL)-2-OXOE THYL)- 1 H-INDOLE-3 -CARBALDEHYDE**  
ACAR B., DİNÇER M., ÇAPAN İ., ÇUKUROVALI A.  
33th INTERNATIONAL PHYSICS CONGRESS, Muğla, Turkey, 6 - 10 September 2017
- XIV. **One-Pot Synthesis of New bis- 2-imidazolines from Nitriles under Neat Condition**  
ÇAPAN İ., KOLO M. A. , SERVİ S.  
Anatolian Conference on Synthetic Organic Chemistry (ACSOC-II), 21 - 24 March 2016
- XV. **Synthesis of New Benzimidazolyl and Indolyl Substituted trans-dehydroandrosterone Derivatives**  
Doğan Karataş S., ÇAPAN İ., KOLO M. A. , SERVİ S.  
Anatolian Conference on Synthetic Organic Chemistry (ACSOC-II), 21 - 24 March 2016
- XVI. **Synthesis of Chiral C2-Symmetric Bis- Benzimidazoles from Anthracene's [4 + 2] Cycloaddition Product**  
ÇAPAN İ., SERVİ S.  
Anatolian Conference on Synthetic Organic Chemistry (ACSOC-II), 21 - 24 March 2016
- XVII. **Synthesis of New Mono-Benzimidazoles from Some [4 + 2] Cycloaddition Products**  
ÇAPAN İ., SERVİ S.  
Anatolian Conference on Synthetic Organic Chemistry (ACSOC-II), 21 - 24 March 2016
- XVIII. **Benzimidazol Süstitüe 1,3,4-Tiyadiazol ve N-Alkil Türevlerinin Sentezi**  
ÇAPAN İ., SERVİ S., YILDIRIM İ.  
24. Ulusal Kimya Kongresi, Turkey, 29 June 2010
- XIX. **Mikrodalga Destekli Benzimidazol Süstitüe 1,2,4-Triazol Türevlerinin ve Mannich Reaksiyonu Ürünlerinin Sentezi**  
ÇAPAN İ., SERVİ S., YILDIRIM İ.  
24. Ulusal Kimya Kongresi, Turkey, 29 June 2010
- XX. **Synthesis and Reactions of Some Pyrazole-3-Carboxylic Acid Derivatives with Grignard Reagent**  
KORKUSUZ E., ÇAPAN İ., YILDIRIM İ.  
Eleventh Tetrahedron Symposium, 06 June 2010

## Supported Projects

Çapan İ., Gümüş M., Tutar Y., Sert Y., Koca İ., Açıklın Coşkun K., TÜBİTAK Project, Kinoksalinon-Tiyazol Hibrit Yapılarının Tasarımı, Sentezi ve Antikanser Çalışmaları, 2022 - 2025

Çapan İ., Koca İ., Sert Y., Gülçin İ., TÜBİTAK Project, Doğal Ürün Squamolone Türevi Hibrit Moleküllerin Tasarımı Ve

Karbonik Anhidraz Aktivitesinin Araştırılması, 2021 - 2023

Çapan İ., Banoğlu E., KOSGEB, Pyriproxyfen Aktif Maddesinin Laboratuvar Koşullarında Sentezlenmesi, 2021 - 2022

BANOĞLU E., ÇAPAN İ., Project Supported by Higher Education Institutions, Çözünür Epoksit Hidrolaz Enzim İnhibitörlerinin Geliştirilmesi, 2020 - 2022

Olğaç A., Çapan İ., Banoğlu E., TUBITAK Project, Lökotrien Biyosentez İnhibitörlerinin Geliştirilmesi, 2020 - 2022

Çapan İ., Koca İ., Project Supported by Higher Education Institutions, Pirimidin Çekirdeği İçeren Yeni Organik Bileşiklerin Sentezi ve Karakterizasyonu , 2020 - 2021

Çapan İ., Açık L., Gümüş M., Aydın B., TUBITAK Project, Benzimidazol-Karbazol Temelli Yeni Hibrit Moleküllerin Sentezi Ve Dna Ile Etkileşimlerinin Araştırılması, 2020 - 2021

Çapan İ., Görgülü A. O. , Koran K., Tekin S., Sandal S., TUBITAK Project, Yeni Peptit Sübstitüentli Siklofosfazenlerin Sentezi, Karakterizasyonu, Sitotoksite ve DNA Hasarı İncelenmesi, 2018 - 2021

Çapan İ., Project Supported by Higher Education Institutions, Yeni Bir Seri Tiyosemikarbazit ve Triazol/Tiyadiazol Hibritine Sahip Karbazol Türevi Bileşiklerin Sentezi ve Antikanser Aktivitelerinin Gen İfade Düzeyinde Araştırılması, 2018 - 2021

ÇAPAN İ., Project Supported by Higher Education Institutions, Bazı [42] Siklokatılma Ürünlerinden Benzimidazol Türevlerinin Sentezi ve Anti-kanser Etkilerinin Araştırılması, 2017 - 2019

ÇAPAN İ., Project Supported by Higher Education Institutions, Antrasen ve Siklopentadien' in Diels-Alder Katılma Ürünlerinden Yeni Benzimidazol Türevlerinin Sentezi, 2016 - 2017

ÇAPAN İ., Project Supported by Higher Education Institutions, Bazı Yeni 2-İmidazolin Türevlerinin Sentezi, 2013 - 2017

## Patent

Çapan İ., Piriproksifen Sentezinde Yeni Bir Yöntem, Patent, CHAPTER A Human Needs, The Invention Recourse Number: 2022/006578 , Initial Registration, 2022

Banoğlu E., Olğaç A., Çapan İ., Kretzer C., Werz O., 5-Lipoksijenaz Aktive Edici Protein (FLAP) İnhibitörleri - 2, Patent, CHAPTER A Human Needs, The Invention Recourse Number: 2021/001958 , Initial Registration, 2021

## Memberships / Tasks in Scientific Organizations

Türkiye Kimya Derneği, Member, 2022 - Continues, Turkey

## Scientific Refereeing

CHEMISTRYSELECT, SCI Journal, May 2022

Future Medicinal Chemistry, SCI Journal, April 2022

EUROPEAN JOURNAL OF ORGANIC CHEMISTRY, National Scientific Refreed Journal, January 2022

## Scientific Research / Working Group Memberships

Banoğlu Research Group (Brg), Gazi University, Turkey, <https://brg428.wixsite.com/banoglu>, 2018 - Continues

## Citations

Total Citations (WOS):57

h-index (WOS):5

## **Non Academic Experience**

Business Establishment Private, Sente Chemical Company, R&D Center