

Prof. ALİ FAZIL YENİDÜNYA

Personal Information

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International Researcher IDs

ORCID: 0000-0002-9886-977X

ScopusID: 6603209374

Yoksis Researcher ID: 42080

Education Information

Doctorate, University of London-Kings College London, United Kingdom 1989 - 1992

Research Areas

Natural Sciences

Academic Titles / Tasks

Professor, Sivas Cumhuriyet University, Fen Fakültesi, Moleküler Biyoloji ve Genetik Bölümü, 2005 - Continues

Academic and Administrative Experience

Head of Department, Sivas Cumhuriyet University, Fen Fakültesi, Moleküler Biyoloji ve Genetik Bölümü, 2005 - 2008

Courses

Moleküler Mikrobiyoloji, Undergraduate, 2018 - 2019

Seminer Dersi, Postgraduate, 2018 - 2019

Bitirme Tezi, Undergraduate, 2019 - 2020

Mesleki İngilizce I, Undergraduate, 2019 - 2020

Mesleki İngilizce II, Undergraduate, 2018 - 2019

Moleküler Hücre Biyolojisi - I, Undergraduate, 2019 - 2020

Uzmanlık Alan Dersi, Postgraduate, 2019 - 2020

Uzmanlık Alan Dersi, Doctorate, 2017 - 2018

Temel Mikrobiyoloji, Undergraduate, 2018 - 2019

Rekombinant DNA Teknolojisi, Postgraduate, 2018 - 2019

İnsan Gen. ve Kanser Biyolojisi, Undergraduate, 2018 - 2019

Laboratuarda Evrim, Undergraduate, 2017 - 2018

Laboratuarda Yönlendirilmiş Evrim, Postgraduate, 2018 - 2019

Endüstriyel Farmasötik Biyoteknoloji ve Uygulama Alanları, Doctorate, 2016 - 2017

Gen ve Protein Evrimi, Doctorate, 2017 - 2018
Seminer Dersi, Doctorate, 2016 - 2017
Biyoteknoloji - II, Undergraduate, 2016 - 2017
Biyoteknoloji - I, Undergraduate, 2016 - 2017
İmmünoloji, Doctorate, 2013 - 2014
Uzmanlık Alan Dersi, Doctorate, 2013 - 2014
Tıbbi Biyoloji Ve Genetik, Associate Degree, 2009 - 2010
Tıbbi Biyoloji ve Genetik I, Undergraduate, 2010 - 2011
Moleküler Biyoloji ve Genetiğe Giriş I, Undergraduate, 2007 - 2008

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Removal of lead ions (Pb²⁺) from aqueous solution using chitosan/starch composite material: Experimental and density functional theory findings**
Çelik M. S., ÇAYLAK O., KÜTÜK N., YENİDÜNYA A. F., ÇETİNKAYA S., Maslov M. M., BATIR G. G.
Biomass Conversion and Biorefinery, vol.15, no.1, pp.1041-1056, 2025 (SCI-Expanded)
- II. **Removal of safranin O from wastewater using Streptomyces griseobrunneus dead biomass and in silico calculations**
Çelik M. S., KÜTÜK N., YENİDÜNYA A. F., ÇETİNKAYA S., TÜZÜN B.
Biomass Conversion and Biorefinery, vol.14, no.20, pp.25873-25884, 2024 (SCI-Expanded)
- III. **Biosorption of lead ions (Pb²⁺) from water samples using dried Lemna minor biomass: experimental and density functional theory studies**
KAYA S., ÇETİNKAYA S., Jalbani N. S., YENİDÜNYA A. F., KÜTÜK N., KASAKA E., Maslov M. M.
Biomass Conversion and Biorefinery, vol.14, no.15, pp.17603-17617, 2024 (SCI-Expanded)
- IV. **Experimental and Theoretical Evidence on the Amoebicidal Activity of Synthesized tRNA-Palmitic Acid Esters**
Aksu A., Çelik M. S., Akın Polat Z., Yenidünya A. F., Çetinkaya S., Tüzün B.
IRANIAN JOURNAL OF CHEMISTRY AND CHEMICAL ENGINEERING, vol.43, no.2, pp.695-706, 2024 (SCI-Expanded)
- V. **Immobilization of pectinase on chitosan-alginate-clay composite beads: Experimental, DFT and molecular docking studies**
Aksu A., Çetinkaya S., Fazıl Yenidünya A. F., Akkuş Çetinus Ş., Gezegen H., Tüzün B.
Journal of Molecular Liquids, vol.390, 2023 (SCI-Expanded)
- VI. **Biosorption of Rhodamine B dye from aqueous solution by Rhus coriaria L. plant: Equilibrium, kinetic, thermodynamic and DFT calculations**
Çelik M. S., Çetinus Ş., Yenidünya A. F., Çetinkaya S., Tüzün B.
Journal of Molecular Structure, vol.1272, 2023 (SCI-Expanded)
- VII. **Removal of Erythrosine B dye from wastewater by Penicillium italicum: experimental, DFT, and molecular docking studies**
ÇETİNKAYA S., Eyupoglu V., ÇETİNTAŞ H. İ., YENİDÜNYA A. F., KEBABCI Ö., TÜZÜN B.
Journal of Biomolecular Structure and Dynamics, vol.41, no.23, pp.14212-14223, 2023 (SCI-Expanded)
- VIII. **Tromethamine and dodecanol appear to be the major secondary metabolites of Streptomyces decoyicus M***
Çelik M. S., Aksu A., YENİDÜNYA A. F., ÇETİNKAYA S.
ARCHIVES OF MICROBIOLOGY, vol.204, no.8, 2022 (SCI-Expanded)
- IX. **Epichlorohydrin and tripolyphosphate-crosslinked chitosan-kaolin composite for Auramine O dye removal from aqueous solutions: Experimental study and DFT calculations**
Şenol Z. M., Çetinkaya S., Yenidünya A. F., Başoğlu-Ünal F., Ece A.
International Journal of Biological Macromolecules, vol.199, pp.318-330, 2022 (SCI-Expanded)
- X. **Esterification of Fructose-oleic Acid by tert-Butanol/Dimethyl Sulfoxide and by 2-Methyl-2-butanol/Dimethyl Sulfoxide.**

ÇETİNKAYA S., YENİDÜNYA A. F., Basoglu F., Polat Z., Savas S.

Journal of oleo science, vol.69, no.10, pp.1281-1285, 2020 (SCI-Expanded)

- XI. **Synthesis of Ribose - Oleic Acid Esters in the Presence- and Absence of *Candida antarctica* Lipase B**
Çetinkaya S., Yenidünya A. F., Başoğlu F., Saraç K.
Journal Of Oleo Science, vol.69, no.8, pp.907-912, 2020 (SCI-Expanded)
- XII. **Secondary Metabolites of an of *Streptomyces griseorubens* Isolate Are Predominantly Pyrrole- and Linoleic-acid like Compounds**
Çetinkaya S., Yenidünya A. F., Arslan K., Arslan D., Doğan Ö., Daştan T.
JOURNAL OF OLEO SCIENCE, vol.69, no.10, pp.1273-1280, 2020 (SCI-Expanded)
- XIII. **D-Glucose-fatty Acid Ester Synthesis with or without a Biocatalyst in the Same Organic Media**
ÇETİNKAYA S., YENİDÜNYA A. F., Basoglu F., Sarac K.
JOURNAL OF OLEO SCIENCE, vol.69, no.7, pp.737-742, 2020 (SCI-Expanded)
- XIV. **Production, purification, and characterization of metalloprotease from *Candida kefyr* 41 PSB**
Yavuz S., KOCABAY S., ÇETİNKAYA S., AKKAYA B., AKKAYA R., YENİDÜNYA A. F., BAKICI M. Z.
INTERNATIONAL JOURNAL OF BIOLOGICAL MACROMOLECULES, vol.94, pp.106-113, 2017 (SCI-Expanded)
- XV. **Characterization of thermostable beta-amylase isozymes from *Lactobacillus fermentum***
KOCABAY S., ÇETİNKAYA S., AKKAYA B., YENİDÜNYA A. F.
INTERNATIONAL JOURNAL OF BIOLOGICAL MACROMOLECULES, vol.93, pp.195-202, 2016 (SCI-Expanded)
- XVI. **High genetic and phenotypic variability of *Streptococcus thermophilus* strains isolated from artisanal Yuruk yoghurts**
Erkus O., Okuklu B., YENİDÜNYA A. F., Harsa S.
LWT-FOOD SCIENCE AND TECHNOLOGY, vol.58, no.2, pp.348-354, 2014 (SCI-Expanded)
- XVII. **Cytotoxicity of three maleic anhydride copolymers and common solvents used for polymer solvation**
KARAKUŞ G., Zengin H., Polat Z., YENİDÜNYA A. F., Aydin S.
POLYMER BULLETIN, vol.70, no.5, pp.1591-1612, 2013 (SCI-Expanded)
- XVIII. **Synthesis, characterization and cytotoxicity of novel modified poly[(maleic anhydride)-co-(vinyl acetate)]/noradrenaline conjugate**
KARAKUŞ G., Polat Z., YENİDÜNYA A. F., Zengin H., Karakus C. B.
POLYMER INTERNATIONAL, vol.62, no.3, pp.492-500, 2013 (SCI-Expanded)
- XIX. **Synthesis, characterization, and assessment of cytotoxic, antiproliferative, and antiangiogenic effects of a novel procainamide hydrochloride-poly(maleic anhydride-co-styrene) conjugate.**
KARAKUŞ G., Polat Z., YAĞLIOĞLU A. Ş., KARAHAN M., YENİDÜNYA A. F.
Journal of biomaterials science. Polymer edition, vol.24, no.10, pp.1260-76, 2013 (SCI-Expanded)
- XX. **Production and immobilization of a novel thermoalkalophilic extracellular amylase from bacilli isolate**
AKKAYA B., YENİDÜNYA A. F., AKKAYA R.
INTERNATIONAL JOURNAL OF BIOLOGICAL MACROMOLECULES, vol.50, no.4, pp.991-995, 2012 (SCI-Expanded)
- XXI. **Properties of an extracellular lipase from a traditional yoghurt yeast**
AKKAYA B., YENİDÜNYA A. F.
TURKISH JOURNAL OF BIOCHEMISTRY-TURK BIYOKIMYA DERGISI, vol.37, no.1, pp.62-67, 2012 (SCI-Expanded)
- XXII. **Modification of Maleic Anhydride-Styrene Copolymer with Noradrenaline by Chemical and Enzymatic Methods**
KARAKUŞ G., YENİDÜNYA A. F., Zengin H., Polat Z.
JOURNAL OF APPLIED POLYMER SCIENCE, vol.122, no.4, pp.2821-2828, 2011 (SCI-Expanded)
- XXIII. **Amoebicidal Effect of Poly Maleic Anhydride Co Vinyl Acetate Copolymer on *Entamoeba Histolytica* Trophozoites**
KARAKUŞ G., YENİDÜNYA A. F., Zengin H. B., MALATYALI E., ÖZÇELİK S.
Medicinal Chemistry, vol.1, no.1, 2011 (SCI-Expanded)

Articles Published in Other Journals

- I. **Purification and characterization of 1-dodecanol from an isolate of *Streptomyces viridodiastaticus***
ÇETİNKAYA S., YENİDÜNYA A. F., AKSU A., ÇELİK M. S.
Biocatalysis and Agricultural Biotechnology, vol.34, 2021 (ESCI)
- II. **An investigation of the probiotic properties of *Lactobacillus fermentum***
ÇETİNKAYA S., KOCABAY S., YENİDÜNYA A. F.
International Journal of Life Sciences and Biotechnology, vol.3, no.2, pp.180-190, 2020 (Peer-Reviewed Journal)

Books

- I. **Deep Learning and Machine Learning and Their Application on Computational Chemistry.**
Çetinkaya H. F., Yenidünya A. F., Çetinkaya S., Tüzün B.
in: Emerging Engineering Technologies and Industrial Applications, Younes El Kacimi, Khaoula Alaoui, Editor, IGI Global yayınevi, Tanjah, pp.21-35, 2024
- II. **Deep Learning and Machine Learning and Their Application on Computational Chemistry**
Çetinkaya H. F., YENİDÜNYA A. F., ÇETİNKAYA S., TÜZÜN B.
in: Emerging Engineering Technologies and Industrial Applications, Alaoui Khaoula, Kacimi Younes El, Editor, IGI global, pp.21-35, 2024
- III. **Omicron: Emergence, Detection, and Response**
ÇETİNKAYA S., ÖZBİLÜM ŞAHİN N., YENİDÜNYA A. F., TÜZÜN B.
in: Advances in Health and Disease, Duncan, Lowell T., Editor, Nova Science Publishers, New York, pp.161-197, 2023
- IV. **CRISPR/CAS IMMUNE SYSTEM WITH ITS MECHANISM, APPLICATIONS AND ETHICS ASSESSMENT**
KEBABCİ Ö., YENİDÜNYA A. F.
in: DEPTHS OF SCIENCE, Cenk YÜCEL, Editor, Iksad Publications, Ankara, pp.39-74, 2022
- V. **BIOLOGY OF NATURAL AND SYNTHETIC ANTIBIOTICS AND THEIR CURRENT APPLICATION STATUS**
YENİDÜNYA A. F., ÇETİNKAYA S.
in: DEPTHS OF SCIENCE, YÜCEL, Cenk, Editor, iksad publishing house, Ankara, pp.91-121, 2022
- VI. **CRISPR/CAS IMMUNE SYSTEM WITH ITS MECHANISM, APPLICATIONS AND ETHICS ASSESSMENT**
KEBABCİ Ö., YENİDÜNYA A. F.
in: DEPTHS OF SCIENCE, Cenk YÜCEL, Editor, Iksad Publications, Ankara, pp.39-74, 2022
- VII. **GENETIC INTERPLAY BETWEEN THE DAIRY STREPTOCOCCUS THERMOPHILUS AND ITS PHAGES**
ÇETİNKAYA S., YENİDÜNYA A. F.
in: RECENT ADVANCES IN BIOLOGICAL SCIENCES, KÜLAHÇI Meryem Burcu, Editor, Iksad, Ankara, pp.35-61, 2021
- VIII. **Organik Kimyada Biyotransformasyonlar**
YENİDÜNYA A. F., BOZTUĞ A., ÇETİNKAYA S., ÖZKAYNAK Ö.
Eğitim Yayınevi, Konya, 2020
- IX. **Structure and Function of Proton Pumps**
ÇETİNKAYA S., YENİDÜNYA A. F.
in: Current Studies at Positive Sciences, Mehriban Emek, İlhan Şahin, Editor, Iksad Publications, pp.284-307, 2020

Refereed Congress / Symposium Publications in Proceedings

- I. **ISOLATION OF TRADITIONAL KEFIR YEASTS AND INVESTIGATION OF PROBIOTIC PROPERTIES**
KAYA N., Dere T., YENİDÜNYA A. F., ÇETİNKAYA S.
2nd International Karatekin Science and Technology Conference, Çankırı, Turkey, 21 December 2023
- II. **Immobilization of Microbial Pectinase to Chitosan-Based Composite: Experimental, DFT, and Molecular Docking Studies**

AKSU A., ÇETİNKAYA S., YENİDÜNYA A. F., ÇETİNUS Ş., GEZEĞEN H., TÜZÜN B.

2nd International Conference on Engineering, Natural and Social Sciences, Konya, Turkey, 04 April 2023

- III. **Purification of Yeast Metalloprotease by Affinity Chromatography**
Akkaya B., Yenidünya A. F., Akkaya R.
IV. Ulusal Afinite Teknikleri Kongresi konferansı (IV. National Affinity Techniques Congress conference), Konya, Turkey, 23 - 27 June 2014
- IV. **INVESTIGATION OF ANTI-CARCINOGENIC ACTIVITIES OF STREPTOMYCES ISOLATES**
DURNA DAŞTAN S., ÇETİNKAYA S., DAŞTAN T., TARHAN Ö., YENİDÜNYA A. F.
1ST cancer days, Sivas, Turkey, 18 - 20 September 2019
- V. **Organic Solvent Tolerant B-Amylase From Lactobacillus Fermentum**
KOCABAY S., AKKAYA B., YENİDÜNYA A. F., ÇETİNKAYA S.
4th International Türk-Pak Conference Chemical Sciences (ITPCCS 2017), 26 - 28 October 2017
- VI. **Screening Of Potential Probiotic Properties Of Lactobacillus Fermentum Isolated From Newborn Baby Gaita**
KOCABAY S., ÇETİNKAYA S., AKKAYA B., YENİDÜNYA A. F.
8th International Advanced Technologies Symposium, 19 - 21 October 2017
- VII. **Investigations of Circulating Expression Levels mir31 and mir204 in Coronary Artery Disease**
ÖZBİLÜM ŞAHİN N., ARSLAN S., AYDEMİR E. I., BETON O., YENİDÜNYA A. F.
VI. International Congress of Molecular Medicine, 22 - 25 May 2017
- VIII. **Investigation of Circulating Expression Levels miR31 and miR204 In Coronary Artery Disease**
Özbilüm Şahin N., Arslan S., Aydemir E. I., Beton O., Yenidünya A. F.
VI. International Congress of Molecular Medicine, İstanbul, Turkey, 22 - 25 May 2017, pp.90
- IX. **Genotypic and Phenotypic Characterization of Bacteria in Infant Stools**
Akkaya B., Kocabay S., Yenidünya A. F.
3. Ulusal Klinik Mikrobiyoloji Kongresi, İstanbul, Turkey, 18 - 22 November 2015
- X. **Characterization of Enzyme Produced Isolates From Fecal Samples**
AKKAYA B., ÇETİNKAYA S., YENİDÜNYA A. F.
3rd International Congress of Molecular Biology and Biotechnology, 2 - 06 June 2014
- XI. **Wnt antagonisti gen polimorfizmleri ve meme kanseri arasındaki ilişkinin araştırılması**
DÖNMEZ G., YILMAZ M., KAÇAN T., ÇINAR Z., KILIÇKAP S., YENİDÜNYA A. F.
XIII. Ulusal Tıbbi Biyoloji ve Genetik Kongresi, Turkey, 27 - 30 October 2013
- XII. **Maleik Anhidrit-Vinil Asetat Kopolimerinin Sentezi, Karakterizasyonu, Noradrenalin ile Türevlendirilmesi ve Sitotoksik Potansiyellerinin Karşılaştırmalı Olarak İncelenmesi**
Karakuş G., Akın Polat Z., Zengin H. B., Yenidünya A. F.
25. Ulusal Kimya Kongresi (Erzurum), Erzurum, Turkey, 27 June - 02 July 2011
- XIII. **Serbest Radikal Kopolimerleşmesi ile Sentezlenen Üç Farklı Maleik Anhidrit Kopolimerinin Sentezi Karakterizasyonu ve Sitotoksik Potansiyellerinin İncelenmesi**
Karakuş G., Zengin H. B., Akın Polat Z., Yenidünya A. F.
25. Ulusal Kimya Kongresi (Erzurum), Erzurum, Turkey, 27 June - 02 July 2011
- XIV. **Production and Immobilization of a Novel hyper thermoalkalophilic extracellular amylase**
AKKAYA B., YENİDÜNYA A. F.
International Conference on Enzyme Science and Technology, ICEST 2011, 13 - 17 June 2011

Supported Projects

Çetinkaya S., Yenidünya A. F., Arslan D., Project Supported by Higher Education Institutions, Actinobacteria Üyelerinden Pigment Üretimi, Kültür Optimizasyonu ve Pigment İzolasyonu, 2020 - 2022

Çetinkaya S., Yenidünya A. F., Arslan K., Project Supported by Higher Education Institutions, Actinobacteria Üyelerinin Beyaz ve Kırmızı Toprak Örneklerinden İzolasyonu, Morfolojik, Fizyolojik, Biyokimyasal ve Moleküler Karakterizasyonu, 2020 - 2021

Çetinkaya S., Yenidünya A. F., Tarhan Ö., Project Supported by Higher Education Institutions, Streptomyces Cinsine Ait Tür Üyelerinden Özütleme İkincil Metabolitlerin Saflaştırması ve Molekül Yapısının Belirlenmesi, 2019 - 2021

Çetinkaya S., Yenidünya A. F., Akın Polat Z., Saraç K., Başoğlu F., Durna Daştan S., Project Supported by Higher Education Institutions, Synthesis of transfer RNA-fatty acid esters and testing of biologically active molecular potentials on pathogenic Acanthamoeba and Trichomonas species., 2019 - 2021

Çetinkaya S., Yenidünya A. F., Savaş S., Berber S., Arslan K., Project Supported by Higher Education Institutions, Toprak Örneklerinden Bacillus clausi Suşlarının İzolasyonu, Genotipik ve Fenotipik Karakterizasyonu, 2018 - 2020

Yenidünya A. F., Çetinkaya S., Project Supported by Higher Education Institutions, Biyoaktif Molekül Analoglarının Yapımında Kullanılabilir Şeker Esterlerinin Sentezi, 2016 - 2018

Özbilüm Şahin N., Berkan Ö., Yenidünya A. F., Project Supported by Higher Education Institutions, Aterosklerozlu Hastaların Koroner Arter Plaklarında ve Dolaşımlarındaki Bazı mikroRNA ların İfade Düzeylerinin İncelenmesi, 2015 - 2018

Çetinkaya S., Yenidünya A. F., Project Supported by Higher Education Institutions, Bazı Bitkisel Fenolik Asitlerin In Vitro Aktioksidan Aktivitelerinin İncelenmesi, 2014 - 2015

Yenidünya A. F., Çetinkaya S., Project Supported by Higher Education Institutions, Fekal örneklerden Proteaz Üreten İzolatların Genotipik ve Fenotipik Karakterizasyonu, 2014 - 2015

Metrics

Publication: 48
Citation (WoS): 118
Citation (Scopus): 237
H-Index (WoS): 7
H-Index (Scopus): 10

Non Academic Experience

Cumhuriyet Üniversitesi, Profesör/Öğretim elemanı
Cumhuriyet Üniversitesi, Doçent/Profesör
Cumhuriyet Üniversitesi, Yrd. Doçent/Doçent
İzmir Yüksek Teknoloji Enstitüsü, Yrd. Doçent
Danimarka Eczacılık Yüksek Okulu, Araştırmacı Asistan Profesör
TÜBİTAK/MAM, Uzman Araştırmacı
ICGEB/TRİESTE, Uzman Araştırmacı