

Asst. Prof. MUSTAFA ERBAKAN

Personal Information

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International Researcher IDs

ScholarID: UBCxCSAAAAJ

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Publons / Web Of Science ResearcherID: A-5812-2016

ScopusID: 34868137800

Yoksis Researcher ID: 238898

Education Information

Doctorate, Pennsylvania State University, Intercollege Graduate Programs , Bioengineering, United States Of America
2008 - 2014

Postgraduate, Cukurova University, Fen Bilimleri Enstitüsü, Kimya (YI) (Tezli), Turkey 2004 - 2007

Undergraduate, Cukurova University, Fen-Edebiyat Fakültesi, Kimya Bölümü, Turkey 2000 - 2004

Foreign Languages

English, C1 Advanced

Dissertations

Doctorate, Advancing Rhodobacter Sphaeroides for Expression of Industrially and Medically Relevant Membrane Proteins, Pennsylvania State University, Bioengineering İn Intercollege Graduate Programs , 2014

Postgraduate, Retinal guanilat siklaz aktivitesi üzerine ATP, AMP-PNP ve all-trans retinal etkisinin incelenmesi, Cukurova University, Fen Bilimleri Enstitüsü, Kimya (YI) (Tezli), 2007

Research Areas

Biotechnology, Bioprocess Separation Processes, Biotechnological Processes and Fermentation Technology, Metabolic Engineering, Membrane Technology, Biophysics, Cell Membrane and Liposomes, Biotechnology, Biomaterial, Bioreactor, Biosensor, Environmental Biotechnology, Industrial Biotechnology, Microbial Biotechnology, Bacteriology, Molecular Biology and Genetics, Genetic Engineering, Protein Engineering, Biochemistry

Academic Titles / Tasks

Assistant Professor, Yozgat Bozok University, Mühendislik-Mimarlık Fakültesi, Biyosistem Mühendisliği, 2016 - Continues

Research Assistant, Yozgat Bozok University, Mühendislik-Mimarlık Fakültesi, Biyosistem Mühendisliği, 2015 - 2016

Research Assistant, Pennsylvania State University, Intercollege Graduate Programs, Bioengineering, 2008 - 2014

Research Assistant, Adiyaman University, Faculty Of Arts And Sciences, Department Of Chemistry, 2007 - 2008

Research Assistant, Cukurova University, Fen Bilimleri Enstitüsü, Kimya (YI) (Tezli), 2004 - 2007

Academic and Administrative Experience

Head of Department, Yozgat Bozok University, Mühendislik-Mimarlık Fakültesi, Biyosistem Mühendisliği, 2021 - Continues

Assistant Manager of Research and Application Center, Yozgat Bozok University, Bilim ve Teknoloji Uygulama ve Araştırma Merkezi, 2020 - Continues

Birim Kalite Komisyonu Üyesi, Yozgat Bozok University, Mühendislik-Mimarlık Fakültesi, Biyosistem Mühendisliği, 2019 - Continues

Deputy Head of Department, Yozgat Bozok University, Mühendislik-Mimarlık Fakültesi, Biyosistem Mühendisliği, 2016 - 2021

Courses

Biosensor Principles and Applications, Postgraduate, 2023 - 2024

BİYOPROSES MÜHENDİSLİĞİNDE ÖZEL KONULAR, Postgraduate, 2023 - 2024

MALZEME BİLİMİ VE MÜHENDİSLİĞİNDE ANALİTİK YÖNTEMLER, Postgraduate, 2023 - 2024

Bioinformatics, Undergraduate, 2023 - 2024

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Bacterial species impact on self-healing of cement based materials in marine structures**
Erbakan M., Özel B. F., Şahin Y.
Materials and Structures/Materiaux et Constructions, vol.57, no.8, 2024 (SCI-Expanded)
- II. **Microbial membrane transport proteins and their biotechnological applications**
Özkan M., Yılmaz H., Ergenekon P., Erdoğan E. M., ERBAKAN M.
World Journal of Microbiology and Biotechnology, vol.40, no.2, 2024 (SCI-Expanded)
- III. **Marker-assisted selection and validation of DNA markers associated with cadmium content in durum wheat germplasm**
Alsaleh A., Baloch F. S., Sesiz U., Nadeem M. A., Hatipoğlu R., Erbakan M., Özkan H.
CROP & PASTURE SCIENCE, vol.73, pp.943-956, 2022 (SCI-Expanded)
- IV. **Use of halophilic aquaporin for preparation of biomimetic thin film composite membrane**
Calicioglu N. G., Ozdemir G. O., Ozturk A., Yildiz A., Yılmaz H., Ergenekon P., Erbakan M., Erhan E., Özkan M.
JOURNAL OF MEMBRANE SCIENCE, vol.568, pp.105-112, 2018 (SCI-Expanded)
- V. **Membrane Protein Insertion into and Compatibility with Biomimetic Membranes**
Ren T., Erbakan M., Shen Y., Barbieri E., Saboe P., Feroz H., Yan H., McCuskey S., Hall J. F., Schantz A. B., et al.
ADVANCED BIOSYSTEMS, vol.1, no.7, 2017 (SCI-Expanded)
- VI. **Advancing Rhodobacter sphaeroides as a platform for expression of functional membrane proteins**
Erbakan M., Curtis B. S., Nixon B. T., Kumar M., Curtis W. R.
PROTEIN EXPRESSION AND PURIFICATION, vol.115, pp.109-117, 2015 (SCI-Expanded)
- VII. **Highly permeable artificial water channels that can self-assemble into two-dimensional arrays**
Shen Y., Si W., Erbakan M., Decker K., De Zorzi R., Saboe P. O., Kang Y. J., Majd S., Butler P. J., Walz T., et al.
PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA, vol.112, no.32, pp.9810-9815, 2015 (SCI-Expanded)
- VIII. **Biomimetic membranes: A review**
Shen Y., Saboe P. O., Sines I. T., Erbakan M., Kumar M.
JOURNAL OF MEMBRANE SCIENCE, vol.454, pp.359-381, 2014 (SCI-Expanded)

- IX. **Molecular Cloning, Overexpression and Characterization of a Novel Water Channel Protein from *Rhodobacter sphaeroides***
Erbakan M., Shen Y., Grzelakowski M., Butler P. J., Kumar M., Curtis W. R.
PLOS ONE, vol.9, no.1, 2014 (SCI-Expanded)
- X. **Antioxidant Enzyme Status in Human Cystic Echinococcosis**
Yücebilgiç G., Bilgin R., Erbakan M., Koltaş İ. S., Parsak C. K.
Asian Journal Of Chemistry, vol.21, no.7, pp.5453, 2009 (SCI-Expanded)

Articles Published in Other Journals

- I. **Nanoscale structural analyses on Rod Outer Segments (ROS) membranes and retina of bovine eye: 3D structure of photoreceptor nanodomains**
Orujalipoor I., Erbakan M., İde S.
Journal of Nanomedicine, vol.3, no.1, pp.1-8, 2020 (Peer-Reviewed Journal)

Refereed Congress / Symposium Publications in Proceedings

- I. **Isolation, Characterization and Antimicrobial Activity of Bacteriocin Producing Lactic Acid Bacteria from Raw Water Buffalo Milk**
ERBAKAN M., ÖZAVCI V.
INSAC International Researches Congress on Natural and Engineering Sciences (INSAC-IRNES'23), Konya, Turkey, 19 March 2023, pp.202
- II. **Improving Recombinant Membrane Protein Expression in *Rhodobacter* sp. via Utilization of MISTIC Protein Fusion**
ERBAKAN M., ÖZAVCI V.
INSAC International Researches Congress on Natural and Engineering Sciences (INSAC-IRNES'23), Konya, Turkey, 19 March 2023, pp.204
- III. **A Method to Evaluate Membrane Protein Compatibility with Biomimetic Membranes**
Ren T., ERBAKAN M., Grzelakowski M., Grzelakowski M., Butler P., Kumar M.
A Method to Evaluate Membrane Protein Compatibility with Biomimetic Membranes, Bellevue, WA, United States Of America, 23 May 2016
- IV. **Measurement of Aquaporin Z Compatibility with Biomimetic Membranes Using a Developed Membrane Protein Compatibility Evaluation Method**
Ren T., ERBAKAN M., Grzelakowski M., Butler P., Kumar M.
26th Annual Meeting of the North American Membrane Society, NAMS 2016, Bellevue, WA, United States Of America, 23 March 2023
- V. **A New Fluorescence Based Method for Membrane Protein Single Molecule Property Determination**
Ren T., ERBAKAN M., Grzelakowski M., Kumar M.
Biophysical Society 59th Annual Meeting, Baltimore, MD, United States Of America, 7 - 11 February 2015
- VI. **Artificial Water Channels Can they reach the performance of biological channels**
SHEN Y., ERBAKAN M., DECKER K., AKSIMENTIEV A., HOU J., KUMAR M.
24th Annual North American Membrane Society Meeting, HOUSTON, TX, 31 May - 04 June 2014
- VII. **Single Molecule Transport Characterization of a High Permeable Artificial Water Channel**
SHEN Y., ERBAKAN M., MEMINGER C., HOU J., KUMAR M.
Council for Chemical Research Annual Meeting, Alexandria, Canada, 18 - 20 May 2014
- VIII. **Evaluating a Novel Aquaporin From *R. sphaeroides* for Biomimetic Membrane Applications**
ERBAKAN M., SHEN Y., BUTLER P., KUMAR M., CURTIS W.
American Institute of Chemical Engineers Annual Meeting, San-Francisco, Costa Rica, 3 - 08 November 2013
- IX. **Use of Fluorescent Protein Fusions to Optimize Membrane Protein Expression in Anaerobic**

Photoheterotrophic Rhodobacter

Escotet M., ERBAKAN M., Kumar M., Curtis W.

2013 American Institute of Chemical Engineers Annual Meeting, San-Francisco, Costa Rica, 3 - 08 November 2013

- X. **Supported lipid aquaporin crystal based biomimetic membranes for desalination**
SHEN Y., EDWARDS A., SABOE P., ERBAKAN M., KUMAR M.
Membranes: Materials & Processes, Gordon Research Conference and Seminar, NEW LONDON, NH, United States Of America, 29 July - 03 August 2012
- XI. **Expression and Characterization of a Novel Water Channel Protein from Rhodobacter sphaeroides**
ERBAKAN M., KUMAR M., CURTIS W.
Pennsylvania State University, Bioengineering Department Symposium, UNIVERSITY PARK, PA, United States Of America, 22 April 2012
- XII. **Levels of malondialdehyde in vivax malaria**
BİLGİN R., ERBAKAN M., KOLTAŞ İ. S., YÜCEBİLGİÇ G., TÜKEL S. S.
14 th Meeting of the Balkan Clinical Laboratory Federation, SOFYA, Bulgaria, 27 - 30 September 2006
- XIII. **Serum catalase levels in human cystic echinococcosis**
YÜCEBİLGİÇ G., KOLTAŞ İ. S., ERBAKAN M., BİLGİN R., PARSAK C. K.
14 th Meeting of the Balkan Clinical Laboratory Federation, SOFYA, Bulgaria, 27 - 30 September 2006

Metrics

Publication: 24

Citation (WoS): 411

Citation (Scopus): 533

H-Index (WoS): 6

H-Index (Scopus): 6