

**Assoc. Prof. Mehmet Emin
ARZUTUĞ**



Personal Information

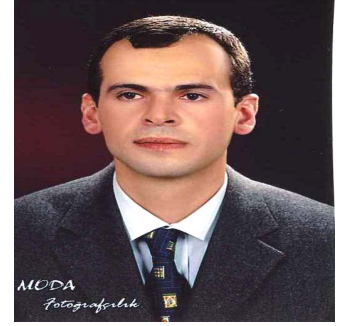
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Yakutiye / ERZURUM



International Researcher IDs

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Education Information

Doctorate, Ataturk University, Fen Bilimleri, Kimya Mühendisliği, Turkey 1996 - 2003

Postgraduate, Ataturk University, Fen Bilimleri, Kimya Mühendisliği, Turkey 1993 - 1996

Undergraduate, Ataturk University, Mühendislik Fakültesi, Kimya Mühendisliği, Turkey
1989 - 1993

Foreign Languages

English, B1 Intermediate

Certificates, Courses and Trainings

IT, Sertifikalı KVKK Eğitimi', Atatürk University- Continuing Education Application and Research Center, 2022

Dissertations

Doctorate, Çarpan Swirl Jetlerde Kütle Transferi, Atatürk Üniversitesi, Mühendislik Fakültesi, Kimya Mühendisliği, 2003

Postgraduate, AMONYAK GAZI İLE DOYURULMUŞ AMONYAK ÇÖZELTİLERİNDE MALAHİT CEVHERİNİN
ÇÖZÜNÜRLÜĞÜNÜN İNCELENMESİ, Atatürk Üniversitesi, Mühendislik Fakültesi, Kimya Mühendisliği, 1996

Research Areas

Chemical Engineering and Technology, Basic Operations and Thermodynamics, Fluid Mechanics, Heat Transfer, Mass
Transfer, Transport Events, Engineering and Technology

Academic Titles / Tasks

Associate Professor, Ataturk University, Mühendislik Fakültesi, Kimya Mühendisliği, 2016 - Continues
Assistant Professor, Ataturk University, Mühendislik Fakültesi, Kimya Mühendisliği, 2004 - 2016
Research Assistant PhD, Ataturk University, Mühendislik Fakültesi, Kimya Mühendisliği, 2003 - 2004
Research Assistant, Ataturk University, Mühendislik Fakültesi, Kimya Mühendisliği, 1995 - 2003

Academic and Administrative Experience

Visiting Scholar, University of Waterloo, Engineering Faculty, Chemical Engineering Department , 2008 - 2010

Courses

Yakıt Pilleri, Postgraduate, 2022 - 2023
Transport Phenomena-2, Doctorate, 2022 - 2023
Kütle ve Enerji Denklikleri, Undergraduate, 2023 - 2024
Mass Transfer, Undergraduate, 2022 - 2023
Fuel Cells, Postgraduate, 2023 - 2024
Isı Transferi, Undergraduate, 2022 - 2023
Fuel Cells, Postgraduate, 2021 - 2022
Mass Transfer, Undergraduate, 2021 - 2022
Isı Transferi (Heat Transfer), Undergraduate, 2021 - 2022
Yakıt Pilleri (Fuel Cells), Postgraduate, 2021 - 2022
Kütle Transferi (Mass Transfer), Undergraduate, 2020 - 2021
Bitirme Projesi-2, Undergraduate, 2020 - 2021
Kimya Mühendisliği Laboratuvarı-1, Undergraduate, 2020 - 2021
Transport Phenomena-2, Doctorate, 2019 - 2020
Fuel Cells, Postgraduate, 2019 - 2020
Genel Kimya, Undergraduate, 2020 - 2021
Akışkanlar Mekaniği, Undergraduate, 2020 - 2021
Seperation Processes-2, Undergraduate, 2019 - 2020
Fuel Cells, Postgraduate, 2020 - 2021
Genel Kimya, Undergraduate, 2020 - 2021
Chemical Engineering Lab.-1, Undergraduate, 2019 - 2020
Taşınım Olayları-II, Doctorate, 2018 - 2019
Yakıt Pilleri, Postgraduate, 2018 - 2019
Kimya Mühendisliği Termodinamiği, Undergraduate, 2017 - 2018
Isı Transferi, Undergraduate, 2016 - 2017
Kütle Transferi, Undergraduate, 2015 - 2016
Kimya Mühendisliği Tasarım-I, Undergraduate, 2015 - 2016
Analtik Kimya, Undergraduate, 2013 - 2014
Kimyasal Reaksiyonlu Kütle Transferi, Doctorate, 2013 - 2014
İleri kimya Müh. Termodinamiği, Postgraduate, 2012 - 2013
Mühendislik Termodinamiği, Undergraduate, 2011 - 2012
Elektrokimya, Undergraduate, 2005 - 2006

Advising Theses

Arzutuğ M. E., Adıgüzel N., Experimental Investigation of Parameters Affecting Heat Transfer in Double Pipe Heat Exchangers with Active Techniques, Doctorate, G.GÜLDEMİR(Student), Continues

Arzutuğ M. E., BOKSİT VE DEMİR CEVHERİNİN ÇİMENTONUN HİDRATASYON ISISI, FİZİKSEL VE MEKANİKSEL ÖZELLİKLERİ ÜZERİNE ETKİSİNİN ARAŞTIRILMASI, Postgraduate, B.ŞEKER(Student), 2021
Arzutuğ M. E., Daldırılmamış çarpan jetlerde elektrokimyasal kaplama, Postgraduate, U.KAHRAMAN(Student), 2019
Arzutuğ M. E., Farklı açılarda Rushton türbinleri kullanılarak karıştırılan dikey silindirik ceketli reaktörlerde sınırlayıcı akım difüzyon tekniği ile cidarda ve tabanda sıcaklık dağılımının belirlenmesi, Postgraduate, M.SALMAN(Student), 2019
ARZUTUĞ M. E., DALDIRILMIŞ ÇARPAN JETLERDE KÜTLE TRANSFERİ, Postgraduate, B.Solak(Student), 2017
ARZUTUĞ M. E., KOK FIRIN GAZI PROSESLERİ ve EK TESİSLERİ, Postgraduate, M.Çakır(Student), 2006

Jury Memberships

Doctorate, Doctorate, Atatürk Üniversitesi, December, 2022
PhD Thesis Monitoring Committee Member, PhD Thesis Monitoring Committee Member, Atatürk Üniversitesi, August, 2022
PhD Thesis Monitoring Committee Member, PhD Thesis Monitoring Committee Member, Atatürk Üniversitesi, January, 2022
PhD Thesis Monitoring Committee Member, PhD Thesis Monitoring Committee Member, Atatürk Üniversitesi, June, 2021
PhD Thesis Monitoring Committee Member, PhD Thesis Monitoring Committee Member, Atatürk Üniversitesi, June, 2021
Doctorate, Doctorate, Atatürk Üniversitesi, December, 2020
Doctorate, Doctorate, Atatürk Üniversitesi, October, 2020

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Design of a CPU Heat Sink with Minichannel-Fins & its Thermal Analysis**
ARZUTUĞ M. E.
Polish Journal of Chemical Technology, vol.25, no.3, pp.89-100, 2023 (SCI-Expanded)
- II. **Hydrofluoric acid and sodium hydroxide production by bipolar membrane electro dialysis**
Erkmen J., Yapici S., ARZUTUĞ M. E., AYDIN O. B., ATA O. N., Oner M. R.
DESALINATION AND WATER TREATMENT, vol.57, no.43, pp.20254-20260, 2016 (SCI-Expanded)
- III. **Determination of the Morphological Properties of Electroplated Nickel Coatings Obtained Using Impinging Jet Electrode**
ARZUTUĞ M. E.
JOURNAL OF THE CHEMICAL SOCIETY OF PAKISTAN, vol.37, no.2, pp.395-406, 2015 (SCI-Expanded)
- IV. **Pressure drop and point mass transfer in a rectangular microchannel**
ERGU O. B., ŞARA O. N., YAPICI S., ARZUTUĞ M. E.
INTERNATIONAL COMMUNICATIONS IN HEAT AND MASS TRANSFER, vol.36, no.6, pp.618-623, 2009 (SCI-Expanded)
- V. **Experimental study of laminar forced convective mass transfer and pressuredrop in microtubes**
ŞARA O. N., Ö BARLAY E., ARZUTUĞ M. E., YAPICI S.
International Journal Of Thermal Sciences, vol.48, pp.1894-1900, 2009 (SCI-Expanded)
- VI. **Electrochemical Mass Transfer in Impinging Swirl Jets**
ARZUTUĞ M. E., YAPICI S.
INDUSTRIAL & ENGINEERING CHEMISTRY RESEARCH, vol.48, no.3, pp.1593-1602, 2009 (SCI-Expanded)
- VII. **A comparison of mass transfer between a plate and submerged conventional and multichannel impinging jets**
Arzutug M. E., Yapici S., KOCAKERİM M. M.
INTERNATIONAL COMMUNICATIONS IN HEAT AND MASS TRANSFER, vol.32, no.6, pp.842-854, 2005 (SCI-Expanded)
- VIII. **Leaching of malachite ore in NH₃-saturated water**
ARZUTUĞ M. E., KOCAKERİM M. M., ÇOPUR M.

Articles Published in Other Journals

- I. **A new application area of electrochemical limiting diffusion current technique: measurement of mixing time and effect of some parameters**
Aydin O., ARZUTUĞ M. E., YAPICI S.
SN APPLIED SCIENCES, vol.1, no.11, 2019 (ESCI)
- II. **THE DEVELOPMENT OF MICROSTRUCTURE IN ELECTROLYTIC COATINGS PRODUCED USING IMPINGING JET ELECTRODE.**
Arzutuğ M. E.
JOURNAL OF QAQAZ UNIVERSITY- CHEMISTRY AND BIOLOGY, vol.1, no.1, pp.14-22, 2013 (Peer-Reviewed Journal)
- III. **Konvansiyonel ve Swirl Çarpan Jetlerde Kütle Transferi**
ARZUTUĞ M. E., YAPICI S.
BALIKESİR ÜNİVERSİTESİ FEN BİLİMLERİ ENSTİTÜSÜ DERGİSİ, vol.9, pp.111-124, 2007 (Peer-Reviewed Journal)
- IV. **Mikro kanallarda basınç düşüşü ve ısı kütle aktarımı II Taşınım ile Isı ve kütle aktarımı**
ŞARA O. N., YAPICI S., ARZUTUĞ M. E.
Mühendis ve Makina, vol.48, pp.20-27, 2007 (Peer-Reviewed Journal)

Refereed Congress / Symposium Publications in Proceedings

- I. **DEVELOPMENT of a NOVEL CPU COOLER by USING a NANOFLUID in MINICHANNEL FINS & DETERMINATION THERMAL PERFORMANCE**
Arzutuğ M. E., Başçı A.
ANKARA INTERNATIONAL CONGRESS ON SCIENTIFIC RESEARCH-VII, Ankara, Turkey, 2 - 04 December 2022, pp.127-134
- II. **A New Heat Sink Design for Cooling Microprocessors and Investigation of Cooling Performance**
Arzutuğ M. E., Başçı A.
2nd International Symposium on Applied Science and Engineering (ISASE-2021), 7 - 09 April 2021, vol.1, no.1, pp.1
- III. **Determination of the Effect of Suspended Nanosized Particles on Mass Transfer Rate in an Agitated Vessel**
ARZUTUĞ M. E., AYDIN Ö., TORUN M., ÇALIŞKAN K.
Proceedings of the 2nd International Conference on Fluid Flow, Heat and Mass Transfer, 30 April - 01 May 2015
- IV. **Çarpan jet tekniği kullanarak kompozit filmlerin elektrolitik olarak kaplanması**
ARZUTUĞ M. E., EZİRMİK K. V.
1. Uluslararası Yüzey İşlemleri Sempozyumu, Turkey, 15 - 18 June 2011
- V. **Çarpan Jet Tekniği Kullanılarak Kompozit Filmlerin Elektrolitik Olarak Kaplanması**
ARZUTUĞ M. E., EZİRMİK K. V.
1. Uluslararası Yüzey İşlemleri Sempozyumu 2011, İstanbul, Turkey, 15 - 18 June 2011
- VI. **PEM Yakıt hücrelerinde bulunan gaz difüzyon tabakalarının hidrofilik porozitelerinin belirlenmesi**
ARZUTUĞ M. E., FOWLER M.
9. Ulusal Kimya Mühendisliği Kongresi, Turkey, 22 - 25 June 2010
- VII. **The effect of clamping pressure on GDL porosity**
ARZUTUĞ M. E., MICHAEL F.
217th ECS Meeting MA201-01, April 25-30, 201 Vancouver, Canada, Vancouver, Canada, 25 - 30 April 2010
- VIII. **Influence of gradient PTFE coating in cathode gas diffusion layer on the performance of PEMFCs**
ARZUTUĞ M. E., FOWLER M., SINGARAM V., DHANUSHKODI S.
217th ECS Meeting MA2010-01 April 25-20, 2010, Vancouver, Canada, Vancouver, Canada, 25 - 30 April 2010

- IX. **Boraks çözeltilisinin membranlı ve üç boyutlu bir hücrede elektrolizi ile sodyum hidroksit üretimi**
ÖZ E. K., ÇOPUR M., YAPICI S., ARZUTUĞ M. E.
8. Ulusal Kimya Mühendisliği Kongresi, Turkey, 26 - 29 August 2008
- X. **Daldırılmış swirl ve çok kanallı çarpan jetlerde kütle transferi**
ARZUTUĞ M. E., YAPICI S.
7. Ulusal Kimya Mühendisliği Kongresi, Turkey, 5 - 08 September 2006
- XI. **Daldırılmış konvansiyonel çarpan jetler ve çok kanallı çarpan jetler ile düzgün bir çarpma yüzeyi arasında kütle transferi dağılımının karşılaştırılması**
ARZUTUĞ M. E., YAPICI S.
6. Ulusal Kimya Müh. Kongresi, Turkey, 7 - 10 September 2004

Supported Projects

- ADIGÜZEL N., ARZUTUĞ M. E., GÜLDEMİR G., Project Supported by Higher Education Institutions, Çift borulu Isı Değiştiricilerde Isı Transferine Etki Eden Parametrelerin Aktif Tekniklerle Deneysel Olarak İncelenmesi, 2023 - Continues
- Arzutuğ M. E., Technopark, Thermal Paste Production Used in Cooling Applications in Electronic Systems., 2023 - 2025
- Arzutuğ M. E., Technopark, Rust Converter Production for Corrosion Protection of Iron and Aluminum Surfaces., 2023 - 2025
- ARZUTUĞ M. E., Project Supported by Higher Education Institutions, Sürekli Karıştırılmalı Tank reaktörlerde dinamik davranışlı engel dizaynı., 2023 - 2024
- ARZUTUĞ M. E., BAŞÇI A., Project Supported by Higher Education Institutions, Mikroişlemciler için Minikanallı Soğutucu Geliştirilmesi, 2022 - 2024
- Arzutuğ M. E., Project Supported by Higher Education Institutions, Development of a Minichannel Heat Absorber for Microprocessor and Micro Electromechanical Systems., 2022 - 2024
- Arzutuğ M. E., Technopark, Demir Nikel Metal Malzemelerinin Yerinde Kaynatılması için Termit Karışımı Üretimi, 2022 - 2024
- Adıgüzel N., Arzutuğ M. E., Project Supported by Higher Education Institutions, Çift borulu Isı Değiştiricilerde Aktif Tekniklerle Isıl Performansın Artırılması, 2022 - 2023
- Arzutuğ M. E., Project Supported by Other Official Institutions, Social Awareness Project, 2022 - 2022
- ARZUTUĞ M. E., AYDIN Ö., Project Supported by Higher Education Institutions, KARIŞTIRMALI TANK REAKTÖRLERDE KARIŞMA ZAMANININ BELİRLENMESİ, 2013 - 2017
- Arzutuğ M. E., Project Supported by Higher Education Institutions, Karıştırılmalı dikey silindirik ceketli reaktörlerde cidarda lokal kütle ısı transfer ölçümü, 2007 - 2009
- Arzutuğ M. E., Şara O. N., TUBITAK Project, Mikro Elektrotlarla Elektrokimyasal Yöntemle Kütle Transferinin Ölçümü, 2006 - 2009
- Arzutuğ M. E., Yapıcı S., Project Supported by Higher Education Institutions, Konvansiyonel çok kanallı ve swirl çarpan jetlerle kütle transferi, 1997 - 2002

Patent

- Arzutuğ M. E., Başçı A., Heat Sink with minichannel for Microprocessors , Patent, CHAPTER C Chemistry; Metallurgy, The Invention Recourse Number: 2023/017386 , Standard Registration, 2023
- Arzutuğ M. E., Adıgüzel N., Increasing Thermal Performance with Active Techniques in Double Pipe Heat Exchangers, Patent, CHAPTER F Mechanical engineering; Lighting; Heating; Weaponry; Destroyed Materials, The Invention Recourse Number: 2023/015657 , Standard Registration, 2023

Activities in Scientific Journals

Energy Recovery and Transfer Processes., First Editor, 2021 - Continues

Memberships / Tasks in Scientific Organizations

Türk Isı Bilimi ve Tekniği Dergisi, Member, 2018 - Continues

Scientific Refereeing

Project Supported by Higher Education Institutions, BAP Research Project, Kafkas University, Turkey, September 2022

Project Supported by Higher Education Institutions, BAP Research Project, Adana Alparslan Türkeş Science And Technology University, Turkey, September 2022

Technopark, Ataturk University, Turkey, August 2022

CHEMICAL PAPERS, SCI Journal, July 2021

TUBITAK Project, 1001 - Program for Supporting Scientific and Technological Research Projects, Ataturk University, Turkey, May 2021

Project Supported by Higher Education Institutions, BAP Research Project, Sakarya University Of Applied Sciences, Turkey, September 2020

Scientific Consultations

Atatürk Üniversitesi / Fen Bilimleri, Other, Ataturk University, Mühendislik Fakültesi, Kimya Mühendisliği, Turkey, 2023 - Continues

Atatürk Üniversitesi/ Fen Bilimleri, Other, Ataturk University, Mühendislik Fakültesi, Kimya Mühendisliği, Turkey, 2022 - Continues

Atatürk Üniversitesi / Fen Bilimleri, Other, Ataturk University, Mühendislik Fakültesi, Kimya Mühendisliği, Turkey, 2022 - Continues

Tübitak 1507 Kobi Ar-Ge Başlangıç Destek Programı, Project Consultancy, Ataturk University, Mühendislik Fakültesi, Kimya Mühendisliği, Turkey, 2021 - 2022

Tasks In Event Organizations

Arzutuğ M. E., Yetim A. F., Afşar F., Çalışkan B., The effect of temperature parameter in experimental researchs., Workshop Organization, Erzurum, Turkey, Kasım 2023

Arzutuğ M. E., Afşar F., Doğan T. H., Şimşek F., Combustion systems, fuels and the environment, Workshop Organization, Erzurum, Turkey, Ekim 2023

Arzutuğ M. E., Aydın M. D., Afşar F., Efficiency in Engineering System, Workshop Organization, Erzurum, Turkey, Eylül 2023

Arzutuğ M. E., Kızılca Çoruh M., Afşar F., Şimşek F., Transfer Processes in Engineering., Workshop Organization, Erzurum, Turkey, Eylül 2023

Arzutuğ M. E., Demirboğa R., Kızılca Çoruh M., Aydın Ö., POLAT R., Mass Transfer in Engineering Applications and Mass Transfer Measurement Techniques., Workshop Organization, Erzurum, Turkey, Ağustos 2023

Arzutuğ M. E., 4th International Conference on Advanced Engineering Technologies, Scientific Congress, Bayburt, Turkey, Eylül 2022

Arzutuğ M. E., 9th International Conference on Material Science and Nanotechnology for Next Generation (MSNG 2022) , Scientific Congress, Ankara, Turkey, Eylül 2022

Arzutuğ M. E., TOK 2022 Automatic Control National Congress, Scientific Congress, Elazığ, Turkey, Eylül 2022

Arzutuğ M. E., Nadaroğlu H., The World Congress on Applied Nanotechnology (W-CAN), Scientific Congress, Turkey, Kasım 2021

Arzutuğ M. E., Erdemir F., The International Küresan Multidisciplinary Studies Congress, Scientific Congress, Turkey, Ekim 2021

Arzutuğ M. E., Gürbulak B., In the First INTERNATIONAL CONGRESS ON NATURAL SCIENCES (ICNAS-2021), Scientific Congress, Erzurum, Turkey, Eylül 2021

Arzutuğ M. E., Gürbulak B., First INTERNATIONAL SYMPOSIUM ON RECENT ADVANCES IN FUNDAMENTAL AND APPLIED SCIENCES (ISFAS-2021), Scientific Congress, Erzurum, Turkey, Eylül 2021

Arzutuğ M. E., Yakuphanoglu F., 8th International Conference on Materials Science and Nanotechnology for Next Generation, Scientific Congress, Erzurum, Turkey, Ağustos 2021

Arzutuğ M. E., Aydın A. C., Yıldız E., International Congress on The Phenomenological Aspects of Civil Engineering (PACE-2021), Scientific Congress, Erzurum, Turkey, Haziran 2021

Arzutuğ M. E., Başçı A., INTERNATIONAL SYMPOSIUM ON APPLIED SCIENCES & ENGINEERING, Scientific Congress, Erzurum, Turkey, Nisan 2021

Mobility Activity

Erasmus Programme, Lecturing, Ürdün Üniversitesi, Jordan, 2017 - 2017

Erasmus Programme, Lecturing, Università degli studi di Napoli Federico II, Italy, 2015 - 2015

Post Doc, Post Doc, Waterloo University, Canada, 2008 - 2010

Metrics

Publication: 23

Citation (WoS): 84

Citation (Scopus): 96

H-Index (WoS): 4

H-Index (Scopus): 4

Congress and Symposium Activities

ANKARA INTERNATIONAL CONGRESS ON SCIENTIFIC RESEARCH-VII, Moderator, Ankara, Turkey, 2022

ANKARA INTERNATIONAL CONGRESS On SCIENTIFIC RESEARCH-VII December 2-4, 2022 Ankara- TÜRKİYE, Attendee, Ankara, Turkey, 2022

1st INTERNATIONAL CONGRESS ON NATURAL SCIENCES (ICNAS-2021), Moderator, Erzurum, Turkey, 2021

INTERNATIONAL SYMPOSIUM ON APPLIED SCIENCES AND ENGINEERING, Attendee, Erzurum, Turkey, 2021

Proceedings of the 2nd International Conference on Fluid Flow, Heat and Mass Transfer, Attendee, Ottawa, Canada, 2015

1st ISTS 2011 International Surface Treatment Symposium, Attendee, İstanbul, Turkey, 2011

217th Electro Chemical Society Meeting, Attendee, Vancouver, Canada, 2010

Entrepreneurship Activities

Other, Ener-KA, 21 January 2022, Owner

Representation and Promotion Activities

Institutional Representation, University of Erzurum Teknik, Turkey, Erzurum, 2023 - 2023

Institutional Representation, University of Ataturk., Turkey, Erzurum, 2023 - 2023

Institutional Representation, University of Erzurum Teknik, Turkey, Erzurum, 2023 - 2023

Institutional Representation, University of Ataturk, Turkey, Erzurum, 2023 - 2023

Institutional Representation, Atatürk Üniversitesi, Alfaisal University, Erzurum Teknik Üniversitesi ve Osmaniye Korkut Ata Üniversitesi, Turkey, Erzurum, 2023 - 2023

Non Academic Experience

ANADOLU İNOVASYON ARGE VE SAVUNMA SANAYİ TİC. LTD. ŞTİ.

Ürdün Üniversitesi

Università degli Studi di Napoli Federico II (Engineering Faculty Chemical Eng. department)

Waterloo University

Waterloo University