

Assoc. Prof. ıđdem Oral

Personal Information

Fax Phone: [+90 212 285 2925](tel:+902122852925)

Email: cigdemo@itu.edu.tr

Web: <https://avesis.itu.edu.tr/cigdemo>

Address: İstanbul Teknik Üniversitesi Kimya Müh. Böl. Maslak-Istanbul

Education Information

Post Doctorate, University Of Colorado At Boulder, Engineering Faculty, Chemical And Biological Engineering Department, United States Of America 2004 - 2005

Doctorate, İstanbul Teknik Üniversitesi, Fen Bilimleri Enstitüsü, Kimya Mühendisliği Anabilimdalı, Turkey 1995 - 2004

Post Graduate, İstanbul Teknik Üniversitesi, Fen Bilimleri Enstitüsü, Kimya Mühendisliği Anabilimdalı, Turkey 1991 - 1994

Under Graduate, İstanbul Teknik Üniversitesi, Kimya-Metalurji Fakültesi, Kimya Mühendisliği Bölümü, Turkey 1985 - 1990

Foreign Languages

English, B2 Upper Intermediate

Certificates, Courses and Trainings

Foreign Language, UCSD Extention Intensive English Language Program, University of California, San Diego, 1990

Dissertations

Doctorate, Zeolit katkılı polimerik gaz ayırma membranlarında taşınım mekanizmalarının incelenmesi, İstanbul Teknik Üniversitesi, Fen Bilimleri Enstitüsü, 2003

Post Graduate, Zeolite filled polmeric gas separation membranes, İstanbul Teknik Üniversitesi, Fen Bilimleri Enstitüsü, 1994

Research Areas

Technical Sciences, Chemical Engineering and Technology, Process and Reactor Design, Chemical Process System Engineering, Metallurgical and Materials Engineering, Material science and engineering, Composites, Polymeric Materials, Nanomaterials

Academic Titles / Tasks

Associate Professor, İstanbul Teknik Üniversitesi, Kimya-Metalurji Fakültesi, Kimya Mühendisliği, 2018 - Continues

Lecturer PhD, İstanbul Teknik Üniversitesi, Kimya Metalurji Fakültesi, Kimya Muhendisliği Bölümü, 2016 - Continues

Research Assistant, İstanbul Teknik Üniversitesi, Kimya-Metalurji Fakültesi, Kimya Mühendisliği Bölümü, 1997 - Continues

Courses

Introduction To Scientific and Eng. Computing, Under Graduate, 2016 - 2017

Kimya Mühendisliği Laboratuvarı II, Under Graduate, 2016 - 2017

Statistic and Probability, Under Graduate, 2016 - 2017

Kimya Mühendisliği Laboratuvarı I, Under Graduate, 2016 - 2017

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

- **Characterization of mixed matrix membranes by adsorption and fractal analysis**
Atalay-Oral Ç., Tatlier M.
SEPARATION SCIENCE AND TECHNOLOGY, vol.54, pp.2323-2333, 2019 (Journal Indexed in SCI)
- **Estimation of interphase properties of various mixed matrix membranes**
Oral Ç., Tatlier M.
Composite Interfaces, vol.26, pp.825-837, 2019 (Journal Indexed in SCI)
- **Ion exchange of zeolite coatings for adsorption heat pump applications**
Tatlier M., Atalay-Oral C.
JOURNAL OF SOL-GEL SCIENCE AND TECHNOLOGY, vol.91, pp.117-126, 2019 (Journal Indexed in SCI)
- **Ferrierite-poly(vinyl acetate) mixed matrix membranes for gas separation: A comparative study**
Atalay-Oral C., Tokay B., Erdem-Senatalar A., Tanteekin-Ersolmaz S. B.
MICROPOROUS AND MESOPOROUS MATERIALS, vol.259, pp.17-25, 2018 (Journal Indexed in SCI)
- **Gas permeability of polydimethylsiloxane membranes filled with clinoptilolite in different cationic forms**
Atalay Oral C.
TURKISH JOURNAL OF CHEMISTRY, vol.42, pp.112-120, 2018 (Journal Indexed in SCI)
- **PREPARATION OF ZEOLITE X COATINGS ON SODA-LIME TYPE GLASS PLATES**
Tatlier M., Atalay-Oral C.
BRAZILIAN JOURNAL OF CHEMICAL ENGINEERING, vol.34, pp.203-210, 2017 (Journal Indexed in SCI)
- **Crystallization of Zeolite A Coatings from Natural Zeolite**
TATLIER M., ORAL Ç.
Materials Research-Ibero-American Journal Of Materials, vol.19, pp.1469-1477, 2016 (Journal Indexed in SCI Expanded)
- **Sod-ZMOF/Matrimid (R) mixed matrix membranes for CO2 separation**
Kılıç A., ATALAY-ORAL C., Sirkecioğlu A., TANTEKIN-ERSOLMAZ S. B. , Ahunbay M. G.
JOURNAL OF MEMBRANE SCIENCE, vol.489, pp.81-89, 2015 (Journal Indexed in SCI)
- **Effects of Using Different Polymers in Post-Synthesis Treatments of Zeolite a Coatings**
Atalay-Oral C., BORA S., TATLIER M.
CHEMICAL ENGINEERING COMMUNICATIONS, vol.202, pp.375-383, 2015 (Journal Indexed in SCI)
- **Post-synthesis treatment for improving zeolite coating stability**
Atakan A., ATALAY-ORAL C., TATLIER M., Erciyes T., ERDEM-SENATALAR A.
MICROPOROUS AND MESOPOROUS MATERIALS, vol.156, pp.262-269, 2012 (Journal Indexed in SCI)
- **Antibacterial Oil-Based Polyurethane Films for Wound Dressing Applications**
Yucedag F., ATALAY-ORAL C., Erkal S., Sirkecioğlu A., Karasartova D., Sahin F., TANTEKIN-ERSOLMAZ S. B. , GUNER F. S.
JOURNAL OF APPLIED POLYMER SCIENCE, vol.115, pp.1347-1357, 2010 (Journal Indexed in SCI)
- **Fatty acid-based polyurethane films for wound dressing applications**

- Gultekin G., ATALAY-ORAL C., Erkal S., Sahin F., Karastova D., TANTEKIN-ERSOLMAZ S. B. , Güner F. S.
 JOURNAL OF MATERIALS SCIENCE-MATERIALS IN MEDICINE, vol.20, pp.421-431, 2009 (Journal Indexed in SCI)
- **Copolyimide membranes for gas separation**
 Er O. O. , SEN S., ATALAY-ORAL C., GUNER F. S. , TANTEKIN-ERSOLMAZ S. B.
 DESALINATION, vol.200, pp.259-261, 2006 (Journal Indexed in SCI)
 - **Polyurethane films for wound dressing applications**
 Ozkaynak M., ATALAY-ORAL C., TANTEKIN-ERSOLMAZ S., GUNER F. S.
 MACROMOLECULAR SYMPOSIA, vol.228, pp.177-184, 2005 (Journal Indexed in SCI)
 - **Power-law scaling behavior of membranes**
 Tatlier M., TanteKin-Ersolmaz S., Atalay-Oral C., Erdem-Senatalar A.
 JOURNAL OF MEMBRANE SCIENCE, vol.182, pp.183-193, 2001 (Journal Indexed in SCI)
 - **Effect of zeolite particle size on the performance of polymer-zeolite mixed matrix membranes**
 TanteKin-Ersolmaz S., ATALAY-ORAL C., Tatlier M., ERDEM-SENATALAR A., SCHOEMAN B., STERTE J.
 JOURNAL OF MEMBRANE SCIENCE, vol.175, pp.285-288, 2000 (Journal Indexed in SCI)

Refereed Congress / Symposium Publications in Proceedings

- **Thin Film Nanocomposite (TFN) Membranes Containing Functionalized Zeolite Nanoparticles for Desalination with High Boron Rejection**
 KÜRKLÜ KOCAOĞLU S., GÜVENSOY A., Yıldırım C., Berker L., ORAL Ç., Tokay B., ERSOLMAZ Ş. B.
 2019 AIChE Annual Meeting, Orlando, Florida, United States Of America, 10 - 15 November 2019
- **Zeolit Katkılı Polimerik Membranlara İyonik Sıvı İlavesinin CO₂ Ayırımına Etkisi**
 ORAL Ç.
 Uluslararası Katılımlı VII. Polimer Bilim ve Teknoloji Kongresi'xx, Eskişehir, Turkey, 9 - 12 September 2018
- **Investigation of Zeolite-Polymer Interphase in Mixed-Matrix Membranes by Fractal Analysis**
 ORAL Ç., TATLIER M.
 ZMPC2018, International Symposium on Zeolites and Microporous Crystals 2018, Yokohama, Japan, 5 - 09 August 2018
- **Effects of incorporating ionic liquids in cellulose acetate-SAPO-34 mixed matrix membranes for CO₂ separation**
 ORAL Ç.
 Euromembrane 18, Valencia, Spain, 9 - 13 July 2018
- **Preparation and characterization of zeolite-polymer mixed matrix membranes filled with KFI and RHO type zeolites**
 ORAL Ç., TATLIER M.
 2017 AIChE Annual Meeting, Minneapolis, MN, United States Of America, 29 October - 03 November 2017
- **Investigation of Interfacial Effects of Ionic Liquids on Nano Zeolite Filled Glassy Polymeric Membranes for CO₂ Separation**
 ORAL Ç.
 International Porous and Powder Materials Symposium and Exhibition (PPM 2017), İzmir, Turkey, 13 - 15 September 2017
- **Preparation and characterization of KFI zeolites and their mixed-matrix membranes**
 ORAL Ç., TATLIER M.
 International Powder Porous Materials Symposium/Exhibition (PPM 2017), İzmir, Turkey, 13 - 15 September 2017
- **MIL 100 Fe Synthesis and Characterization for Topical Treatment of Skin Diseases**
 ALİARİ MİAVAGHİ M., ORAL Ç., SİRKECİOĞLU A.
 Aiche Annual Meeting 2016, San-Francisco, Costa Rica, 13 - 18 November 2016
- **Sod Zmf Polyimide MIXED Matrix Membranes for CO₂ Separation**
 KILIÇ A., ORAL Ç., SİRKECİOĞLU A., SHEKHAH O., EDDAOUĐ M., ERSOLMAZ Ş. B. , AHUNBAY M. G.
 Aiche annual meeting 2016, San-Francisco, United States Of America, 13 - 18 November 2016

- **Hydrothermal Synthesis of Composite Zeolite a and X Coatings**
ORAL Ç., TATLIER M.
Aiche Annual Meeting 2016, San-Francisco, United States Of America, 13 - 18 November 2016
- **CO2 AYIRIMI İÇİN ZEOLİT VE İYONİK SIVILARI İÇEREN POLİMERİK MEMBRANLARIN HAZIRLANMASI VEKARAKTERİZASYONLARI**
ORAL Ç.
UKMK 2016, İzmir, Turkey, 23 - 26 August 2016
- **İLAÇ TAŞIYICI MIL 100 Fe HAZIRLANMASI**
ALİARİ MİAVAGHİ m., ORAL Ç., SİRKECİOĞLU A.
UKMK 2016, Turkey, 23 - 26 August 2016
- **DOĞAL ZEOLİTTEN KRİSTALİZASYON YOLUYLA ZEOLİT A KAPLAMALARI HAZIRLANMASI**
ORAL Ç., TATLIER M.
UKMK 2016, İzmir, Turkey, 23 - 26 August 2016
- **Interactions in Zeolite-Polymer Composites**
ORAL Ç., BORA Ş., TATLIER M.
2015 AiChE Annual Meeting (15th), Salt Lake City, Utah, United States Of America, 8 - 13 November 2015
- **Interactions in zeolite polymer composite**
ORAL Ç., Bora Ş., TATLIER M.
Aiche 2015 Annual Meeting, Salt Lake City, UT, United States Of America, 8 - 10 November 2015, pp.181
- **Preparation and Characterization of Polymeric Membranes Containing Zeolites and Ionic Liquids for CO2 Separation**
ORAL Ç., KINIK F. P.
Euromembrane 2015, Aachen, Germany, 6 - 10 September 2015
- **Preparation And Characterization Of Polymeric Membranes Containing Zeolites And Ionic Liquids For CO2 Separation**
ORAL Ç., Kınık p.
Euromembrane 2015, Aachen, Germany, 6 - 10 September 2015
- **Preparation of composite coatings of zeolites A and X**
ORAL Ç., TATLIER M.
International Symposium on Zeolites and Microporous Crystals 2015 (ZMPC2015), Sapporo, Japan, 27 June - 01 July 2015
- **Investigation of interactions in zeolite composites**
ORAL Ç., BORA Ş., TATLIER M.
6th International FEZA Conference, Leibzig, Germany, 8 - 11 September 2014
- **Preparation of Zeolite X Coatings on Glass**
TATLIER M., ORAL Ç.
6th International FEZA Conference, Leibzig, Germany, 08 September 2014
- **Effect of Residual Solvent on The CO2 Separation Properties of 6FDA-DAM Membranes**
KAHRAMAN D., ORAL Ç., ERSOLMAZ Ş. B.
the 10th International Congress on Membrane and Membrane Processes (ICOM2014), Suzhou, China, 20 - 25 July 2014
- **CO2 / CH4 Separation Properties of sod-ZMOF/Matrimid Mixed-Matrix Membranes**
KILIÇ A., ORAL Ç., SİRKECİOĞLU A., ERSOLMAZ Ş. B., AHUNBAY M. G.
the 10th International Congress on Membrane and Membrane Processes (ICOM2014), Suzhou, China, 20 - 25 July 2014
- **Rho-ZMOF / Polyimide Mixed-Matrix Membranes for CO2 Separation**
ÖZTÜRK I. G., ORAL Ç., SİRKECİOĞLU A., AHUNBAY M. G., ERSOLMAZ Ş. B.
the 10th International Congress on Membrane and Membrane Processes (ICOM2014), Suzhou, China, 20 - 25 July 2014
- **Post-Synthesis Treatment by Using Polymer for improving zeolite coating stability**
ORAL Ç., ATAKAN A., TATLIER M.

2013 AIChE Annual Meeting, San-Francisco, United States Of America, 3 - 08 November 2013

Synthesis, Characterization, and Thermal Stability of rho-ZMOF and Its Usability as a Filler Material in Mixed-Matrix Membranes for CO₂ Separation

ÖZTÜRK I. G. , ORAL Ç., SİRKECİOĞLU A., AHUNBAY M. G. , ERSOLMAZ Ş. B.

International PowderPorous Materials Symposium/Exhibition (PPM 2013), İzmir, Turkey, 3 - 06 September 2013

Sod-ZMOF/Matrimid Mixed Matrix Membranes for CO₂/CH₄ Separation

KILIÇ A., AHUNBAY M. G. , ORAL Ç., SİRKECİOĞLU A., ERSOLMAZ Ş. B.

the 17th International Zeolite Conference (17th IZC), Moskva, Russia, 13 - 15 July 2013

Mixed-Matrix Membranes with Zeolite-Like MOFs for CO₂/CH₄ Separation

KILIÇ A., ORAL Ç., SİRKECİOĞLU A., ERSOLMAZ Ş. B. , AHUNBAY M. G.

2012 AIChE Annual Meeting, Pittsburgh, PA, United States Of America, 28 October - 02 November 2012

6FDA-DAM poliimid membranların Gaz Ayırma Özellikleri Üzerine Kalıntı Çözücünün Etkisi

KAHRAMAN D., ORAL Ç., ERSOLMAZ Ş. B.

10. Ulusal Kimya Mühendisliği Konferansı, İstanbul, Turkey, 3 - 06 September 2012

Mixed Matrix Polymeric Membranes Containing Zeolites and Room Temperature Ionic Liquids

ORAL Ç., ERSOLMAZ Ş. B.

the IUPAC MACRO2012 World Polymer Congress, Blacksburg, Virginia, United States Of America, 24 - 29 June 2012

Effect of Residual Solvent on The CO₂ Separation Properties of 6FDA-DAM Membranes

Kahraman D., ORAL Ç., ERSOLMAZ Ş. B.

the IUPAC MACRO2012 World Polymer Congress, Blacksburg, Virginia, 24 - 29 June 2012

Ternary Mixed-Matrix Membranes Containing Room Temperature Ionic Liquids

ORAL Ç., NOBLE R. D. , ERSOLMAZ Ş. B.

21st Annual Meeting of the North American Membrane Society NAMS 2011, Las Vegas, Nevada, 4 - 08 June 2011

Ternary Mixed-Matrix Membranes for CO₂ Separation

ISHAKOĞLU H., ALTAY G., SEN S., ORAL Ç., ERSOLMAZ Ş. B.

The 2010 North of Membrane Society (NAMS/ICIM 2010), Washinton DC, United States Of America, 17 - 22 July 2010

Polyimide Based Ternary Mixed-Matrix Membranes Containing Room Temperature Ionic Liquids

ORAL Ç., NOBLE R. D. , ERSOLMAZ Ş. B.

The 2010 North of American Membrane Society (NAMS/ICIM 2010), Washington, United States Of America, 17 - 22 July 2010

Synthesis, characterization, and molecular simulation of 6FDA/BTDA-pBAPS copolyimide membrane for CO₂/CH₄ separation

HALİTOĞLU S., YILMAZ Ö., ORAL Ç., AHUNBAY M. G. , ERSOLMAZ Ş. B.

EUROMEMBRANE 2009 Conference, Montpellier, France, 6 - 10 September 2009

Polymer-zeolite-additive three-component mixed matrix composite membrane for CO₂/CH₄ separation.

ERPEK E., ÖZKALE B., HALİTOĞLU S., ORAL Ç., AHUNBAY M. G. , ERSOLMAZ Ş. B.

EUROMEMBRANE 2009 Conference, Montpellier, France, 6 - 10 September 2009

CO₂/CH₄ separation properties of Ultem®-SAPO-34 mixed matrix composite membranes

KERTİK A., ORAL Ç., ERSOLMAZ Ş. B.

EUROMEMBRANE 2009 Conference, Montpellier, France, 06 September 2009

Polymer-zeolite-additive three-component mixed matrix composite membrane for gas separation : A possible route to tailor permselectivity

ISHAKOĞLU H., ORAL Ç., ERSOLMAZ Ş. B.

.The 2009 North of American Society (NAMS 2009), South Carolina, Charston, United States Of America, 20 - 24 June 2009

SAPO-34-Polymer Mixed-Matrix Membranes for CO₂/CH₄ Separation

ORAL Ç., ERPEK E., KERTİK A., ERSOLMAZ Ş. B.

International Congress on Membranes and Membrane Processes (ICOM 2008), Honolulu, Hawaii, United States Of America, 12 - 18 July 2008

● **Polymer-Zeolite 4A Mixed-Matrix Nanocomposite Gas Separation Membranes**

KERTİK A., AĞIL I., ORAL Ç., ERSOLMAZ Ş. B.

International Congress on Membranes and Membrane Processes (ICOM 2008), Honolulu, Hawaii, United States Of America, 12 - 18 July 2008

● **Zeolite Filled 6FDA Based Polyimide Mixed-Matrix Membranes Prepared with Compatibilizing Additives**

ERPEK E., ORAL Ç., ERSOLMAZ Ş. B.

International Congress on Membranes and Membrane Processes (ICOM 2008), Honolulu, Hawaii, United States Of America, 12 - 18 July 2008

● **Copolyimide Membranes for Gas Separation**

Er Ö. O. , Serhat S., ORAL Ç., GÜNER F. S. , ERSOLMAZ Ş. B.

Euromembrane 2006, Messina, Italy, 24 - 28 September 2006

● **Kopoid Gaz Ayırma membranlarının Sentezi ve Karakterizasyonu**

ER Ö. O. , ORAL Ç., GÜNER F. S. , ERSOLMAZ Ş. B.

Yedinci Ulusal Kimya Mühendisliği Kongresi, Eskişehir, Turkey, 5 - 08 September 2006

● **Preparation and Characterization of Mixed Matrix Composite Membranes Containing Room Temperature Ionic Liquids and Zeolites for Gas Separation Applications**

ORAL Ç.

International Congress on Membranes and Membrane Processes, (ICOM 2005), Seoul, South Korea, 21 - 26 August 2005

● **Study of the Polymer-Zeolite Interphase in Mixed-Matrix Composite Gas Separation Membranes**

ORAL Ç., TATLIER M., ERSOLMAZ Ş. B. , ERDEM A.

Application of Nanotechnologies for Separation and Recovery of Volatile Organic Compounds from Waste Air Streams (ANVOC), İstanbul, Turkey, 30 May - 01 June 2005

● **Polymer/Zeolite Nanocomposite Gas Separation Membranes**

AĞIL I., ORAL Ç., ERDEM A., ERSOLMAZ Ş. B.

Application of Nanotechnologies for Separation and Recovery of Volatile Organic Compounds (ANVOC), İstanbul, Turkey, 30 May - 01 June 2005, pp.171-176

● **Zeolit Katkılı Polimerik Gaz Ayırma Membranlarında Zeolit/Polimer Arayüzeyinin İncelenmesi**

ORAL Ç., TATLIER M., ERDEM A., ERSOLMAZ Ş. B.

6. Ulusal Kimya mühendisliği Kongresi (UKMK 6), İzmir, Turkey, 7 - 10 September 2004

● **Zeolite filled Poly(vnyl acetate) gaz separation membranes**

ORAL Ç., ERDEM A., ERSOLMAZ Ş. B.

Advanced Membrane Technology, Barga, Italy, 14 - 19 October 2001

● **Zeolit Tane Büyüklüğünün Zeolit Katkılı Polimerik Membranların Gaz Ayırma Özelliklerine Etkisi**

ORAL Ç., TATLIER M., ERDEM A., ERSOLMAZ Ş. B.

IV. Ulusal Kimya Mühendisliği Kongresi (UKMK4), İstanbul, Turkey, 4 - 07 September 2000, vol.1, pp.637-642

● **Study of Molecular Sieving Mechanism in Zeolite/PDMS mixed matrix gas separation membranes**

ERSOLMAZ Ş. B. , ORAL Ç., ERDEM A., YILMAZ L.

Euromembrane 99, Leuven, Belgium, 19 - 22 September 1999

● **Zeolit Katkılı PDMS Membranlarda Moleküler Elek Mekanizmasının Etkinliğinin Belirlenmesi**

ORAL Ç., ERSOLMAZ Ş. B. , ERDEM A., YILMAZ L.

Üçüncü Ulusal Kimya Kongresi (UKMK-3), Erzurum, Turkey, 1 - 04 September 1998, vol.1, pp.311-313

● **Zeolite filled polymeric membranes in gas and vapor permeation**

ORAL Ç., KALAONRA N., BÜLBÜL İ., ERDEM A., ERSOLMAZ Ş. B.

International Congress on Membranes and Membrane Processes (ICOM 1996), Yokohama, Japan, 18 - 23 August 1996

● **Zeolit Katkılı Polimerik Gaz Ayırma Membranları**

Bülbül İ., ORAL Ç., ERSOLMAZ Ş. B. , ERDEM A.

Birinci Ulusal Kimya Mühendisliği Kongresi (UKMK-1), Ankara, Turkey, 13 - 16 September 1994, vol.1, pp.469-481

Supported Projects

- Oral Ç., Tatlier M., Project Supported by Higher Education Institutions, Adsorpsiyon Isı Pompalarında Kullanılabilecek Zeolit NaX Kaplamalarının Farklı İyon Formlarına Dönüştürülerek Geliştirilmesi ve Adsorpsiyon/Desorpsiyon Performanslarının Belirlenmesi, 2017 - 2019
- Oral Ç., Project Supported by Higher Education Institutions, Zeolit A ve X kompozit kaplamalarının hidrotermal sentezlenmesi, 2016 - 2018
- Oral Ç., Project Supported by Higher Education Institutions, ZEOLİT-POLİMER KOMPOZİTLERİNDE ETKİLEŞİMLER, 2015 - 2018
- Oral Ç., Project Supported by Higher Education Institutions, CO₂ Ayırımı İçin Rho-ZMOF/poliimid Karışık Matrisli Membranlar, 2014 - 2018
- Oral Ç., Project Supported by Higher Education Institutions, Zeolit kaplama stabilitesinin geliştirilmesi için sentez sonrası polimerle iyileştirilmesi, 2013 - 2018
- Oral Ç., Project Supported by Higher Education Institutions, Zeolit ve Oda Sıcaklığında İyonik Sıvıları İçeren Karışık Matrisli Polimerik Membranlar, 2012 - 2018
- Oral Ç., Project Supported by Higher Education Institutions, İyonik Sıvıları İçeren Üç Bileşenli Karışık Matris Membranları, 2011 - 2018
- Oral Ç., Project Supported by Higher Education Institutions, ODA SICAKLIĞINDA SIVI HALDE İYONİK İÇEREN POLİMİD ESASLI KARIŞIK MATRİLİ KOMPOZİT MEMBRANLAR, 2010 - 2018
- Oral Ç., Project Supported by Higher Education Institutions, SAPO-34 Polymer Mixed Matrix Membranes for CO₂/CH₄ Separation, 2008 - 2018
- Oral Ç., Project Supported by Higher Education Institutions, Gaz Ayırma uygulamaları için Oda Sıcaklığında İyonik Haldeki Sıvıları ve Zeolitleri İçeren Karışık Matrisli Kompozit Membranların Hazırlanışı ve Karakterizasyonu, 2005 - 2018

Scientific Research / Working Group Memberships

The Global Home of Chemical engineers, Aiche, the American Institute of Chemical Engineers, United States Of America, <https://www.aiche.org/>, 2017 - Continues

Citations

Total Citations (WOS):277

h-index (WOS):7