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International Researcher IDs

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Publons / Web Of Science ResearcherID: ABA-7453-2020

ScopusID: 35616836700

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Education Information

Doctorate, Middle East Technical University, Faculty of Engineering, Department of Chemical Engineering, Turkey 1991 - 1996

Postgraduate, Middle East Technical University, Faculty of Engineering, Department of Chemical Engineering, Turkey 1988 - 1991

Undergraduate, Middle East Technical University, Faculty of Engineering, Department of Chemical Engineering, Turkey 1984 - 1988

Research Areas

Chemical Engineering and Technology, Chemical Technologies, Process and Reactor Design, Engineering and Technology

Academic Titles / Tasks

Professor, Middle East Technical University, Faculty of Engineering, Department of Chemical Engineering, 2009 - Continues

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Process intensification methods in steam reforming of ethanol with nickel impregnated mesoporous carbon: Microwave heating and sorption enhanced reforming**
Sariyer M., Sezgi N. A., Doğu T.
International Journal of Hydrogen Energy, vol.67, pp.912-924, 2024 (SCI-Expanded)
- II. **Effects of synthesis route on the performance of mesoporous ceria-alumina and ceria-zirconia-alumina supported nickel catalysts in steam and autothermal reforming of diesel**
Bozda A. A., Sezgi N. A., Doğu T.
INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, vol.47, no.7, pp.4568-4583, 2022 (SCI-Expanded)
- III. **Development of ceria and tungsten promoted nickel/alumina catalysts for steam reforming of diesel**
Bozdag A. A., Kaynar A. D. D., Doğu T., Sezgi N. A.
CHEMICAL ENGINEERING JOURNAL, vol.377, 2019 (SCI-Expanded)

- IV. **Performance comparison of microwave and conventionally heated reactors for sorption enhanced reforming of ethanol over Ni impregnated SBA-15**
Sariyer M., Bozdag A. A., Sezgi N. A., Doğu T.
CHEMICAL ENGINEERING JOURNAL, vol.377, 2019 (SCI-Expanded)
- V. **Synthesis and Characterization of Aluminum Containing Silica Aerogel Catalysts for Degradation of PLA**
Sivri S., Dilek Hacıhabiboğlu Ç., Sezgi N. A.
INTERNATIONAL JOURNAL OF CHEMICAL REACTOR ENGINEERING, vol.17, 2019 (SCI-Expanded)
- VI. **Pyrolysis of Polyethylene over Aluminum-Incorporated MCM-41 Catalyst**
Aydemir B., SEZGİ N. A.
CHEMICAL ENGINEERING COMMUNICATIONS, vol.203, no.5, pp.635-641, 2016 (SCI-Expanded)
- VII. **The Effects of Co-Mo/CaCO₃ Catalyst's Calcination Temperature and Co/Mo Weight Ratio on Carbon Nanotube Production**
Hocaoglu C., SEZGİ N. A.
CHEMICAL ENGINEERING COMMUNICATIONS, vol.202, no.8, pp.1041-1050, 2015 (SCI-Expanded)
- VIII. **Alumina and Tungstophosphoric Acid Loaded Mesoporous Catalysts for the Polyethylene Degradation Reaction**
Aydemir B., SEZGİ N. A.
INDUSTRIAL & ENGINEERING CHEMISTRY RESEARCH, vol.52, no.44, pp.15366-15371, 2013 (SCI-Expanded)
- IX. **Synthesis of boron nitride nanotubes from ammonia and a powder mixture of boron and iron oxide**
Ozmen D., SEZGİ N. A., BALCI F. S.
CHEMICAL ENGINEERING JOURNAL, vol.219, pp.28-36, 2013 (SCI-Expanded)
- X. **Dimethyl ether, diethyl ether & ethylene from alcohols over tungstophosphoric acid based mesoporous catalysts**
Ciftci A., Varışlı D., Tokay K. C., Sezgi N. A., Doğu T.
CHEMICAL ENGINEERING JOURNAL, vol.207, pp.85-93, 2012 (SCI-Expanded)
- XI. **Catalytic degradation of polypropylene over alumina loaded mesoporous catalysts**
Obali Z., SEZGİ N. A., DOĞU T.
CHEMICAL ENGINEERING JOURNAL, vol.207, pp.421-425, 2012 (SCI-Expanded)
- XII. **Boron Oxide Production Kinetics Using Boric Acid as Raw Material**
BALCI F. S., SEZGİ N. A., Eren E.
INDUSTRIAL & ENGINEERING CHEMISTRY RESEARCH, vol.51, no.34, pp.11091-11096, 2012 (SCI-Expanded)
- XIII. **Synthesis of TPA impregnated SBA-15 catalysts and their performance in polyethylene degradation reaction**
Aydemir B., SEZGİ N. A., DOĞU T.
AICHE JOURNAL, vol.58, no.8, pp.2466-2472, 2012 (SCI-Expanded)
- XIV. **Gas phase reaction kinetics in boron fibre production**
Firat F., SEZGİ N. A., Ozbelge H. O., DOĞU T.
AICHE JOURNAL, vol.58, no.5, pp.1562-1569, 2012 (SCI-Expanded)
- XV. **The synthesis and characterization of aluminum loaded SBA-type materials as catalyst for polypropylene degradation reaction**
Obali Z., SEZGİ N. A., DOĞU T.
CHEMICAL ENGINEERING JOURNAL, vol.176, pp.202-210, 2011 (SCI-Expanded)
- XVI. **Nafion-Incorporated Silicate Structured Nanocomposite Mesoporous Catalysts for Dimethyl Ether Synthesis**
Ciftci A., SEZGİ N. A., DOĞU T.
INDUSTRIAL & ENGINEERING CHEMISTRY RESEARCH, vol.49, no.15, pp.6753-6762, 2010 (SCI-Expanded)
- XVII. **Production of B₄C Coatings by CVD Method in a Dual Impinging-Jet Reactor: Chemical Yield, Morphology, and Hardness Analysis**
Karaman M., SEZGİ N. A., Oezbelge H. O.
AICHE JOURNAL, vol.55, no.11, pp.2914-2919, 2009 (SCI-Expanded)

- XVIII. **Mechanism Studies on CVD of Boron Carbide from a Gas Mixture of BCl₃, CH₄, and H₂ in a Dual Impinging-jet Reactor**
Karaman M., SEZGİ N. A., DOĞU T., Ozbelge H. O.
AICHE JOURNAL, vol.55, no.3, pp.701-709, 2009 (SCI-Expanded)
- XIX. **Performance of Acidic MCM-Like Aluminosilicate Catalysts in Pyrolysis of Polypropylene**
Obali Z., SEZGİ N. A., DOĞU T.
CHEMICAL ENGINEERING COMMUNICATIONS, vol.196, pp.116-130, 2009 (SCI-Expanded)
- XX. **Kinetic investigation of chemical vapor deposition of B₄C on tungsten substrate**
Karaman M., Sezgi N. A., Dogu T., Ozbelge H. O.
AICHE JOURNAL, vol.52, no.12, pp.4161-4166, 2006 (SCI-Expanded)
- XXI. **Synthesis and characterization of boron carbide films by plasma-enhanced chemical vapor deposition**
Eroglu O., Sezgi N., Ozbelge H., Durmazucar H.
CHEMICAL ENGINEERING COMMUNICATIONS, vol.190, no.3, pp.360-372, 2003 (SCI-Expanded)
- XXII. **CVD of boron and dichloroborane formation in a hot-wire fiber growth reactor**
Sezgi N., Ersoy A., Dogu T., Ozbelge H.
CHEMICAL ENGINEERING AND PROCESSING, vol.40, no.6, pp.525-530, 2001 (SCI-Expanded)
- XXIII. **Kinetic studies for boron carbide formation in a dual impinging-jet reactor**
Noyan-Dilek S., Ozbelge H., Sezgi N., Dogu T.
INDUSTRIAL & ENGINEERING CHEMISTRY RESEARCH, vol.40, no.3, pp.751-755, 2001 (SCI-Expanded)
- XXIV. **BHCl₂ formation during chemical vapor deposition of boron in a dual-impinging jet reactor**
Sezgi N., Dogu T., Ozbelge H.
INDUSTRIAL & ENGINEERING CHEMISTRY RESEARCH, vol.36, no.12, pp.5537-5540, 1997 (SCI-Expanded)

Refereed Congress / Symposium Publications in Proceedings

- I. **Microwave-Heated Carbon-Coated Monolithic Reactor for Steam Reforming of Ethanol**
SARIYER M., SEZGİ N. A., Doğu T.
ISCRE 28 International Symposium on Chemical Reaction Engineering 2024, Turku, Finland, 16 June 2024
- II. **Steam Reforming of Ethanol with Nickel Impregnated Silica Aerogel in a Microwave Reactor**
SARIYER M., SEZGİ N. A., Doğu T.
9th National Catalysis Congress (NCC9), Çanakkale, Turkey, 7 - 09 September 2023
- III. **Mezogözenekli destek malzemelerinin hidrojen verimi üzerindeki etkisi ve süreç yoğunlaştırma çalışmaları**
SARIYER M., SEZGİ N. A., Doğu T.
15. Ulusal Kimya Mühendisliği Kongresi (UKMK 15), Çanakkale, Turkey, 4 - 07 September 2023
- IV. **Depolymerization of Polylactic Acid in Supercritical Carbon Dioxide**
SİVRİ S., SEZGİ N. A., DİLEK HACIHABİBOĞLU Ç.
the 19th European Meeting on Supercritical Fluids (EMSF2023), Budapest, Hungary, 21 - 24 May 2023, pp.72
- V. **Outperformance of a Microwave-Heated Reactor over a Conventional Reactor in Steam and Sorption Enhanced Reforming of Etanol over Ni-Silica-Aerogel Catalyst**
Doğu T., SARIYER M., SEZGİ N. A.
2022 AIChE Annual Meeting, Phoenix, United States Of America, 13 - 18 November 2022
- VI. **Mikrodalga reaktör sisteminde farklı destek malzemelerine nikel emdirilmiş katalizörlerin etanolün buharlı reformlanması reaksiyonunda incelenmesi**
SARIYER M., SEZGİ N. A., Doğu T.
6th Anatolian School of Catalysis 2022, İzmir, Turkey, 23 September 2022
- VII. **Performance of Microwave and Conventionally Heated Reactor Systems in Steam Reforming of Ethanol over Nickel Impregnated Mesoporous Carbon**
SARIYER M., SEZGİ N. A., Doğu T.

WHEC 2022, İstanbul, Turkey, 26 - 30 June 2022

- VIII. **Steam Reforming of Ethanol over Nickel Impregnated Silica Aerogel**
SARIYER M., SEZGİ N. A., DOĞU T.
NCC8, Turkey, 9 - 12 September 2021
- IX. **Recycling of Polylactic Acid by Pyrolysis over Aluminum Loaded Silica Aerogel**
Sivri S., Dilek Hacıhabiboğlu Ç., Sezgi N. A.
EMCC 9, Ankara, Turkey, 31 August - 02 September 2018
- X. **Performance of Aluminum and Tungstophosphoric Acid Loaded Silica Aerogel in Degradation of Polypropylene**
Habib A. R. R., Doğu T., SEZGİ N. A.
EMCC 9, 31 August - 02 September 2018
- XI. **Temperature Effect on Methanol Synthesis from Syngas over Cu-Zn Based Catalyst**
PEKMEZCİ KARAMAN B., OKTAR N., DOĞU G., SEZGİ N. A., DOĞU T.
EMCC 9, 31 August - 02 September 2018
- XII. **The Effect of Divided Section Packing Concept on Hydrogen Purity in Sorption Enhanced Steam Reforming of Ethanol**
SARIYER M., SEZGİ N. A., DOĞU T.
EMCC 9, 31 August - 02 September 2018
- XIII. **Performances of Microwave and Conventionally Heated Reactors in Sorption Enhanced Reforming of Ethanol over Ni Impregnated SBA-15**
Sariyer M., Arslan Bozdağ A., Sezgi N. A., Doğu T.
ISCRE 25, Florence, Italy, 20 - 23 May 2018
- XIV. **CeO₂ and W Modified Mesoporous Ni/Al₂O₃ Catalysts for Hydrogen Production by Steam Reforming of Diesel Fuel**
ARSLAN BOZDAĞ A., Deniz Kaynar A. D., SEZGİ N. A., DOĞU T.
ISCRE 25, 20 - 23 May 2018
- XV. **Copper-Zinc Based Bifunctional Catalysts Containing Zirconia and Alumina Promoters for Methanol Synthesis**
PEKMEZCİ KARAMAN B., OKTAR N., SEZGİ N. A., DOĞU G., DOĞU T.
International Congress on Engineering and Life Science, 26 - 29 April 2018
- XVI. **Production and Characterization of Boron Nitride Nanotubes from Reaction of Ammonia with Mixture of Boron and Iron Powders**
SEZGİ N. A., Noyan S.
2017 MRS Fall Meeting Exhibit, 26 November - 01 December 2017
- XVII. **Effect of Pressure on Direct Dimethyl Ether (DME) Synthesis from Syngas over Tungstophosphoric Acid (TPA) Impregnated Mesoporous Alumina Catalyst**
ERKAL D., OKTAR N., SEZGİ N. A., DOĞU G., DOĞU T.
The Porous and Powder Materials Symposium and Exhibitions (PPM 2017), 12 - 15 September 2017
- XVIII. **Performance of TPA Incorporated Cu-Zn based Catalysts in Dimethyl Ether and Methanol Synthesis from Syngas**
PEKMEZCİ KARAMAN B., OKTAR N., SEZGİ N. A., GÜLŞEN D., TİMUR D.
The Porous and Powder Materials Symposium and Exhibitions (PPM 2017), 12 - 15 September 2017
- XIX. **Methanol Steam Reforming over Silica Aerogel Catalyst for Hydrogen Production**
DEĞİRMENCİOĞLU P., SEZGİ N. A., DOĞU T.
3rd International Porous Powder Materials Symposium and Exhibition (PPM 2017), 12 - 15 September 2017
- XX. **Effect of Tungsten or Ceria Incorporation into Ni/Al₂O₃ Catalysts on Hydrogen Production through Diesel Steam Reforming Reaction**
ARSLAN BOZDAĞ A., Deniz Kaynar A. D., SEZGİ N. A., DOĞU T.
4th Anatolian School of Catalysis, 11 - 14 September 2017
- XXI. **Effect of Nickel impregnated Catalyst Supports on Hydrogen Yield in the Ethanol Steam Reforming Reaction**

- SARIYER M., SEZGİ N. A., Doğu T.
4th Anatolian School of Catalysis, 11 - 14 September 2017
- XXII. **Development of Bifunctional Catalyst for the Single-Step Synthesis of Dimethyl Ether**
Şener M. İ., SEZGİ N. A., Doğu T., OKTAR N.
4th Anatolian School of Catalysis, 11 - 14 September 2017
- XXIII. **Hydrogen Production through Diesel Steam Reforming Reaction over CeO₂ or W Incorporated Al₂O₃ Supported Ni Catalysts**
ARSLAN BOZDAĞ A., Deniz Kaynar A. D., SEZGİ N. A., Doğu T.
Hypothesis XII, Siracusa, Italy, 28 - 30 June 2017
- XXIV. **Development of Tungsten or Ceria Incorporated Mesoporous Alumina Supported Nickel Catalysts for Hydrogen Production through Diesel Steam Reforming Reaction**
ARSLAN BOZDAĞ A., Deniz Kaynar A. D., SEZGİ N. A., Doğu T.
2 nd hydrogen Technologies Congress, 15 - 18 March 2017
- XXV. **Sorption Enhanced Steam Reforming of Ethanol with Ceria-SBA-15 Supported Nickel Catalysts**
SARIYER M., ARSLAN BOZDAĞ A., SEZGİ N. A., Doğu T.
2nd International Hydrogen Technologies Congress, 15 - 18 March 2017
- XXVI. **Polypropylene Boron Nitride Nanotube Composites Synthesis Modification Processing and Characterization**
Sezgi N. A., Bayram G., Demir C.
2016 MRS Fall Meeting, Massachusetts, United States Of America, 27 November - 02 December 2016
- XXVII. **Tungstofosforik Asit Yüklü Mezogözenekli Alümina Katalizörlerin DME Üretimi İçin Sentezlenmesi**
Şener M. İ., SEZGİ N. A., Doğu T., Doğu G., OKTAR N.
12. Ulusal Kimya Mühendisliği Kongresi, Turkey, 23 - 26 August 2016
- XXVIII. **Ni SBA 15 Katalizörü Üzerinde Adsorpsiyon Destekli Buharlı Etanol Reformlanmanın Elektrik Isıtmalı ve Mikrodalga Reaktörde İncelenmesi**
SARIYER M., ARSLAN BOZDAĞ A., SEZGİ N. A., Doğu T.
12. Ulusal Kimya Mühendisliği Kongresi, Turkey, 23 - 26 August 2016
- XXIX. **Sentez Gazından DME Metanol Üretimi**
PEKMEZCİ B., Erkal D., OKTAR N., Doğu G., SEZGİ N. A., Doğu T.
12. Ulusal Kimya Mühendisliği, Turkey, 23 - 26 August 2016
- XXX. **Development of Ceria Alumina Supported Nickel Catalysts for Steam Reforming of Diesel**
ARSLAN BOZDAĞ A., Deniz Kaynar A. D., SEZGİ N. A., Doğu T.
21 st World Hydrogen Energy Conference 2016, 13 - 16 June 2016
- XXXI. **Effects of Synthesis Route Calcination Temperature on Structural and Acidic Properties of Mesoporous gamma Al₂O₃**
Erkal D., Bekmezci B., OKTAR N., Doğu G., SEZGİ N. A., Doğu T.
The 6th Catalysis Conference, Turkey, 27 - 30 April 2016
- XXXII. **Synthesis of Tungstophosphoric Acid Incorporated Mesoporous Alumina Catalysts for Methanol Dehydration in DME Synthesis**
Şener M. İ., SEZGİ N. A., Doğu T., Doğu G., OKTAR N.
The 6th Catalysis Conference, Turkey, 27 - 30 April 2016
- XXXIII. **Ceria Incorporated Alumina Supported Nickel Catalysts for Steam Reforming Reaction of Diesel Fuel**
ARSLAN BOZDAĞ A., Deniz Kaynar A. D., SEZGİ N. A., Doğu T.
The 6 th Catalysis Conference, Turkey, 27 - 30 April 2016
- XXXIV. **Sorption Enhanced Steam Reforming of Ethanol Over Ni Impregnated SBA 15 Catalys**
SARIYER M., ARSLAN BOZDAĞ A., SEZGİ N. A., Doğu T.
The 6 th Catalysis Conference, Turkey, 27 - 30 April 2016
- XXXV. **Pyrolysis of polystyrene over SAPO 34**
Tülay B., SEZGİ N. A., Timur D.
2015 AIChE Annual Meeting, 8 - 13 November 2015
- XXXVI. **Effect of metal incorporation on the structural properties of SBA 15**

SARIYER M., Aslan A., SEZGİ N. A., Dogu T.

PPM 2015, 15 - 18 September 2015

XXXVII. Sorption enhanced reforming of ethanol in a microwave reactor

Dogu T., Aslan A., SARIYER M., SEZGİ N. A.

12th international conference on gas-liquid and gas-liquid-solid reactor engineering, 28 June - 01 July 2015

XXXVIII. Mechanism and characterization studies on boron carbides deposited by chemical vapor deposition technique

Karaman M., Özbelge H. Ö., Sezgi N. A., Doğu T.

Symposium on Materials and Technologies for Direct Thermal-to-Electric Energy Conversion held at the 2005 MRS Fall Meeting, Massachusetts, United States Of America, 28 November - 02 December 2005, vol.886, pp.455-456

XXXIX. Kinetic Studies of Boron Carbide Formation by Chemical Vapor Deposition

Noyan D., HÖ Ö., Dogu T., SEZGİ N. A.

35 inci yıl ve üç uluslu Amerika-Türkiye-İsrail konferansı, 9 - 11 March 1999

XL. Mechanism of CVD of Boron by Hydrogen Reduction of BCl₃

SEZGİ N. A., Dogu T., HÖ O.

ISCRE 15, 13 - 16 September 1998

XLI. Polyethylene Pyrolysis Theory and Experiments for Molecular Weight Distribution Kinetics

SEZGİ N. A., SC W., Smith J., BJ M.

ISCRE 15, 13 September 1998 - 16 September 1996

XLII. Kinetic Studies for CVD of Boron in an Impinging Jet Reactor

SEZGİ N. A., Dogu T., HÖ O.

Fifth World Congress of Chemical Engineering Technologies Critical to a Changing World, 14 - 18 July 1996

Supported Projects

SEZGİ N. A., SARIYER M., Project Supported by Higher Education Institutions, Etanolün Döngüsel Adsorpsiyon Destekli Buharlı Reformlanması, 2021 - 2022

SEZGİ N. A., Project Supported by Higher Education Institutions, HİDROJEN ÜRETİMİ İÇİN SİLİKA AEROJEL İLE METANOL BUHAR REFORMLANMASI, 2017 - 2017

SEZGİ N. A., Project Supported by Higher Education Institutions, MİKRODALGA REAKTÖRDE METANOLÜN BUHARLI REFORMLANMASINDAN HİDROJEN ÜRETİMİ, 2017 - 2017

SEZGİ N. A., Project Supported by Higher Education Institutions, ADSORPSİYON DESTEKLİ METANOLÜN BUHAR REFORMLANMASI REAKSİYONU İÇİN BAKIR YÜKLENMİŞ MEZOGÖZENEKLİ KARBON KATALİZÖRLERİN SENTEZLENMESİ, 2017 - 2017

SEZGİ N. A., ARSLAN BOZDAĞ A., Project Supported by Higher Education Institutions, DİZELİN REFORMLANMA REAKSİYONLARINDA KULLANILMAK ÜZERE CeO₂ ve W İÇERİKLİ KATALİZÖR DESTEK MALZEMESİ GELİŞTİRİLMESİ, 2017 - 2017

SEZGİ N. A., Project Supported by Higher Education Institutions, ALKOLERİN YENİ KATALİZÖRLERLE MİKRODALGA REAKTÖRDE ADSORPSİYON DESTEKLİ BUHARLI REFORMLANMASI, 2017 - 2017

SEZGİ N. A., Project Supported by Higher Education Institutions, Mezogözenekli Zirkonyum Oksit destek maddesi ile etanolün buharlı reformlanması, 2014 - 2014

SEZGİ N. A., BURSALI T., Project Supported by Higher Education Institutions, SAPO-34 Katalizörünün Plastik Atıkların Bozunma Reaksiyonundaki Performansı, 2013 - 2014

SEZGİ N. A., BURSALI T., Project Supported by Higher Education Institutions, PLASTİK ATIKLARIN SAPO-34 KATALİZÖRÜ ÜZERİNDE PİROLİZİ, 2013 - 2013

SEZGİ N. A., Project Supported by Higher Education Institutions, Polietilenin Katalitik Parçalanması, 2008 - 2008

Metrics

Publication: 83
Citation (WoS): 479
Citation (Scopus): 512
H-Index (WoS): 13
H-Index (Scopus): 13

Non Academic Experience

METU
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University of California, Davis
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