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International Researcher IDs

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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**
Sarıyer 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., OZBELGE 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. **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
- II. **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
- III. **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
- IV. **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
- V. **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
- VI. **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
- VII. **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

- VIII. **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
- IX. **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
- X. **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
- XI. **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
- XII. **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
- XIII. **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
- XIV. **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
- XV. **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
- XVI. **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
- XVII. **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
- XVIII. **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
- XIX. **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
- XX. **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
- XXI. **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
- XXII. **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
- XXIII. **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
- XXIV. **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
- XXV. **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
- XXVI. **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
- XXVII. **Pyrolysis of polystyrene over SAPO 34**
Tülay B., SEZGİ N. A., Timur D.
2015 AIChE Annual Meeting, 8 - 13 November 2015
- XXVIII. **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
- XXIX. **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
- XXX. **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
- XXXI. **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
- XXXII. **Mechanism of CVD of Boron by Hydrogen Reduction of BCl₃**
SEZGİ N. A., Dogu T., HÖ O.
ISCRE 15, 13 - 16 September 1998
- XXXIII. **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
- XXXIV. **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., Bursalı 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: 75
Citation (WoS): 390
Citation (Scopus): 464
H-Index (WoS): 12
H-Index (Scopus): 13

Non Academic Experience

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University of California, Davis
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