

Personal Information

Email: uner@metu.edu.tr

Education Information

Doctorate, Iowa State University Of Science And Technology, Kimya Mühendisliği, United States Of America 1988 - 1994

Post Graduate, Middle East Technical University, Graduate School of Natural and Applied Sciences, Kimya Mühendisliği (YI) (Tezli), Turkey 1985 - 1987

Under Graduate, Middle East Technical University, Faculty of Engineering, Department of Chemical Engineering, Turkey 1980 - 1985

Research Areas

Process and Reactor Design, Basic Operations and Thermodynamics, Engineering and Technology

Academic Titles / Tasks

Professor, Middle East Technical University, Faculty of Engineering, Department of Chemical Engineering, 2005 - Continues

Professor, University Of California, Berkeley, College Of Chemistry, Chemical And Biomolecular Engineering, 2015 - 2016

Associate Professor, Middle East Technical University, Faculty of Engineering, Department of Chemical Engineering, 1999 - 2004

Assistant Professor, Middle East Technical University, Faculty of Engineering, Department of Chemical Engineering, 1995 - 1999

Professional Experience

Head of Department, Middle East Technical University, Faculty of Engineering, Department of Chemical Engineering, 2010 - 2013

Deputy Head of Department, Middle East Technical University, Faculty of Engineering, Department of Chemical Engineering, 2004 - 2006

Deputy Head of Department, Middle East Technical University, Faculty of Engineering, Department of Chemical Engineering, 1998 - 2001

Advising Theses

İpek Torun B., Üner D., HYDROGEN ADSORPTION ON CU (I)-EXCHANGED ZEOLITES, Post Graduate, İ.Altıparmak(Student), 2019

ÜNER D., Effect of cobalt doping on photocatalytic activity of lead titanate, Post Graduate, S.ODABAŞI(Student), 2018

ÜNER D., Optimization of operation temperatures and durations during solar thermal water splitting towards greater energy efficiencies, Post Graduate, E.YAVUZYLMAZ(Student), 2016

ÜNER D., YILMAZ A., Hydrothermal synthesis of rare earth ions doped LaBO₃ and GdBO₃ orthoborates and their photoluminescence properties, Post Graduate, S.VAHED(Student), 2016

ÜNER D., The role of precious metal nanoparticles on the oxygen exchange kinetics from ceria, Post Graduate, D.KAYA(Student), 2016

ÜNER D., Characterization of adsorption-desorption properties of oxygen and water on mixed oxides, Post Graduate,

C.ATEŞ(Student), 2015

ÜNER D., Population balance modeling of TiO₂ nanoparticles synthesized via thermal hydrolysis method, Post Graduate, A.DOĞAN(Student), 2015

ÜNER D., Carbon dioxide reforming of methane on Ni-based bimetallic catalysts, Doctorate, H.AY(Student), 2014

ÜNER D., Design constraints for gas-liquid catalytic microreactors, Post Graduate, N.BERKER(Student), 2014

ÜNER D., Carbon dioxide reduction in reverse flow reactors, Post Graduate, N.CAN(Student), 2013

ÜNER D., Syngas production over reducible metal oxides, Post Graduate, A.ÇALIŞAN(Student), 2013

ÜNER D., Characterization and reactivity studies for chemical loop gasification of high sulfur lignites, Doctorate, A.KANCA(Student), 2013

ÜNER D., Photocatalytic oxidation of NO_x over TiO₂ containing cement based materials, Post Graduate, İ.BAYAR(Student), 2013

ÜNER D., Photocatalytic activity in nano sized titanium dioxide structures, Doctorate, M.MEHMET(Student), 2012

ÜNER D., Supported Ru based ammonia synthesis catalysts, Post Graduate, M.YASİN(Student), 2012

ÜNER D., Hydrogen generation from conventional fuels over mesoporous mixed oxide catalysts under time interrupted reaction conditions, Doctorate, M.CAN(Student), 2011

ÜNER D., Photocatalytic carbon dioxide reduction in liquid media, Post Graduate, B.İPEK(Student), 2011

ÜNER D., Synthesis and characterization of ethanol electro-oxidation catalysts, Doctorate, H.DEMİR(Student), 2010

ÜNER D., The effects of platinum particle size to the efficiency of a dye sensitized solar cell (DSSC), Post Graduate, H.BERK(Student), 2010

ÜNER D., NO_x storage and reduction over Ce-Zr mixed oxide supported catalysts, Post Graduate, B.ÇAĞLAR(Student), 2009

ÜNER D., Photocatalytic and photoelectrochemical water splitting over ordered titania nanotube arrays, Post Graduate, O.KARSLIOĞLU(Student), 2009

ÜNER D., Acidity characterization and adsorption characteristics of cobalt and lead doped SBA15 mesoporous materials, Post Graduate, Ö.GÜNER(Student), 2007

ÜNER D., Methane activation via bromination over sulfated zirconia/SBA-15 catalysts, Doctorate, V.DEĞİRMENCİ(Student), 2007

ÜNER D., Synthesis and characterization of Co-Pb/SBA-15 mesoporous catalysts, Post Graduate, B.AKÇA(Student), 2006

ÜNER D., Structure and activity predictions on mono- and bi-metallic catalysts, Post Graduate, E.ERÜNAL(Student), 2006

ÜNER D., Diesel soot oxidation catalyst filter system design, Post Graduate, V.EYÜP(Student), 2005

ÜNER D., Artificial photosynthesis: Dye assisted photocatalytic reduction of carbon dioxide over pure and platinum containing titania, Post Graduate, Ö.ÖZCAN(Student), 2005

ÜNER D., Structure sensitivity of selective CO oxidation over precious metal catalysts, Post Graduate, B.ATALIK(Student), 2005

ÜNER D., Steam reforming of ethanol over sol-gel-synthesized mixed oxide catalysts, Post Graduate, H.ÖNDER(Student), 2005

ÜNER D., Adsorption calorimetry in supported catalyst characterization: Adsorption structure sensitivity on Pt/gamma-Al₂O₃, Post Graduate, M.ÜNER(Student), 2004

ÜNER D., CO oxidation on alumina supported Pd-Pt mono and bi-metallic catalysts: Temperature hysteresis, Post Graduate, S.KAYA(Student), 2002

ÜNER D., Soot oxidation catalysis, Post Graduate, M.KEMAL(Student), 2002

ÜNER D., Thermal and photocatalytic oxidation of carbon monoxide over titanium dioxide-effects of platinum deposition, Post Graduate, İ.ÖZEN(Student), 2001

ÜNER D., Effect of cerium dioxide on carbonmonoxide oxidation reaction mechanism over Pt/γ-Al₂O₃ catalyst, Post Graduate, U.ORAN(Student), 2001

ÜNER D., Catalytic combustion of diesel soot, Post Graduate, B.DERNAİKA(Student), 2001

ÜNER D., Assessment of exhaust emissions from gasoline fueled motor vehicles, Post Graduate, R.GÜLTEKİN(Student), 2001

ÜNER D., DOĞU T., Determination of rate processes and parameters for hydrogen adsorption on silica supported ruthenium catalysts, Post Graduate, A.İLDEŞ(Student), 1999

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

- **Double Perovskite Structure Induced by Co Addition to PbTiO₃: Insights from DFT and Experimental Solid-State NMR Spectroscopy**
Mete E., Odabasi S., Mao H., Chung T., Ellialtioglu S., Reimer J. A. , Gulseren O., ÜNER D.
JOURNAL OF PHYSICAL CHEMISTRY C, vol.123, pp.27132-27139, 2019 (Journal Indexed in SCI)
- **Fundamentals of hydrogen storage processes over Ru/SiO₂ and Ru/Vulcan**
ASLAN M. Y. , ÜNER D.
INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, vol.44, pp.18903-18914, 2019 (Journal Indexed in SCI)
- **Finding the optimum between volatility and cycle temperatures in solar thermochemical hydrogen production: Pb/PbO pair**
Calisan A., Ogulgonen C. G. , Kincal S., ÜNER D.
INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, vol.44, pp.18671-18681, 2019 (Journal Indexed in SCI)
- **In situ and downstream sulfidation reactivity of PbO and ZnO during pyrolysis and hydrogenation of a high-sulfur lignite**
KANCA A., ÜNER D.
INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, vol.44, pp.18827-18835, 2019 (Journal Indexed in SCI)
- **Steam methane reforming over structured reactors under concentrated solar irradiation**
Calisan A., Ogulgonen C. G. , Yilmaz A., ÜNER D., Kincal S.
INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, vol.44, pp.18682-18693, 2019 (Journal Indexed in SCI)
- **Facilitating role of Pd for hydrogen, oxygen and water adsorption/desorption processes from bulk CeO₂ and CeO₂/gamma- Al₂O₃**
Kaya D., Singh D., Kincal S., ÜNER D.
CATALYSIS TODAY, vol.323, pp.141-147, 2019 (Journal Indexed in SCI)
- **Enhancement of hydrogen storage capacity of multi-walled carbon nanotubes with palladium doping prepared through supercritical CO₂ deposition method**
ERÜNAL E., Ulusal F., ASLAN M. Y. , GÜZEL B., ÜNER D.
INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, vol.43, pp.10755-10764, 2018 (Journal Indexed in SCI)
- **Effect of mechanical activation on thermal energy storage properties of Co₃O₄/CoO system**
Nekokar N., Pourabdoli M., Hamidi A. G. , ÜNER D.
ADVANCED POWDER TECHNOLOGY, vol.29, pp.333-340, 2018 (Journal Indexed in SCI)
- **H₂ Adsorption on Cu(I)-SSZ-13**
İpek B., POLLOCK R. A. , Brown C. M. , ÜNER D., Lobo R. F.
JOURNAL OF PHYSICAL CHEMISTRY C, vol.122, pp.540-548, 2018 (Journal Indexed in SCI)
- **Following the structure and reactivity of Tuncbilek lignite during pyrolysis and hydrogenation**
Kanca A., Dodd M., Reimer J. A. , ÜNER D.
FUEL PROCESSING TECHNOLOGY, vol.152, pp.266-273, 2016 (Journal Indexed in SCI)
- **Using spilled over hydrogen in NH₃ synthesis over supported Ru catalysts**
ÜNER D., ASLAN M. Y.
CATALYSIS TODAY, vol.272, pp.49-57, 2016 (Journal Indexed in SCI)
- **Dry reforming of methane over CeO₂ supported Ni, Co and Ni-Co catalysts**
Ay H., ÜNER D.
APPLIED CATALYSIS B-ENVIRONMENTAL, vol.179, pp.128-138, 2015 (Journal Indexed in SCI)
- **The influence of relative humidity on photocatalytic oxidation of nitric oxide (NO) over TiO₂**
ÜNER D., Bayar I., Tabari T.
APPLIED SURFACE SCIENCE, vol.354, pp.260-266, 2015 (Journal Indexed in SCI)
- **Time interrupted behavior of ammonia synthesis over ruthenium based catalysts**
ÜNER D., ASLAN M. Y. , Uner N. B.
ABSTRACTS OF PAPERS OF THE AMERICAN CHEMICAL SOCIETY, vol.249, 2015 (Journal Indexed in SCI)
- **Effect of process control agents on synthesizing nano-structured 2Mg-9Ni-Y catalyst by mechanical milling and its catalytic effect on desorption capacity of MgH₂**
Hosseini-Gourajoubi F., Pourabdoli M., ÜNER D., Raygan S.
ADVANCED POWDER TECHNOLOGY, vol.26, pp.448-453, 2015 (Journal Indexed in SCI)
- **A comparative study for synthesis methods of nano-structured (9Ni-2Mg-Y) alloy catalysts and effect of**

the produced alloy on hydrogen desorption properties of MgH₂

Pourabdoli M., Raygan S., Abdizadeh H., ÜNER D.

INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, vol.38, pp.16090-16097, 2013 (Journal Indexed in SCI)

- **Determination of kinetic parameters and hydrogen desorption characteristics of MgH₂-10 wt% (9Ni-2Mg-Y) nano-composite**

Pourabdoli M., Raygan S., Abdizadeh H., ÜNER D.

INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, vol.38, pp.11910-11919, 2013 (Journal Indexed in SCI)

- **On the mechanism of photocatalytic CO₂ reduction with water in the gas phase**

ÜNER D., Oymak M. M.

CATALYSIS TODAY, vol.181, pp.82-88, 2012 (Journal Indexed in SCI)

- **Comparative photodecolorization of red dye by anatase, rutile (TiO₂), and wurtzite (ZnO) using response surface methodology**

Khameneh S., Sadmezhaad S. K. , Rad M. K. , ÜNER D.

TURKISH JOURNAL OF CHEMISTRY, vol.36, pp.121-135, 2012 (Journal Indexed in SCI)

- **NO oxidation and NO_x storage over Ce-Zr mixed oxide supported catalysts**

Cağlar B., ÜNER D.

CATALYSIS COMMUNICATIONS, vol.12, pp.450-453, 2011 (Journal Indexed in SCI)

- **Sulfated Zirconia Modified SBA-15 Catalysts for Cellobiose Hydrolysis**

Degirmenci V., ÜNER D., Cinlar B., Shanks B. H. , YILMAZ A., van Santen R. A. , Hensen E. J. M.

CATALYSIS LETTERS, vol.141, pp.33-42, 2011 (Journal Indexed in SCI)

- **CO₂ utilisation by photocatalytic conversion to methane and methanol**

Uner D., OYMAK M. M. , Ipek B.

INTERNATIONAL JOURNAL OF GLOBAL WARMING, vol.3, pp.142-162, 2011 (Journal Indexed in SCI)

- **Carbon Nanotube Structures as Support for Ethanol Electro-Oxidation Catalysis**

Kivrak H., Kuliyevev S., Tempel H., Schneider J., Uner D.

INTERNATIONAL JOURNAL OF CHEMICAL REACTOR ENGINEERING, vol.9, 2011 (Journal Indexed in SCI)

- **Selective methane bromination over sulfated zirconia in SBA-15 catalysts**

Degirmenci V., YILMAZ A., ÜNER D.

CATALYSIS TODAY, vol.142, pp.30-33, 2009 (Journal Indexed in SCI)

- **Pt-incorporated anatase TiO₂(001) surface for solar cell applications: First-principles density functional theory calculations**

METE E., ÜNER D., GÜLSEREN O., ELLİALTIÖĞLU S. Ş.

PHYSICAL REVIEW B, vol.79, 2009 (Journal Indexed in SCI)

- **Determination of the dispersion of supported Pt particles by gas-phase and liquid-phase measurements**

Kivrak H., Mastalir A., Kiraly Z., ÜNER D.

CATALYSIS COMMUNICATIONS, vol.10, pp.1002-1005, 2009 (Journal Indexed in SCI)

- **On the Structure Sensitivity of CO Oxidation on Alumina Supported Pd-Pt Bimetallic Catalysts**

Kaya S., Erunal E., Shaltaf R., Ellialtioglu S., ÜNER D.

TURKISH JOURNAL OF CHEMISTRY, vol.33, pp.11-21, 2009 (Journal Indexed in SCI)

- **Oxidation States and the Acidity of Ordered Arrays of Co-Pb Mixed Oxide Nanoparticles Templated in SBA15**

Akca B., Guner O., Can M., YILMAZ A., ÜNER D.

TOPICS IN CATALYSIS, vol.49, pp.187-192, 2008 (Journal Indexed in SCI)

- **Synthesis and NMR Characterization of Titanium and Zirconium Oxides Incorporated in SBA-15**

Degirmenci V., Erdem O. F. , Ergun O., YILMAZ A., Michel D., ÜNER D.

TOPICS IN CATALYSIS, vol.49, pp.204-208, 2008 (Journal Indexed in SCI)

- **CO Oxidation over Mono and Bi-Metallic Sequentially Impregnated Pd-Pt Catalysts**

Kaya S., ÜNER D.

TURKISH JOURNAL OF CHEMISTRY, vol.32, pp.645-652, 2008 (Journal Indexed in SCI)

- **Dye sensitized CO₂ reduction over pure and platinized TiO₂**

Ozcan O., Yukruk F., Akkaya E. U. , Uner D.

TOPICS IN CATALYSIS, vol.44, pp.523-528, 2007 (Journal Indexed in SCI)

- **Effect of molecular and electronic structure on the light-harvesting properties of dye sensitizers**

Mete E., Uner D., Cakmak M., Gulseren O., Ellialtoglu S.

JOURNAL OF PHYSICAL CHEMISTRY C, vol.111, pp.7539-7547, 2007 (Journal Indexed in SCI)

- **Sulfated zirconia in SBA-15 structures with strong Bronsted acidity as observed by H-1 MAS NMR spectroscopy**

Degirmenci V., Erdem O. F. , Yilmaz A., Michel D., Uner D.

CATALYSIS LETTERS, vol.115, pp.79-85, 2007 (Journal Indexed in SCI)

- **Dye sensitized artificial photosynthesis in the gas phase over thin and thick TiO₂ films under UV and visible light irradiation**

Ozcan O., Yukruk F., Akkaya E. U. , Uner D.

APPLIED CATALYSIS B-ENVIRONMENTAL, vol.71, pp.291-297, 2007 (Journal Indexed in SCI)

- **Liquid chromatography as a novel method for determination of the dispersion of supported Fd particles**

Kiraly Z., Mastalir A., Csaszar A., Demir H., Uner D., Findenegg G. H.

JOURNAL OF CATALYSIS, vol.245, pp.267-271, 2007 (Journal Indexed in SCI)

- **Preparation and morphological characterization of a catalytic soot oxidation SiC foam filter**

Caglar B., ÜNER D.

TURKISH JOURNAL OF CHEMISTRY, vol.31, pp.487-492, 2007 (Journal Indexed in SCI)

- **Preparation and characterization of ordered TiO₂ photocatalysts: films and mesoporous structures**

Erguen O., Karlioglu O., YILMAZ A., ÜNER D.

TURKISH JOURNAL OF CHEMISTRY, vol.31, pp.501-508, 2007 (Journal Indexed in SCI)

- **Structure sensitivity of selective CO oxidation over Pt/gamma-Al₂O₃**

Atalik B., Uner D.

JOURNAL OF CATALYSIS, vol.241, pp.268-275, 2006 (Journal Indexed in SCI)

- **A novel catalyst for diesel soot oxidation**

Uner D., Demirkol M., Demaika B.

APPLIED CATALYSIS B-ENVIRONMENTAL, vol.61, pp.334-345, 2005 (Journal Indexed in SCI)

- **Methane to higher hydrocarbons via halogenation**

Degirmenci V., Uner D., Yilmaz A.

CATALYSIS TODAY, vol.106, pp.252-255, 2005 (Journal Indexed in SCI)

- **Testing molten metal oxide catalysts over structured ceramic substrates for diesel soot oxidation**

Genc V., Altay F., Uner D.

CATALYSIS TODAY, vol.105, pp.537-543, 2005 (Journal Indexed in SCI)

- **Adsorption calorimetry in supported catalyst characterization: Adsorption structure sensitivity on Pt/gamma-Al₂O₃**

Uner D., Uner M.

THERMOCHIMICA ACTA, vol.434, pp.107-112, 2005 (Journal Indexed in SCI)

- **Mechanisms of CO oxidation reaction and effect of chlorine ions on the CO oxidation reaction over Pt/CeO₂ and Pt/CeO₂/gamma-Al₂O₃ catalysts**

Oran U., Uner D.

APPLIED CATALYSIS B-ENVIRONMENTAL, vol.54, pp.183-191, 2004 (Journal Indexed in SCI)

- **Oxygen adsorption on Pt/TiO₂ catalysts**

Uner D., Tapan N., Ozen I., Uner M.

APPLIED CATALYSIS A-GENERAL, vol.251, pp.225-234, 2003 (Journal Indexed in SCI)

- **Use of Seydisehir alumina as a support for Co oxidation catalysts**

Mbaraka I., Uner D.

CHEMICAL ENGINEERING COMMUNICATIONS, vol.190, pp.1073-1084, 2003 (Journal Indexed in SCI)

- **A simplified approach to determine the activation energies of uncatalyzed and catalyzed combustion of soot**

Demaiika B., Uner D.

APPLIED CATALYSIS B-ENVIRONMENTAL, vol.40, pp.219-229, 2003 (Journal Indexed in SCI)

- **Kinetics of hydrogen adsorption and Desorption on silica-supported Pt, Rh, and Ru catalysts studied by solid state H-1 NMR**

Savargaonkar N., Uner D., Pruski M., King T.

LANGMUIR, vol.18, pp.4005-4009, 2002 (Journal Indexed in SCI)

- **Improved adhesive properties and bonding performance of HTPB-based polyurethane elastomer by using aziridine type bond promoter**
Gercel B., Unel D., Pekel F., Ozkar S.
JOURNAL OF APPLIED POLYMER SCIENCE, vol.80, pp.806-814, 2001 (Journal Indexed in SCI)
- **FTIR characterization of Ru/SiO₂ catalyst for ammonia synthesis**
Sayan S., Kantcheva M., Suzer S., Uner D.
JOURNAL OF MOLECULAR STRUCTURE, vol.481, pp.241-245, 1999 (Journal Indexed in SCI)
- **The deactivation behavior of the TiO₂ used as a photo-catalyst for benzene oxidation**
Uner D., Ozbek S.
CATALYST DEACTIVATION 1999, vol.126, pp.411-414, 1999 (Journal Indexed in SCI)
- **Structure sensitive hydrogen adsorption: Effect of Ag on Ru/SiO₂ catalysts**
Savargaonkar N., Narayan R., Pruski M., Uner D., King T.
JOURNAL OF CATALYSIS, vol.178, pp.26-33, 1998 (Journal Indexed in SCI)
- **A note on N(2)O+CO reaction mechanism over Rh surfaces**
Uner D.
JOURNAL OF CATALYSIS, vol.178, pp.382-385, 1998 (Journal Indexed in SCI)
- **A sensible mechanism of alkali promotion in Fischer-Tropsch synthesis: Adsorbate mobilities**
Uner D.
INDUSTRIAL & ENGINEERING CHEMISTRY RESEARCH, vol.37, pp.2239-2245, 1998 (Journal Indexed in SCI)
- **XPS and in-situ IR investigation of Ru/SiO₂ catalyst**
Sayan S., Suzer S., Uner D.
JOURNAL OF MOLECULAR STRUCTURE, vol.410, pp.111-114, 1997 (Journal Indexed in SCI)
- **The effects of alkali promoters on the dynamics of hydrogen chemisorption and syngas reaction kinetics on Ru/SiO₂ surfaces**
Uner D., Savargaonkar N., Pruski M., King T.
DYNAMICS OF SURFACES AND REACTION KINETICS IN HETEROGENEOUS CATALYSIS, vol.109, pp.315-324, 1997 (Journal Indexed in SCI)
- **OPTIMIZATION OF THE VOLUMETRIC HYDROGEN CHEMISORPTION TECHNIQUE FOR DISPERSIONS OF RU/SiO₂ CATALYSTS**
UNER D., PRUSKI M., KING T.
JOURNAL OF CATALYSIS, vol.156, pp.60-64, 1995 (Journal Indexed in SCI)
- **CHARACTERIZATION OF SILICA CATALYST SUPPORTS BY SINGLE AND MULTIPLE-QUANTUM PROTON NMR-SPECTROSCOPY**
HWANG S., UNER D., KING T., PRUSKI M., GERSTEIN B.
JOURNAL OF PHYSICAL CHEMISTRY, vol.99, pp.3697-3703, 1995 (Journal Indexed in SCI)
- **THE ROLE OF ALKALI PROMOTERS IN FISCHER-TROPSCH SYNTHESIS ON RU/SiO₂ SURFACES**
UNER D., PRUSKI M., KING T.
TOPICS IN CATALYSIS, vol.2, pp.59-69, 1995 (Journal Indexed in SCI)
- **HYDROGEN CHEMISORPTION ON POTASSIUM-PROMOTED SUPPORTED RUTHENIUM CATALYSTS**
UNER D., PRUSKI M., GERSTEIN B., KING T.
JOURNAL OF CATALYSIS, vol.146, pp.530-536, 1994 (Journal Indexed in SCI)
- **AN APPROXIMATE SOLUTION FOR NON-NEWTONIAN FLOW IN ECCENTRIC ANNULI**
UNER D., OZGEN C., TOSUN I.
INDUSTRIAL & ENGINEERING CHEMISTRY RESEARCH, vol.27, pp.698-701, 1988 (Journal Indexed in SCI)

Book & Book Chapters

- **On the Limits of Photocatalytic Water Splitting**
İPEK TORUN B., ÜNER D.
in: Water Chemistry, Dr. Murat Eyvaz, Editor, IntechOpen, pp.1-23, 2019
- **Artificial Photosynthesis from a Chemical Engineering Perspective**
İPEK B., ÜNER D.
in: Artificial Photosynthesis, Dr Mohammad Najafpour, Editor, Intech, Rijeka, pp.13-36, 2012

Refereed Congress / Symposium Publications in Proceedings

- **H2 Storage at Ambient Temperature using Cu(I)-SSZ-39**
İPEK TORUN B., altiparmak i., ÜNER D.
4. Uluslararası Hidrojen Teknolojileri Konferansı, 20 - 23 June 2019
- **Using nonstoichiometric Co-Pb mixed metal oxides for solar thermal synthesis of hydrogen and CO**
Calisan A., Kincal S., ÜNER D.
248th National Meeting of the American-Chemical-Society (ACS), San-Francisco, Costa Rica, 10 - 14 August 2014, vol.248

Supported Projects

ÜNER D., ODABAŞI S., YAVUZYILMAZ E., KAHRAMAN O., HALVACIV., ASLAN M. Y. , KAYA D., ÇALIŞAN A., Project Supported by Higher Education Institutions, Adsorplanmış moleküllerin NMR spektroskopisi ile incelenmesi, 2017 - 2017

ÜNER D., ASLAN M. Y. , AKBAYRAK S., Project Supported by Higher Education Institutions, Rutenyum nanokümlerinin amonyak sentezinde katalizör olarak kullanımının incelenmesi, 2016 - 2016

ÜNER D., ATEŞ C., Project Supported by Higher Education Institutions, Karışık Yapılı Metal Oksitlerde Oksijen Ve Su Adsorpsiyon-Desorpsiyon Özelliklerinin Karakterizasyonu, 2014 - 2015

ÜNER D., Project Supported by Higher Education Institutions, FEN BİLİMLERİ ENSTİTÜSÜ/LİSANSÜSTÜ TEZ PROJESİ, 2014 - 2015

ÜNER D., ASLAN M. Y. , ATEŞ C., Project Supported by Higher Education Institutions, Ru/SBA-15 ve Kobalt-Oksit Sentezi için Kül Fırın Alımı, 2014 - 2014

ÜNER D., ASLAN M. Y. , Project Supported by Higher Education Institutions, Soy metal amonyak sentezi katalizörlerinin hidrojenle zehirlenme mekanizmasının taşma olayları ile ilişkisinin incelenmesi, 2013 - 2013

ÜNER D., Project Supported by Higher Education Institutions, Gazların Katalizör Yüzeyine Adsorplanma Isılarının Mikroklorimetre Yöntemi İle Tayini, 2012 - 2012

ÜNER D., Project Supported by Higher Education Institutions, Gaz Fazda Benzenin Katalitik Hidrojenlenmesi, Kinetik İncelenmesi Ve Mekanizmanın Aydınlatılması., 2011 - 2011

ÜNER D., Project Supported by Higher Education Institutions, Katalitik Tepkimelerin Gaz Fazında İncelenmesi, 2011 - 2011

ÜNER D., Project Supported by Higher Education Institutions, Destekli değerli metal katalizörler üzerine adsorplanmış moleküllerin drifts analizi karakterizasyonu., 2010 - 2010

Activities in Scientific Journals

Catalysis Reviews-Science And Engineering, Committee Member, 2016 - Continues

Catalysis Communications, Committee Member, 2010 - Continues

Scientific Refereeing

EU Framework Program Project, H2020-European Research Council (ERC) Project, european research council, Belgium, May 2018

EU Framework Program Project, H2020-European Research Council (ERC) Project, european research council, Belgium, March 2018

Tasks In Event Organizations

Çalık P., Ayrancı Tansık İ., Büküşoğlu E., Bat E., İpek Torun B., ÜNER D., 9th Eastern Mediterranean Chemical Engineering Conference, Scientific Congress, Ankara, Turkey, Eylül 2018

Invited Congress and Symposium Activities

9th eastern mediterranean conference in Chemical engineering, Invited Speaker, Ankara, Turkey, 2018

Citations

Total Citations (WOS):1266

h-index (WOS):21

Invited Talks

Storage of Solar Energy in Chemical Bonds, Conference, 9th Eastern Medditerranean Chemical Engineering Conference, Turkey, September 2018