

Assoc. Prof. ÇERAĞ DİLEK HACIHABİBOĞLU

Personal Information

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Education Information

Doctorate, Wayne State University, Kimya Mühendisliği Anabilim Dalı, United States Of America 2001 - 2006

Post Graduate, Middle East Technical University, Graduate School of Natural and Applied Sciences, Kimya Mühendisliği (YI) (Tezli), Turkey 1998 - 2001

Under Graduate, Middle East Technical University, Faculty of Engineering, Department of Chemical Engineering, Turkey 1994 - 1998

Research Areas

Chemical Engineering and Technology, Chemical Technologies, Basic Operations and Thermodynamics, Engineering and Technology

Academic Titles / Tasks

Associate Professor, Middle East Technical University, Faculty of Engineering, Department of Chemical Engineering, 2018 - Continues

Associate Professor, Middle East Technical University, Faculty of Engineering, Department of Chemical Engineering, 2014 - Continues

Assistant Professor, Middle East Technical University, Faculty of Engineering, Department of Chemical Engineering, 2012 - 2018

Assistant Professor, Yeditepe Üniversitesi, Mühendislik-Mimarlık Fakültesi, Kimya Mühendisliği Bölümü, 2010 - 2012

Lecturer PhD, Georgia Institute Of Technology, Mühendislik Fakültesi, Kimya Ve Biyomoleküler Mühendisliği, 2006 - 2008

Research Assistant, Wayne State University, Mühendislik Fakültesi, Kimya Mühendisliği Ve Malzeme Bilimi , 2001 - 2006

Research Assistant, Middle East Technical University, Faculty of Engineering, Department of Chemical Engineering, 1998 - 2001

Professional Experience

Deputy Head of Department, Middle East Technical University, Faculty of Engineering, Department of Chemical Engineering, 2013 - 2014

Advising Theses

Dilek Hacihabiboğlu Ç., Karakaş G., Investigation of deep eutectic solvents as a reaction medium for metal chloride based chemical heat pumps, Post Graduate, E.GÖZDE(Student), 2019

Dilek Hacihabiboğlu Ç., Hasırcı N., Foaming of highly-crystalline PLLA films with CO₂-philic hybrid liquid cell nucleators, Post Graduate, Y.ÇULHACIOĞLU(Student), 2019

Dilek Hacihabiboğlu Ç., SOLUBILITY OF CO₂-PHILIC POLYHEDRAL OLIGOMERIC SILSESQUOXANES IN SUPERCRITICAL CARBON DIOXIDE, Post Graduate, C.DEMİRTAŞ(Student), 2019

Dilek Hacihabiboğlu Ç., PHASE EQUILIBRIA OF BINARY SYSTEMS WITH CARBON DIOXIDE AND CARBON

DIOXIDE-PHILIC MATERIALS, Post Graduate, B.DUMANLILAR(Student), 2019

DİLEK HACIHABİBOĞLU Ç., Effects of functional groups on the solubilities of polyhedral oligomeric silsesquioxanes (POSS) in supercritical carbon dioxide, Post Graduate, B.KANYA(Student), 2015

DİLEK HACIHABİBOĞLU Ç., Polymer foaming with supercritical carbon dioxide, Post Graduate, N.NOVENDRA(Student), 2015

Research Infrastructure Information

Dilek Hacıhabiboğlu Ç., Supercritical fluids and high-pressure laboratory, January 2012

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

- **Phase Behavior of Carbon Dioxide and Polyhedral Oligomeric Silsesquioxanes with Two Different Functional Groups**
Dumanlılar B., Dilek Ç.
Journal of Supercritical Fluids, vol.163, 2020 (Journal Indexed in SCI)
- **Highly Crystalline Poly(L-lactic acid) Porous Films Prepared with CO₂-philic, Hybrid, Liquid Cell Nucleators**
Culhacioglu Y., HASIRCIN., Dilek Ç.
INDUSTRIAL & ENGINEERING CHEMISTRY RESEARCH, vol.58, pp.22541-22550, 2019 (Journal Indexed in SCI)
- **Poly(methyl methacrylate) hybrid syntactic foams with hollow glass microspheres and polyhedral oligomeric silsesquioxanes**
Ozkutlu M., Dilek Ç., BAYRAM G.
JOURNAL OF APPLIED POLYMER SCIENCE, vol.137, 2019 (Journal Indexed in SCI)
- **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 (Journal Indexed in SCI)
- **Enhanced solubility of siloxy-modified polyhedral oligomeric silsesquioxanes in supercritical carbon dioxide**
Demirtas C., DİLEK HACIHABİBOĞLU Ç.
JOURNAL OF SUPERCRITICAL FLUIDS, vol.143, pp.358-364, 2019 (Journal Indexed in SCI)
- **Effects of hollow glass microsphere density and surface modification on the mechanical and thermal properties of poly(methyl methacrylate) syntactic foams**
ÖZKUTLU DEMİREL M., DİLEK HACIHABİBOĞLU Ç., BAYRAM G.
COMPOSITE STRUCTURES, vol.202, pp.545-550, 2018 (Journal Indexed in SCI)
- **Density functional theory study of interactions between carbon dioxide and functionalized polyhedral oligomeric silsesquioxanes**
Tezsevin I., Demirtas C., ÖNAL I., DİLEK HACIHABİBOĞLU Ç.
INTERNATIONAL JOURNAL OF QUANTUM CHEMISTRY, vol.117, 2017 (Journal Indexed in SCI)
- **Supercritical processing of CO₂-philic polyhedral oligomeric silsesquioxane (POSS)-poly(L-lactic acid) composites**
Novendra N., Hasirci N., DİLEK HACIHABİBOĞLU Ç.
JOURNAL OF SUPERCRITICAL FLUIDS, vol.117, pp.230-242, 2016 (Journal Indexed in SCI)
- **Effects of functional groups on the solubilities of polyhedral oligomeric silsesquioxanes (POSS) in supercritical carbon dioxide**
Kanya B., DİLEK HACIHABİBOĞLU Ç.
JOURNAL OF SUPERCRITICAL FLUIDS, vol.102, pp.17-23, 2015 (Journal Indexed in SCI)
- **Reversible ionic surfactants for gold nanoparticle synthesis**
Ethier A. L. , Hart E. C. , Saunders S. R. , Biddinger E. J. , Fadhel A. Z. , DİLEK HACIHABİBOĞLU Ç., Pollet P., Eckert C. A. , Liotta C. L.
GREEN MATERIALS, vol.2, pp.54-61, 2014 (Journal Indexed in SCI)
- **Supercritical carbon dioxide-soluble polyhedral oligomeric silsesquioxane (POSS) nanocages and**

polymer surface modification

DİLEK Ç.

JOURNAL OF SUPERCRITICAL FLUIDS, vol.73, pp.171-177, 2013 (Journal Indexed in SCI)

- **Sustainable Debinding and Recovery of CO₂-Soluble Binders**

DİLEK HACIHABİBOĞLU Ç., Hong L., Enick R. M. , Gulari E., Manke C. W.

INDUSTRIAL & ENGINEERING CHEMISTRY RESEARCH, vol.51, pp.9101-9105, 2012 (Journal Indexed in SCI)

- **More Benign Synthesis of Palladium Nanoparticles in Dimethyl Sulfoxide and Their Extraction into an Organic Phase**

Liu J., Ruffini N., Pollot P., Llopis-Mestre V., Dilek C., Eckert C. A. , Liotta C. L. , Roberts C. B.

INDUSTRIAL & ENGINEERING CHEMISTRY RESEARCH, vol.49, pp.8174-8179, 2010 (Journal Indexed in SCI)

- **One-component, switchable ionic liquids derived from siloxylated amines**

Blasucci V., DİLEK Ç., Huttenhower H., John E., Llopis-Mestre V., Pollet P., Eckert C. A. , Liotta C.

CHEMICAL COMMUNICATIONS, pp.116-118, 2009 (Journal Indexed in SCI)

- **Phase behavior of 1,3,5-tri-tert-butylbenzene-carbon dioxide binary system**

DİLEK HACIHABİBOĞLU Ç., Manke C. W. , Gulari E.

JOURNAL OF SUPERCRITICAL FLUIDS, vol.43, pp.421-429, 2008 (Journal Indexed in SCI)

- **Supercritical CO₂ intercalation of layered silicates**

Serhatkulu G., DİLEK Ç., Gulari E.

JOURNAL OF SUPERCRITICAL FLUIDS, vol.39, pp.264-270, 2006 (Journal Indexed in SCI)

- **Phase behavior of beta-D galactose pentaacetate-carbon dioxide binary system**

DİLEK Ç., Manke C. W. , Gulari E.

FLUID PHASE EQUILIBRIA, vol.239, pp.172-177, 2006 (Journal Indexed in SCI)

- **Removal of Boron from Aqueous Solutions by Continuous Polymer Enhanced Ultrafiltration with Polyvinyl Alcohol**

DİLEK Ç., Hilmi Önder Ö., BIÇAK N., YILMAZ L.

Separation Science and Technology, vol.37, pp.1257-1271, 2002 (Journal Indexed in SCI)

Refereed Congress / Symposium Publications in Proceedings

- **The Contribution of Metal Loaded Mesoporous Catalysts to Recycling of Polylactic Acid**

SİVRİ S., DİLEK HACIHABİBOĞLU Ç., SEZGİ N. A.

EuropaCat 2019: 14th European Congress on Catalysis, Aachen, Germany, 18 - 23 August 2019

- **Supercritical CO₂ Foaming of PLLA with Liquid CO₂-Phylic Cell Nucleators**

Yağmur Ç., HASIRCIN., DİLEK HACIHABİBOĞLU Ç.

17th European Meeting on Supercritical Fluids EMSF 2019, Ciudad-Real, Spain, 8 - 11 April 2019

- **Enhancing the CO₂-philicity of Organic-Inorganic Hybrid Polyhedral Oligomeric Silsesquioxanes**

Dumanlılar B., Demirtaş C., DİLEK HACIHABİBOĞLU Ç.

17th European Meeting on Supercritical Fluids (EMSF2019), 8 - 11 April 2019

- **Highly CO₂-philic polyhedral oligomeric silsesquioxanes (POSS) as hybrid cell nucleators for more efficient supercritical carbon dioxide foaming of poly(methyl methacrylate) (PMMA)**

ÖZKUTLU DEMİREL M., BAYRAM G., DİLEK HACIHABİBOĞLU Ç.

17th European Meeting on Supercritical Fluids EMSF 2019, Ciudad-Real, Spain, 8 - 11 April 2019

- **Enhancement of Properties of PMMA Hybrid Syntactic Foams Containing Polyhedral Oligomeric Silsesquioxane (POSS)**

ÖZKUTLU DEMİREL M., DİLEK HACIHABİBOĞLU Ç., BAYRAM G.

ICCS21, Italy, 4 - 07 September 2018, vol.1, pp.41-42

- **Metal Yüklü Silika Aerojel Destekli Katalizörlerin Polilaktik Asidin (PLA) Bozunması Üzerine Etkisinin İncelenmesi**

Sivri S., Dilek Hacıhabiboğlu Ç., Sezgi N. A.

UKMK 13, Van, Turkey, 3 - 06 September 2018

- **Phase Equilibria of Binary Systems with CO₂ and Bifunctional Polyhedral Oligomeric Silsesquioxanes**

Dumanlılar B., Dilek Hacıhabiboğlu Ç.

9th Eastern Mediterranean Chemical Engineering Conference, Ankara, Turkey, 31 August - 02 September 2018,

pp.1

- **INVESTIGATION OF DEEP EUTECTIC SOLVENTS AS REACTION MEDIUM FOR METAL CHLORIDE BASED CHEMICAL HEAT PUMPS**

Gözde E., Dilek Hacıhabiboğlu Ç., Karakaş G.

9th Eastern Mediterranean Chemical Engineering Conference EMCC9 , Ankara, Turkey, 31 August - 02 September 2018, pp.1

- **SUPERCRITICAL CO2 FOAMING OF PLLA WITH LIQUID CO2-PHILIC CELL NUCLEATORS**

Çulhacıoğlu Y., Hasırcı N., Dilek Hacıhabiboğlu Ç.

9th Eastern Mediterranean Chemical Engineering Conference, Ankara, Turkey, 31 August 2018 - 01 December 2019, pp.1

- **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

- **Mechanical and Thermal Characterization of PMMA Syntactic Foams**

ÖZKUTLU M., DİLEK Ç., BAYRAM G.

20th International Conference on Composite Structures, ICCS 20, Paris, France, 4 - 07 September 2017

- **Phase equilibria of polyhedral oligomeric silsesquioxanes POSS carbon dioxide binary systems**

demirtaş c., DİLEK Ç.

Green Solvents Conference 2016, 16 - 19 October 2016

- **POLİHEDRAL OLİGOMERİK SİLSEKUIOKSAN POSS KARBONDİOKSİTSİSTEMLERİNİN FAZ DENGELERİ VE ÇÖZÜNÜRLÜK MODELLEMELERİ**

demirtaş c., DİLEK Ç.

Ulusal Kimya Mühendisliği Kongresi UKMK12, Turkey, 23 - 26 August 2016

- **Polyhedral Oligomeric Silsesquioxanes, Solubility in Supercritical Carbon Dioxide and Application in Porous Polymers**

Novendra N., Kanya B., Güney A., HASIRCI N., DİLEK HACIHABİBOĞLU Ç.

7th Green Solvents Conference-Advanced Fluids in Science and Application, Dresden, Germany, 19 - 22 October 2014

- **Reversible ionic liquids as switchable surfactants for the synthesis of gold nanoparticles**

nixon e., rohan a., fadhel a., jha r., talreja m., pollet p., DİLEK Ç., eckert c., liotta c.

242nd National Meeting of the American-Chemical-Society (ACS), 28 August - 01 September 2011

Supported Projects

DİLEK HACIHABİBOĞLU Ç., DUMANLILAR B., Project Supported by Higher Education Institutions, CO2 VE CO2 UYUMLU MADDELERİ İÇEREN İKİLİ SİSTEMLERİN FAZ DENGESİ, 2018 - 2019

DİLEK HACIHABİBOĞLU Ç., ÇULHACIOĞLU Y., Project Supported by Higher Education Institutions, BİYOUYUMLU VE BİYOÇÖZÜNÜR POLY (L-LAKTİK ASİT) VE ASETİLENMİŞ ŞEKER SİSTEMLERİNİN SÜPER KRİTİK KARBON DİOKSİT İLE İŞLENMESİ, 2018 - 2019

DİLEK HACIHABİBOĞLU Ç., DUMANLILAR B., Project Supported by Higher Education Institutions, İKİ FARKLI FONKSİYONEL GRUPLU NANOKAFES YAPILI MALZEMELER İLE SÜPERKRİTİK KARBONDİOKSİT İKİLİ SİSTEMLERİNİN FAZ DENGESİ, 2018 - 2019

DİLEK HACIHABİBOĞLU Ç., ÇULHACIOĞLU Y., Project Supported by Higher Education Institutions, Biyouyumlu Ve Biyoçözünür Polimer Ve Asetillenmiş Şeker Sistemlerinin Süperkritik Karbondioksit İle İşlenmesi, 2017 - 2019

DİLEK HACIHABİBOĞLU Ç., Project Supported by Higher Education Institutions, CO2 VE CO2 İLE UYUMLU MADDELERİ İÇEREN İKİLİ SİSTEMLERİN FAZ DENGESİ, 2017 - 2017

DİLEK HACIHABİBOĞLU Ç., Project Supported by Higher Education Institutions, BİYOUYUMLU VE BİYOÇÖZÜNÜR POLİ VE ASETİLENMİŞ ŞEKER SİSTEMLERİNİN SÜPERKRİTİK KARBON DİOKSİT İLE İŞLENMESİ, 2017 - 2017

DİLEK HACIHABİBOĞLU Ç., DEMİRTAŞ C., Project Supported by Higher Education Institutions, SİLOKSAN GRUPLU NANOKAFES YAPILI MALZEMELER İLE SÜPERKRİTİK KARBONDİOKSİT İKİLİ SİSTEMLERİNİN FAZ DENGESİ, 2016 - 2016

DİLEK HACIHABİBOĞLU Ç., Project Supported by Higher Education Institutions, FEN BİLİMLERİ ENSTİTÜSÜ/LİSANSÜSTÜ TEZ PROJESİ, 2014 - 2016

DİLEK HACIHABİBOĞLU Ç., Project Supported by Higher Education Institutions, FEN BİLİMLERİ ENSTİTÜSÜ/LİSANSÜSTÜ TEZ PROJESİ, 2014 - 2015

DİLEK HACIHABİBOĞLU Ç., Project Supported by Higher Education Institutions, FEN BİLİMLERİ ENSTİTÜSÜ/LİSANSÜSTÜ TEZ PROJESİ, 2014 - 2015

DİLEK HACIHABİBOĞLU Ç., Project Supported by Higher Education Institutions, FEN BİLİMLERİ ENSTİTÜSÜ/LİSANSÜSTÜ TEZ PROJESİ, 2014 - 2014

DİLEK HACIHABİBOĞLU Ç., Project Supported by Higher Education Institutions, FEN BİLİMLERİ ENSTİTÜSÜ/LİSANSÜSTÜ TEZ PROJESİ, 2014 - 2014

DİLEK HACIHABİBOĞLU Ç., Project Supported by Higher Education Institutions, SÜPERKRİTİK KARBON DİOKSİT İLE GÖZENEKLİ BİYOMALZEMELERİN OLUŞTURULMASI, 2013 - 2014

Activities in Scientific Journals

Journal Of Supercritical Fluids, Committee Member, 2020 - Continues

Memberships / Tasks in Scientific Organizations

The Safety and Chemical Engineering Education (SACChE), Member, 2016 - Continues, United States Of America

European Federation of Chemical Engineering (EFCE) Working Party on High Pressure Technologies, Member, 2014 - Continues, Germany

The International Society for Advancement of Supercritical Fluids ISASF, Member, 2012 - Continues, United States Of America

TMMOB KİMYA MÜHENDİSLERİ ODASI, Member, 1998 - Continues, Turkey

American Chemical Society (ACS), Member, 2010 - 2018, United States Of America

Scientific Refereeing

INDUSTRIAL & ENGINEERING CHEMISTRY RESEARCH, SCI Journal, July 2020

JOURNAL OF SUPERCRITICAL FLUIDS, SCI Journal, July 2020

TUBITAK Project, 2218 - Yurt İçi Doktora Sonrası Araştırma Burs Programı, Turkey, June 2020

TUBITAK Project, 2218 - Yurt İçi Doktora Sonrası Araştırma Burs Programı, Middle East Technical University, Turkey, June 2020

TUBITAK Project, 1001 - Program for Supporting Scientific and Technological Research Projects, Middle East Technical University, Turkey, May 2019

TUBITAK Project, 1001 - Program for Supporting Scientific and Technological Research Projects, Middle East Technical University, Turkey, May 2019

TUBITAK Project, 1001 - Program for Supporting Scientific and Technological Research Projects, Middle East Technical University, Turkey, May 2019

Journal Of Supercritical Fluids, SCI Journal, November 2018

TUBITAK Project, 1501 - Industry R & D Projects Support Program, Middle East Technical University, Turkey, July 2018

Citations

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