

CURRICULUM VITAE

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EDUCATION

PhD : Chemical Engineering, University of Pittsburgh, Pittsburgh, PA (USA)
M.Sc : Chemical Engineering, The Pennsylvania State University, University Park, PA (USA)
B.Sc : Chemical Engineering, Hacettepe University, Ankara (TURKEY)

COURSES TAUGHT

ChE 311 Heat and Mass Transfer (3-2)4
ChE 312 Separation Processes (4-0)4
ChE 321 Thermodynamics II (3-0)3
ChE 410 Chemical Engineering Lab II (0-4)2
ChE 411 Chemical Engineering Lab III (0-4)2
ChE 420 Engineering Economics and Design (2-4)4
ChE 421 Engineering Design (2-4)4
ChE 534 Advanced Mass Transfer (3-0)3

RESEARCH PROJECTS

- Preparation of dual anticancer agents loaded liposomes coated with protamine, IYTE Scientific Research Projects, Project no: 2019İYTE0256, 2019-2020
- Drug Delivery via Targeted Microbubbles as Ultrasound Contrast Agent and Their Use in Cancer Treatment via Controlled Local Drug Release, The Scientific & Technological Research Council of Turkey (TUBITAK)-1003 Primary Subjects R&D Funding Program, Project no: 213M668, 2014-2017

- In-Vitro and In-Vivo Characterization of First National Product of Ultrasound Contrast Agent Microbubbles, The Scientific & Technological Research Council of Turkey (TUBITAK)-1003 Primary Subjects R&D Funding Program, Project No:113M270, 2013-2016
- Development and Characterization of Ultrasound Contrast Agents, The Scientific & Technological Research Council of Turkey (TUBITAK)-1001 Scientific and Technological Research Projects Funding Program, Project No: 109M494, 2009-2012
- Nano Calcite Production, The Scientific & Technological Research Council of Turkey (TUBITAK)-1001 Scientific and Technological Research Projects Funding Program, Project No:110M104, 2010-2013
- Investigation of Protein Adsorption on Biological Systems, IYTE Scientific Research Projects, Project no: 2011İYTE05, 2011-2013
- Development of sensors Sensitive to Microorganisms, IYTE Scientific Research Projects, Project no: 2008İYTE12, 2009-2010
- Design and Characterization of Ultrasound Contrast Agents used in Cardiovascular Imaging, IYTE Scientific Research Projects, Project no: 2007İYTE06, 2007-2009

PUBLICATIONS

Journal Articles:

- Kilic S, 'Effect of Temperature on Stability of Lipid Microbubbles' Journal of the Turkish Chemical Society, Section A: Chemistry, 2019, 6(3), 439-450
- Kilic S, Enick RM, Beckman EJ; "Fluoroacrylate-aromatic acrylate copolymers for viscosity enhancement of carbon dioxide" J. Supercritical Fluids 146 (2019) 38–46
- Kilic S, Bolukcu ES, "Phase behavior of DSPC/PEG40St mixtures at higher emulsifier contents" Colloids and Surfaces B: Biointerfaces 171 (2018) 368–376
- Kilic S, 'Stable Nano Calcite Synthesis' Journal of the Turkish Chemical Society, Section A: Chemistry, 2018, 5(2), 869-880
- Kilic S, "Quantification of PEG(40)St squeeze out from DSPC/PEG(40)St monolayers at higher molar ratios" Colloids and Surfaces A- Physicochemical and Engineering Aspects 2018, 551, 58-64
- Ulkeryildiz E, Kilic S, Ozdemir E, "Nano-CaCO₃ Synthesis by Jet Flow. Colloids and Surfaces A: Physicochemical and Engineering Aspects 2017, 512, 34-40
- Molva M, Kilic S, Ozdemir E, "Effect of Carbonic Anhydrase on CaCO₃ Crystallization in Alkaline Solution" Energy & Fuels 2016, 30(12), 10686-10695
- Ulkeryildiz E, Kilic S, Ozdemir E, "Rice-like Hollow Nano-CaCO₃ Synthesis", Journal of Crystal Growth 2016, 450, 174-180
- Kilic S. Toprak G., Ozdemir E., "Stability of CaCO₃ in Ca(OH)₂ Solution", International Journal of Mineral Processing 2016, 147, 1-9

- Kilic, S, Wang, Y, Johnson, K, Enick, RM, Beckman, EJ; "Influence of tert-amine groups on the solubility of polymers in CO₂" *Polymer* 2009, 50 (11), 2436
- Villanueva FS, Lu E, Bowry S, Kilic S, Tom E, Wang J, Gretton J, Pacella JJ, Wagner WR: "Myocardial Ischemic Memory Imaging Using Molecular Echocardiography." *Circulation* 2007, 115, 345-352
- Kilic S, Michalik S, Wang Y., Johnson JK., Enick RM, Beckman EJ; "Phase Behavior of Oxygen-Containing Polymers in CO₂" *Macromolecules* 2007, 40, 1332-1341
- Kilic S, Michalik S, Wang Y., Johnson JK, Enick RM, Beckman EJ; "Effect of Grafted Lewis Base Groups on the Phase Behavior of Model Poly(dimethyl siloxanes) in CO₂" *Ind. Eng. Chem. Res.* 2003, 42, 6415
- Shen Z, McHugh M. A., Xu J, Belardi J, Kilic S, Mesiano A, Bane S, Karnikas C, Beckman EJ, Enick RM; "CO₂-Solubility of Oligomers and Polymers that Contain the Carbonyl Group" *Polymer* 2003, 44, 1491
- Burleigh TD, Shi C, Kilic S, Kovacik S, Thompson T, Enick RM; "Self-Assembled Monolayers of Perfluoroalkyl Amideethanethiols, Fluoroalkylthiols and Alkylthiols for the Prevention of Silver Tarnish" *Corrosion* 2002, 58, 49
- Huang Z, Shi C, Xu J, Kilic S, Enick RM, Beckman EJ; "Enhancement of the Viscosity of Carbon dioxide using Styrene/fluoroacrylate Copolymers" *Macromolecules* 2000, 33, 5437
- Shi C, Huang Z, Kilic S, Xu J, Enick RM, Beckman EJ; "The Gelation of CO₂: A sustainable Route to the Creation of Microcellular Materials" *Science* 1999, 286, 1540

Abstracts in SCI index

- Bowry S, Kilic S, Wang J, Gretton J, Ottoboni S, Wagner WR, Villanueva FS; "A Novel Double-Shelled Microsphere Targeted To Leukocyte Adhesion Molecules Adheres To Inflamed Microcirculation In Vivo" *J. American College of Cardiology*, 2006, 47(4), 149A
- Wang J, Kilic S, Tom E, Lu E, Schellenberger U, Schreiner GF, Wagner WR, Villanueva FS; "Vascular Endothelial Growth Factor-Conjugated Ultrasound Microbubbles Adhere to Angiogenic Receptors" *Circulation* 2005 112 (17): U562
- Lu E, Kilic S, Bowry S, Wang J, Gretton J, Tom E, Wagner WR, Villanueva FS; "Targeted Echocardiographic Imaging of Endothelial Selectins Identifies Ischemic Memory" *Circulation* 2005, 112 (17): U561
- Kilic S, Lu E, Tom E, Wagner WR, Villanueva FS; "Modifications of Lipid Microbubble Shell Composition Affect Intravascular Kinetics." *J. American College of Cardiology* 2005, 45(3) 271A
- Enick RM, Beckman EJ, Huang Z, Xu J, Kilic S, Shi C; "Improved geologic sequestration using carbon dioxide thickeners" *ACS* 2000, 220 U398

Conferences:

- Kilic S, Ozdemir E, "PEG40St Squeeze out from Lipid Monolayers" Science and Applications of Thin Films, Conference & Exhibition (SATF 2018), Cesme-Izmir, Turkey, September 17-21, 2018

- Onercan C., Ozdemir E, Kilic Ozdemir S., ‘Effect of Liposomal Cholesterol on Transition of Doxorubicin through Bilayers’ International Porous Powder Materials Symposium and Exhibition, PPM2017, Kusadası-Aydın, September 12-15, 2017
- Guven H., Didin E., Musa F., Onercan C., Hanoglu B.D., Kilic Ozdemir S., Ozdemir E, ‘Design and Synthesis of Nano Drug Delivery Vehicles’ International Porous Powder Materials Symposium and Exhibition, PPM2017, Kusadası-Aydın, September 12-15, 2017
- Serinan E. O., Baris M., Kurkcü G., Calisir M., Aydın M., Onercan C., Aktas S., Altun Z., Kilic-Ozdemir S., Yilmaz O., Ozdemir E., “The Effect of Doxorubicin Loaded Microbubbles on Breast Cancer in in vivo Experimental Animal Model“ VI. International Congress of Molecular Medicine, Istanbul-Turkey, 22-25 May 2017
- Kurkcü G., Ayaz I.U., Coskun S., Ozdemir E., Kilic-Ozdemir S., “Stability-Surface Morphology Relationship of Microbubbles” International Porous Powder Materials Symposium and Exhibition, PPM2015, Cesme-Izmir, September 15-18, 2015
- Hayta E. N., Yilmaz M., Onercan O., Ozdemir E., Kilic-Ozdemir S., “Novel Application of Liposomes as Drug Delivery Vehicles” International Porous Powder Materials Symposium and Exhibition, PPM2015, Cesme-Izmir, September 15-18, 2015
- Yoruk O.G., Kilic-Ozdemir S., Ozdemir E., “Hollow Nano CaCO₃ and their Separation from its Slurry” International Porous Powder Materials Symposium and Exhibition, PPM2015, Cesme-Izmir, September 15-18, 2015
- Ozdemir E., Kilic-Ozdemir S., Yoruk O.G., Aslan H., Akca G., Tanoglu M., Ozyuzer L., “Vacuum Insulating Panels with Nano Calcite Particles” International Porous Powder Materials Symposium and Exhibition, PPM2013, Cesme-Izmir, September 15-18, 2015
- Kilic S., Kurkcü G., Coskun S., Ozdemir E., ‘Surface Morphology of Microbubbles as Ultrasound Contrast Agent’ 12th International Conference on Nanosciences & Nanotechnologies (NN15), Thessaloniki, Greece, 7-10 July 2015
- Ozdemir E, Ayaz U, Kilic S, ‘Stability of Microbubbles under Ultrasound’ 12th International Conference on Nanosciences & Nanotechnologies (NN15), Thessaloniki, Greece, 7-10 July 2015
- Kilic-Ozdemir S, Ozdemir E., Sagdic EA, Bolukcu ES, Kose D., “Microbubbles as Ultrasound Contrast Agents” 10th Nanoscience and Nanotechnology Conference, Yeditepe University, Istanbul, June 16-21, 2014
- Yoruk OG, Kilic-Ozdemir S., Ozdemir E., “Aggregation of Nano CaCO₃ in Nano Filtration” 10th Nanoscience and Nanotechnology Conference, Yeditepe University, Istanbul, June 16-21, 2014
- Ozdemir E, Kilic-Ozdemir S, Toprak G, Ulkeryildiz E, Alici SD, Molva M, “Hollow Nano CaCO₃ Synthesis” 10th Nanoscience and Nanotechnology Conference, Yeditepe University, Istanbul, June 16-21, 2014
- Colak F., Adivar E., Kose D., Kilic-Ozdemir S., “Investigation of Protein Adsorption onto PEGylated Surfaces” International Porous Powder Materials Symposium and Exhibition, PPM2013, Cesme-Izmir, September 3-6, 2013.
- Ozdemir E., Alici S.D., Kilic-Ozdemir S., “Large Scale production of Monodispersed Cubical Nano Calcites” International Porous Powder Materials Symposium and Exhibition, PPM2013, Cesme-Izmir, September 3-6, 2013.

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- Ozdemir E., Ulkeryildiz E., Kilic-Ozdemir S., “Method Development in Nano Calcite Synthesis” International Porous Powder Materials Symposium and Exhibition, PPM2013, Cesme-Izmir, September 3-6, 2013.
- Gezgin M., Kilic-Ozdemir S., “Flexible Polyurethane Foams Infused with Calcium Carbonate Particles as Fillers” International Porous Powder Materials Symposium and Exhibition, PPM2013, Cesme-Izmir, September 3-6, 2013.
- Ozdemir E., Kilic-Ozdemir S., Okur S., Bayram A., “Nano Calcite as Humidity Sensor” International Porous Powder Materials Symposium and Exhibition, PPM2013, Cesme-Izmir, September 3-6, 2013.
- Sagdic EA, Bolukcu ES, Kose D, Ozdemir E, Kilic-Ozdemir S, “Enhancement of Stability of Microbubbles As Ultrasound Contrast Agents” 244th American Chemical Society National Meeting, Philadelphia, PA, August 19-23, 2012
- Toprak G, Alici SD, Ulkeryildiz E, Kilic-Ozdemir S, Ozdemir S, “Nano Calcite Production” 244th American Chemical Society National Meeting, Philadelphia, PA, August 19-23, 2012 Sagdic EA, Ozdemir E, Kilic-Ozdemir S, “Increasing Microbubbles Stability through Intermolecular Interactions” 8th - Nanoscience and Nanotechnology Conference, Ankara, Turkey, June 25-29, 2012
- Bolukcu ES, Ozdemir E, Okur S, Kilic-Ozdemir S, “Micro- and Nano-Level Studies on Shell Structure of Microbubbles Used in Ultrasound Imaging” 8th Nanoscience and Nanotechnology Conference, Ankara, Turkey, June 25-29, 2012
- Kose D, Sagdic EA, Ozdemir E, Kilic-Ozdemir S, “Effect of Shear Stress on Microbubbles” 8th Nanoscience and Nanotechnology Conference, Ankara, Turkey, June 25-29, 2012
- Toprak G, Kilic-Ozdemir S, Ozdemir E, “Hollow Nano Calcite Production” 8th Nanoscience and Nanotechnology Conference, Ankara, Turkey, June 25-29, 2012
- Alici SD, Kilic-Ozdemir S, Ozdemir E, “Nano Calcite Production in Large Scale” 8th Nanoscience and Nanotechnology Conference, Ankara, Turkey, June 25-29, 2012
- Ulkeryildiz E, Kilic-Ozdemir S, Ozdemir E, “A Mechanism Proposed for Nano Calcite Production” 8th Nanoscience and Nanotechnology Conference, Ankara, Turkey, June 25-29, 2012
- Ozbakir O, Beceren B, Okur S, Ozdemir E, Kilic-Ozdemir S, “Optimization of Poly(ethylene glycol) Density for Preparation of Blood-Compatible Material” 7th Nanoscience and Nanotechnology Conference, Istanbul, Turkey, June 27-July 1, 2011
- Kose D, Binici D, Okur S, Ozdemir E, Kilic-Ozdemir S, “Phase Behavior and Morphology of Phospholipid Langmuir-Blodgett Monolayers” 7th Nanoscience and Nanotechnology Conference, Istanbul, Turkey, June 27-July 1, 2011
- Molva M, Meyva Y, Fidan O, Kilic-Ozdemir S, Özdemir E. “Production of Calcite from Aggregated Nano Clusters” 7th Nanoscience and Nanotechnology Conference, Istanbul, Turkey, June 27-July 1, 2011
- Akinci SZ, Okur S, Ozdemir E, Kilic-Ozdemir S, “Investigation of Shell Characteristics of Contrast Agents for Ultrasonography” 6th Nanoscience and Nanotechnology Conference, Izmir, Turkey, June 15-18, 2010

- Akinci SZ, Yoruk S, Sen AE, Ozdemir E, Okur S, Kilic-Ozdemir S, "Protein Adsorption on Cholesterol Incorporated Langmuir-Blodgett Phospholipid-Emulsifier Monolayers" 6th Nanoscience and Nanotechnology Conference, Izmir, Turkey, June 15-18, 2010
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- Akinci SZ, Bekat T, Özdemir E, Okur S, Kilic-Özdemir S, "Preparation of Microbubbles for Ultrasound Imaging" 9th National Chemical Engineering Congress, Ankara, Turkey, June 22-25, 2010
- Akinci SZ., Ceylan S., Bergama OE., Ozdemir E., Okur S., Kilic-Ozdemir S., "Towards the Development of Stable Ultrasound Contrast Agents" 5th Nanoscience and Nanotechnology Conference, Eskisehir, Turkey, June 8-12, 2009
- Kilic-Ozdemir S., Okur S., Ozdemir E., "Humidity Sensing Properties of PEG-40 LB films detected using QCM technique" 5th Nanoscience and Nanotechnology Conference, Eskisehir, Turkey, June 8-12, 2009
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- Wang J, Kilic S, Tom E, Lu E, Schellenberger U, Schreiner GF, Wagner WR, Villanueva FS; "Vascular Endothelial Growth Factor-Conjugated Ultrasound Microbubbles Adhere to Angiogenic Receptors" 78th Annual Scientific Session of the American-Heart-Association, Dallas, TX, Nov. 13-16, 2005
- Lu E, Kilic S, Bowry S, Wang J, Gretton J, Tom E, Wagner WR, Villanueva FS; "Targeted Echocardiographic Imaging of Endothelial Selectins Identifies Ischemic Memory" 78th Annual Scientific Session of the American-Heart-Association, Dallas, TX, Nov. 13-16, 2005
- Kilic S, Lu E, Tom E, Wagner WR, Villanueva FS; "Modifications of Lipid Microbubble Shell Composition Affect Intravascular Kinetics" 54th Annual Scientific Session of the American-College-of-Cardiology, Orlando, FL, March 6, 2005
- Kilic S, Michalik S, Enick RM, Beckman EJ; "Effect of Molecular Structure on Phase Behavior of Polymers in CO₂" AIChE Annual Meeting, Polymerization and Polymer Processing with Supercritical Fluids I, San Francisco, CA, Nov. 16-21, 2003
- Wang Y, Kilic S, Michalik S, Enick RM, Beckman EJ, Johnson, K; "Molecular Modeling Design and Optimization of Non-fluorous CO₂-philic Polymers" AIChE Annual Meeting, Thermodynamic and Transport Properties of Supercritical Fluids, San Francisco, CA, Nov. 16-21, 2003
- Kilic S, Michalik S, Enick RM, Beckman EJ; "Engineering of Non- fluorous CO₂-Philic Polymers Containing Lewis Bases" AIChE Annual Meeting, Thermodynamics and Transport Properties in Compressed and Supercritical Fluids, Indianapolis, IN, Nov. 3-8, 2002
- Kilic S, Enick RM, Beckman EJ; "The Effect of Spacer Length and Number of Aromatic Rings in the Copolymer of Aromatic Acrylate-Fluoroacrylate on CO₂ solubility and Viscosity Enhancement" AIChE Annual Meeting, Thermodynamics and Transport Properties of Supercritical Fluids, Reno, Nevada, Nov. 4-9, 2001

- Kilic S, Enick RM, Beckman EJ; “Carbon Dioxide Viscosity Enhancement Ability of Acrylate Copolymers Possessing Flexible Spacer and Aromatic Units” AIChE Annual Meeting, Poster Session: Transport & Thermodynamic Properties, Nov. 12-17, 2000 Los Angeles, CA.
- Enick RM, Beckman EJ, Huang Z, Xu J, Kilic S, Shi C; “Improved geologic sequestration using carbon dioxide thickeners” 219th American Chemical Society National Meeting San Francisco, CA, March 26-30, 2000
- Kilic S, Matsoukas T; “Dynamics of Silica Gels by Dynamic Light Scattering” 72nd ACS Colloid and Surface Science Symposium, June 21-24, 1998 University Park, PA.
- Kilic S, Matsoukas T; “Light Scattering from Inorganic Polymers” AIChE Annual Meeting, Los Angeles, CA, Nov. 16-21, 1997

PATENTS

- S. Kilic-Ozdemir, E. Ozdemir, “Design and Preparation of Targetable Microbubbles as Ultrasound Contrast Agents” Turkish Patent Institute, Application No: TR 2013/04317
- E. Ozdemir, S. Kilic-Ozdemir, “A Method for Calcite Production in Homogeneous Size Distribution, Hollow and Nano Sizes” Turkish Patent Institute, Patent no: TR 2013 00370 B