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### EDUCATION

- Ph.D. in Chemical Engineering  
The Pennsylvania State University, PA, USA, May 1998 (Advisor: J.Larry Duda)
- M.S. in Chemical Engineering  
Ege University, Izmir, Turkey, August 1993
- B.S. in Chemical Engineering  
Ege University, Izmir, Turkey, June 1991

### PROFESSIONAL EXPERIENCE

- Professor, Department of Chemical Engineering , Izmir Institute of Technology, 2007
- Associate Professor, Department of Chemical Engineering , Izmir Institute of Technology, 2002-2007
- Assistant Professor, Department of Chemical Engineering , Izmir Institute of Technology, 1998-2002

### RESEARCH EXPERIENCE AT OTHER UNIVERSITIES

- Postdoctoral Researcher  
Department of Chemical Engineering, The Pennsylvania State University, USA .  
March 1998 to July 1998.
- Research Assistant  
Department of Chemical Engineering, The Pennsylvania State University, USA.  
January 1994 to December 1997.
- Research Assistant  
Department of Chemical Engineering, Ege University, Izmir, Turkey  
September 1991 to August 1993.

### AWARDS AND HONORS

- Scholarship given by Turkish Government to Study Abroad , 1994-1998.
- Walter R. and Aura Lee Supina Graduate Fellowship in Chemical Engineering, 1997.
- L'Oréal Turkey For Woman In Science Young Woman Scientist Fellowship, 2007.

### PUBLICATIONS in JOURNALS CITED BY SCIENCE CITATION INDEX

- **Alsoy, S.** and J.L. Duda, "Drying of Solvent Coated Polymer Films", *Drying Technology*, **16**, 15- 44 (1998).
- **Alsoy, S.** and J.L. Duda, "Supercritical Devolatilization of Polymers", *AIChE Journal*, **44**, 582-590 (1998).
- **Alsoy, S.** "Modeling of Diffusion in Closed Cell Polymeric Foams", *J. of Cellular Plastics*, **35**, 247-271 (1999).
- **Alsoy, S.** and J.L. Duda, "Modeling of Multicomponent Drying of Polymer Films", *AIChE Journal*, **45**, 896-905 (1999).
- **Alsoy, S.** and J.L. Duda, "Modeling of Multilayer Drying of Polymer Films", *J. Polym. Sci: Part B: Polym. Phys*, **37**, 1665-1675 (1999).
- **Alsoy, S.**, and J.L. Duda, "Processing of Polymers with Supercritical Fluids", *Chem. Eng. & Tech.*, **22**, 971-973 (1999).
- Zielinski, J.M., and **S. Alsoy**, "Onsager Consistency Checks For Multicomponent Diffusion Models", *Journal of Polymer Science: Part B : Polymer Physics*, **39**, 1496-1504 (2001).
- **Alsoy, S.**, "Predicting Drying in Multiple-Zone Ovens", *Industrial and Engineering Chemistry Research*, **40**, 2995-3001 (2001).
- **Alsoy, S.**, and J.L. Duda, "Influence of Swelling and Diffusion-Induced Convection on Polymer Sorption Processes ", *AIChE Journal*, **48**, 1849-1855 (2002).
- **Altinkaya Alsoy, S.**, and B.Ozbas, "Modeling of Asymmetric Membrane Formation by Dry-Casting Method", *J. Membrane Science*, **230**, 71-89 (2004).
- Wong Sim-Siong Wong, **S. Alsoy Altinkaya** and Surya K. Mallapragada, "Drying of semicrystalline polymers: mathematical modeling and experimental characterization of poly(vinyl alcohol) films" *Polymer*, **45**, 5151-5161 (2004).
- **Altinkaya Alsoy, S.** "Errors associated with swelling in the analysis of polymer-solvent diffusion measurements" *Chemical Engineering Science*, **60** 269-277 (2005).
- **Altinkaya Alsoy, S.** , H. Yenal and B. Ozbas, "Membrane Formation By Dry-Cast Process. Model Validation Through Morphological Studies" *J. Membrane Science*, **249**, 163-172 (2005).
- Wong Sim-Siong Wong, **S. Alsoy Altinkaya** and Surya K. Mallapragada, "Understanding the Effect of Skin Formation on the Removal of Solvents from Semicrystalline Polymers" *J. Polym. Sci: Part B: Polym. Phys*. **43**, 3191-3204 (2005).

- **Alsoy Altinkaya S.**, Hacer Yenal, “In vitro Drug Release Rates From Asymmetric Membrane Tablet Coatings: Prediction of Phase Inversion Dynamics” *Biochemical Engineering Journal*, **28**, 131-139 (2006).
- Özge Topçuoğlu, **S. Alsoy Altinkaya**, Devrim Balköse, “Characterization of Waterborne Acrylic Based Paint Films and Measurement of Their Water Vapor Permeabilities” *Progress in Organic Coatings*, **56**, 269-278 (2006).
- **Altinkaya Alsoy, S.**, N. Ramesh and J.L. Duda, “Solvent sorption in a polymer-solvent system – Importance of swelling and heat effects” *Polymer*, **47**, 8228-8235 (2006).
- Wong S-S., **S. Alsoy Altinkaya** and S.K. Mallapragada. “Crystallization of poly(vinyl alcohol) during solvent removal: Infrared characterization and mathematical modeling” *Journal of Polymer Science Part B: Polymer Physics*, **45**, 930-935 (2007).
- Wong S-S., **S. Alsoy Altinkaya** and S.K. Mallapragada. “Multi-zone drying schemes for lowering the residual solvent content during multi-component drying of semicrystalline polymers”, *Drying Technology Journal*, **25**, 995-1002 (2007).
- Yürekli Y., **S. Alsoy Altinkaya**, J.M. Zielinski, “Solubility and Diffusivity of Methylmethacrylate (MMA) and Butylacrylate (BA) Monomers in a MMA-BA Copolymer”, *J. Polym. Sci. Part B: Polym. Phys.*, **45**, 1996-2006 (2007).
- Gemili S., E.S. Umdü, N. Yaprak, F.I. Ustok, F.Y.G. Yener, C.M. Gucbilmez, **S. Alsoy Altinkaya**, A. Yemenicioğlu. “Partial purification of hen egg white lysozyme by ethanol precipitation method and determination of the thermal stability of its lyophilized form”, *Turkish Journal of Agriculture and Forestry*, **31**, 125-134 (2007).
- Berkün, D. D. Balköse, F. Tıhmınlıoğlu, **S. A. Altinkaya**. “Sorption and Diffusion of Water Vapour on Edible Films”, *Journal of Thermal Analysis and Calorimetry*, **94**, 683-686 (2008).
- Yurekli, Y., **S. Alsoy Altinkaya**, “Measurement of ternary polymer/solvent equilibrium data by vapor-phase infrared spectroscopy”, *Fluid Phase Equilibria*, **277**, 35-41 (2009).
- Gemili, S., A. Yemenicioğlu, **S. Alsoy Altinkaya**. “Development of cellulose acetate based antimicrobial food packaging materials for controlled release of lysozyme”, *Journal of Food Engineering*, **90**, 453-462 (2009).
- Gemili, S., A. Yemenicioğlu, **S. Alsoy Altinkaya**. Development of antioxidant food packaging materials with controlled release properties”, *Journal of Food Engineering*, **96**, 325-332 (2009).
- **Alsoy Altinkaya, S.** “Predicting emission characteristics of volatile organic compounds from wet surface coatings”, *Chemical Engineering Journal*, **155**, 586-593 (2009).

- Mahlicli, F.Y., **S. Alsoy Altinkaya**. “The Effects of Urease Immobilization on the Transport Characteristics and Protein Adsorption Capacity of Cellulose Acetate Based Hemodialysis Membranes” *Journal of Materials Science: Materials in Medicine*, **20**, 2167-2179 (2009).
- Abaci, H.E., **S. Alsoy Altinkaya**. “Modeling of Hemodialysis Operation” *Annals of Biomedical Engineering*, **38**, 3347-3362 (2010)
- **Alsoy Altinkaya, S.** O. Topcuoglu, Y. Yurekli, D. Balkose. “The influence of binder content on the water transport properties of waterborne acrylic paints” *Progress in Organic Coatings*, **69**, 417-425 (2010).
- Guedidi, S., Y. Yurekli, A. Deratani, P. Déjardin, C. Innocent, **S. Alsoy Altinkaya**, S. Roudesli, A. Yemenicioglu. “Effect of enzyme location on activity and stability of Trypsin and Urease immobilized on porous membranes by using layer-by-layer self assembly of polyelectrolyte” *Journal of Membrane Science*, **365**, 59-67 (2010).
- Yurekli Y., **S. Alsoy Altinkaya**. “Catalytic Performances of Chemically Immobilized Urease Under Static and Dynamic Conditions: A Comparative Study” *Journal of Molecular Catalysis B: Enzymatic*, **71**, 36-44 (2011).
- Uz, M, **S. Alsoy Altinkaya**. “Development of Mono and Multilayer Antimicrobial Food Packaging Materials for Controlled Release of Potassium Sorbate” *Food Science and Technology*, **44**, 2302-2309 (2011).
- Mahlicli, F.Y., **S. Alsoy Altinkaya**, Y. Yurekli. “Preparation and characterization of polyacrylonitrile membranes modified with polyelectrolyte deposition for separating similar sized proteins”, *J. Membrane Science*, **415** 383-390 (2012).
- Mahlicli, F.Y., **S. Alsoy Altinkaya**. “Surface Modification of Polysulfone Based Hemodialysis Membranes with Layer by Layer Self Assembly of Polyethyleneimine/Alginate-Heparin: A Simple Polyelectrolyte Blend Approach for Heparin Immobilization”. *J. Materials Science-Materials in Medicine* **24**, 533-546 (2013).
- Mahlicli, F.Y., **S. Alsoy Altinkaya**. “Immobilization of alpha lipoic acid onto polysulfone membranes to suppress hemodialysis induced oxidative stress”. *J. Membrane Science* **449**, 27–37 (2014).
- G. Fiorani, O. Saoncella, P. Kaner, **S. Alsoy Altinkaya**, A. Figoli, M. Bonchio, M. Carraro. “Chitosan-Polyoxometalate Nanocomposites: Synthesis, Characterization and Application as Antimicrobial Agents”. *Journal of Cluster Science*: **25**, 839-854 (2014)
- Mahlicli F.Y., Y. Şen, M. Mutlu, **S. Alsoy Altinkaya**, “Immobilization of superoxide

dismutase/catalase onto polysulfone membranes to suppress hemodialysis-induced oxidative stress: A comparison of two immobilization methods”, *J. Membrane Science* **479**, 175–189 (2015).

- Uz, Metin; S.K. Mallapragada, **S. Alsoy Altinkaya**. “Responsive pentablock copolymers for siRNA delivery”, *RSC ADVANCES* **5**, 43515-43527 (2015).
- Galiano, F; A. Figoli; SA Deowan; D. Johnson; **S. Alsoy Altinkaya**; L. Veltri; G. De Luca; R. Mancuso; N. Hilal; B. Gabriele; J. Hoinkis, “A step forward to a more efficient wastewater treatment by membrane surface modification via polymerizable bicontinuous microemulsion””, *J. Membrane Science* **482**, 103-114 (2015).
- P. Kaner ; DJ. Johnson; E. Seker; N. Hilal; **S. Alsoy Altinkaya**; “Layer-by-layer surface modification of polyethersulfone membranes using polyelectrolytes and AgCl/TiO<sub>2</sub> xerogels” *J. Membrane Science* **493**, 807-819 (2015)
- Deowan, SA; F. Galiano; J. Hoinkis; D. Johnson; **S. Alsoy Altinkaya**; B. Gabriele; N. Hilal; E. Drioli; A. Figoli, “Novel low-fouling membrane bioreactor (MBR) for industrial wastewater treatment” *J. Membrane Science* **510** , 524-532 (2016).
- Ozer, BBP; M. Uz; P. Oymaci; **S. Alsoy Altinkaya**; “Development of a novel strategy for controlled release of lysozyme from whey protein isolate based active food packaging films” *Food Hydrocolloids* **61**, 877-886 (2016).
- Oymaci, Pelin; **S. Alsoy Altinkaya**, “Improvement of barrier and mechanical properties of whey protein isolate based food packaging films by incorporation of zein nanoparticles as a novel bionanocomposite”, *Food Hydrocolloids* **54**, 1-9 (2016).
- Uz, Metin; V. Bulmus, Volga; **S. Alsoy Altinkaya**, “Effect of PEG Grafting Density and Hydrodynamic Volume on Gold Nanoparticle-Cell Interactions: An Investigation on Cell Cycle, Apoptosis, and DNA Damage” *Langmuir* **32** , 5997-6009 (2016)
- Uz, M.; M. Büyüköz; A.D. Sharma; D.S. Sakaguchi, **S. Alsoy Altinkaya**, S.K Mallapragada, “Gelatin-based 3D conduits for transdifferentiation of mesenchymal stem cells into Schwann cell-like phenotypes”, *Acta Biomaterialia* **53**, 293-306 (2017).
- Uz, Metin; **S. Alsoy Altinkaya**, S.K. Mallapragada. “Stimuli responsive polymer-based strategies for polynucleotide delivery” *Journal of Materials Research* **32**, 2930-2953 (2017).
- Büyüköz M.; E. Erdal; **S. Alsoy Altinkaya**. “Nanofibrous gelatin scaffolds integrated with NGF-loaded alginate microspheres for brain tissue engineering”, *Journal of Tissue Engineering and Regenerative Medicine* **12** , E707-E719 (2018).

- Zielinski, J.M.; **S. Alsoy Altinkaya**. “The effect of mass transfer resistance and nonuniform initial solvent concentration on permeation through polymer membranes” *Journal of Applied Polymer Science* **135**, Article Number: 46126 (2018) .
- Cihanoglu A., **S. Alsoy Altinkaya**. “ A facile approach for preparation of positively charged nanofiltration membranes by in-situ crosslinking between polyamide-imide and polyethylenimine”. *Separation and Purification Technology* **20**, 353-362 (2018).
- Tekinalp Ö., **S. Alsoy Altinkaya**. “Development of high flux nanofiltration membranes through single bilayer polyethyleneimine/alginate deposition”. *Journal of Colloid and Interface Science* **537** 215-227 (2019).
- Keskin, S., **Altinkaya, S.A.**, A Review on Computational Modeling Tools for MOF-Based Mixed Matrix Membranes, *Computation*, 7 (2019) 1-26
- Bar, C., Caglar, N., Uz, M., Mallapragada, SK., **Altinkaya, S.A.**, Development of a High-Flux Thin-Film Composite Nanofiltration Membrane with Sub-Nanometer Selectivity Using a pH and Temperature-Responsive Pentablock Co-Polymer, *ACS Applied Materials & Interfaces*, 11 (2019) 31367-31377.
- Cihanoglu A., **Altinkaya, S.A.**, A facile route to the preparation of antibacterial polysulfone-sulfonated polyethersulfone ultrafiltration membranes using a cationic surfactant cetyltrimethylammoniumbromide, *Journal of Membrane Science* 594 (2020) 117438. <https://doi.org/10.1016/j.memsci.2019.117438>.

#### **PUBLICATIONS IN PROCEEDINGS OF INTERNATIONAL CONFERENCES**

- **Alsoy, S.** and J.L. Duda, “Modeling of the Drying of Multicomponent Polymer Films”, PPS-13, 13<sup>th</sup> International Meeting, Secaucus, NJ, USA, 9-G1-9G2, The Polymer Processing Society, 1997.
- **Alsoy, S.** and J.L. Duda, “Modeling of Multilayer Drying of Polymer Films”, 9<sup>th</sup> International Coating Science and Technology Symposium, Newark, Delaware, USA, 339-342, International Society of Coating Science and Technology, 1998.
- **Alsoy, S.** and J.L. Duda, "A Physical Model For Drying of Multicomponent Polymer Films", The 35<sup>th</sup> Annual Conference and the Tri-National American-Turkish-Israeli Conference, Haifa, Israel, 31 -33, Israel Institute of Chemical Engineers, 1999.
- **Alsoy, S.**, "Modeling of Multicomponent Polymer Drying Processes in Multiple Zone Industrial Dryers", Proceedings ECS'99 3<sup>rd</sup> European Coating Symposium , Advances in

Coating and Drying of Thin Films, Nürnberg, 393-398, Shaker Verlag, Aachen, Germany, 1999.

- **Alsoy, S.** and J. L.Duda, "A Novel Approach To Predict Multicomponent Diffusion", Eastern Mediterranean Chemical Engineering Conference, Ankara , 333-334, Middle East Technical University, 2001.
- Özbaş, B., H. Yenil and **S. Alsoy**, "Preparation of Cellulose Acetate Films By Dry Casting Method and Investigation of Properties", 2<sup>nd</sup> International Packaging Congress and Exhibition, İzmir, 261-267, Kimya Mühendisleri Odası Ege Bölge Şubesi, 2001.
- **Alsoy, S.** and B. Özbaş, "Modeling of Asymmetric Membrane Formation By Dry- Casting Method", 2001 Prague Meetings on Macromolecules, 41<sup>st</sup> Microsymposium Polymer Membranes, Prague, SL7, International Union of Pure and Applied Chemistry, Czech Chemical Society, 2001.
- **Altinkaya Alsoy, S.,** H. Yenil and S. Akkurt, " Asymmetric Membrane Tablet Coatings For Controlled Release of Drugs", Third Chemical Engineering Conference For Collaborative Research in Eastern Mediterranean, Thessaloniki, Greece, 2003.
- **Altinkaya Alsoy, S.** and H. Yenil, "Controlled Release of Drugs from Asymmetric Membrane Tablet Coatings: Prediction of Phase Inversion Dynamics", International Symposium on Polymer Conetworks Gels and Membranes –Science, Technology and Applications- Budapest, Hungary, September, 2005.
- Yürekli, Y. and **S. Alsoy Altinkaya**, "Predicting Emission Characteristics of Volatile Organic Compounds from Surface Coatings", The 4th Eastern Mediterranean Chemical Engineering Conference (EMCC4) Dead Sea, Israel , January 2006.
- **Altinkaya Alsoy, S.,** "Modeling of Asymmetric Membrane Formation By a Combination of Dry/Wet Phase Inversion Processes", Euromembrane 2006, Giardini Naxos-Taormina, Italy, September 2006.
- Arslan, M.Ö., **S. Alsoy Altinkaya.** "Measurement of Diffusivity of Water in Polysulfone", 31 st International Vacuum Microbalance Techniques Conference, September 12-14, 2007, İzmir.
- Yurekli, Y., **S. Alsoy Altinkaya.** "Sorption and Diffusion Behaviors of Butylacrylate in Rubbery Methylmethacrylate-Bulylacrylate Copolymer. 31 st International Vacuum Microbalance Techniques Conference, September 12-14, 2007, İzmir.
- Abaci, H.E., **S. Alsoy Altinkaya.** "Modeling of Hemodialysis Operation", 5<sup>th</sup> Chemical Engineering Conference for Collaborative Research in Eastern Mediterranean Countries- EMCC5, May 24-29, 2008, Italy.

- Abaci, H.E., **S. Alsoy Altinkaya**. “Modeling the Influence of Urease Immobilization on the Performance of Hemodialysis Membranes”, Euromembrane 2009, Montpellier, France, September 2009.
- Mahlicli, F.Y., **S. Alsoy Altinkaya**. The Influences of the Layer by Layer Deposition of Polyethylenimine and Alginate on the Transport Rates and Hemocompatibility of PSf Membranes”, Euromembrane 2009, Montpellier, France, September 2009.
- Yurekli, Y., S. Guedidi, **S. Alsoy Altinkaya**, A. Yemenicioğlu, C. Innocent, A. Deratani, S. Roudesli. “Preparation and Characterization of Urease Immobilized Ultrafiltration Membranes”, Euromembrane 2009, Montpellier, France, September 2009.
- Yurekli, Y., S. Guedidi, **S. Alsoy Altinkaya**, A. Yemenicioğlu, C. Innocent, A. Deratani, S. Roudesli. “Modeling the Performance of Urease Immobilized Membranes”, Euromembrane 2009, Montpellier, France, September 2009.
- Guedidi, S. A. Deratani, C. Innocent, P. Derjardin, S. Roudesli, Y. Yurekli, **S. Alsoy, Altinkaya**. “Enzymatic membranes prepared by using polyelectrolyte multilayer immobilization. Role of the enzyme location on the catalytic reaction”, Euromembrane 2009, Montpellier, France, September 2009.
- Uz, M., **S. A. Altinkaya**. “Preparation and Characterization of Potassium Sorbate Incorporated Cellulose Acetate Films for Antimicrobial Food Packaging Applications”, 6<sup>th</sup> Chemical Engineering Conference for Collaborative Research in Eastern Mediterranean Countries- EMCC6, March 2010, Antalya, Turkey.
- Mahlicli, F.Y., **S. A. Altinkaya**. “The Effects of Urease Immobilization on the Transport Characteristics and Protein Adsorption Capacity of Cellulose Acetate Based Hemodialysis Membranes”. 6<sup>th</sup> Chemical Engineering Conference for Collaborative Research in Eastern Mediterranean Countries- EMCC6, March 2010, Antalya, Turkey.
- Yurekli, Y., F.Y. Mahlicli, **S. A. Altinkaya**. “The Effect of Solution pH on the Separation of Similar-Sized Proteins Through Polyacrylonitrile (PAN) and Polyelectrolyte Deposited PAN Membranes”. 6<sup>th</sup> Chemical Engineering Conference for Collaborative Research in Eastern Mediterranean Countries- EMCC6, March 2010, Antalya, Turkey.
- Peksen Ozer B.B., M. Uz, **S.A. Altinkaya**. “Preparation of Asymmetric Cellulose Acetate Membranes Containing Lysozyme Loaded Chitosan Nanoparticles To Control Release of Antimicrobial Agent For Food Packaging Applications”. International Congress on Membranes and Membrane Processes, ICOM2011, July 2011, Amsterdam, Netherlands.
- Uz M., F.Y. Mahlicli, M. Buyukoz, **S.A. Altinkaya**. “Asymmetric Cellulose Acetate Membranes Containing Chitosan Nanoparticles for Wound Healing”. International Congress



on Membranes and Membrane Processes, ICOM2011, July 2011, Amsterdam, Netherlands.

- Uz M., F.Y. Mahlicli, **S.A. Altinkaya**. “Preparation and Characterization of *Hypericum perforatum* Incorporated Cellulose Acetate Membranes Intended For Wound Dressing Applications”. International Congress on Membranes and Membrane Processes, ICOM2011, July 2011, Amsterdam, Netherlands.
- Peksen Ozer B.B., **S.A. Altinkaya**. “Preparation of Lysozyme Loaded Chitosan Nanoparticles With Controlled Release Properties for Food Applications”. International Conference on Enzyme Science and Technology, ICEST2011, November 2011, Kuşadası, Turkey.
- Abaci H.E., **S. Alsoy Altinkaya**. “Modeling of Hemodialysis Operation”. 7<sup>th</sup> Chemical Engineering Conference for Collaborative Research in Eastern Mediterranean Countries- EMCC7, April 2012, Corfu, Greece.
- Uz M., Volga Bulmus, **S. Alsoy Altinkaya**. “Intracellular Trafficking of PEG Coated Gold Nanoparticles”. 7<sup>th</sup> Chemical Engineering Conference for Collaborative Research in Eastern Mediterranean Countries- EMCC7, April 2012, Corfu, Greece.
- Uz M., F.Y. Mahlicli, M. Polat, **S.A. Altinkaya**. “Characterization of Polysulfone Based Hemodialysis Membranes by AFM”. Euromembrane 2012, September 2012, London, United Kingdom.
- Mahlicli, F.Y., **S.A. Altinkaya**. “Immobilization of Alpha Lipoic Acid onto Polysulfone Membranes To Suppress Hemodialysis Induced Oxidative Stress”. Euromembrane 2012, September 2012, London, United Kingdom.
- Büyüköz, **M.**, E. Erdal, **S. Alsoy Altinkaya** “Nano-Fibrous and Oriented Gelatin Scaffolds For Nerve Tissue Engineering”. World Conference on Regenerative Medicine, October 2013, Leipzig, Germany.
- Uz, M., M. Tuncer, E. Seker, **S. Alsoy Altinkaya**. “Preparation and Characterization of Ag/ZnO/SiO<sub>2</sub> Incorporated Polysulfone Membranes for Water Treatment”. NANOMEMWATER International Conference on Nanotechnology Application in Membranes for Water Treatment, October 2013, İzmir, Turkey.
- Mahlicli, F.Y., G.Kıbrıslı, E. Ayaz, E. Şeker, **S. Alsoy Altinkaya**. “Preparation Of Antibacterial Polyacrylonitrile Based Ultrafiltration Membranes For Waste Water Treatment”. NANOMEMWATER International Conference on Nanotechnology Application in Membranes for Water Treatment, October 2013, İzmir, Turkey.
- Kaner, P., D. Johnson, E. Şeker, N. Hilal, **S. Alsoy Altinkaya**. “Layer-By-Layer Surface Modification of Poly(ether sulfone) Membranes Using AgCl/TiO<sub>2</sub> Containing

Polyelectrolytes". International Congress on Membranes and Membrane Processes, ICOM2014, July 2014, Shuzo, China.

- Mahlicli F.Y., Y. Şen, M. Mutlu, **S. Alsoy Altinkaya**. "Immobilization of Superoxide Dismutase/Catalase onto Polysulfone Membranes to Suppress Hemodialysis-Induced Oxidative Stress: A Comparison of Two Immobilization Methods", Euromembrane 2015, September 2015, Aachen, Germany.
- Büyüköz, **M.**, E. Erdal, **S. Alsoy Altinkaya**. "Fabrication and Characterization of Nanofibrous Gelatin Scaffolds by Thermally Induced Phase Separation Technique for Nerve Tissue Engineering Applications" Euromembrane 2015, September 2015, Aachen, Germany.
- Uz M., M. Buyukoz, A.D. Sharma, D.S. Sakaguchi, **S. Alsoy Altinkaya**, S.K. Mallapragada "3D Gelatin Conduits for Differentiation of Mesenchymal Stem Cells into Schwann Cell-like Phenotypes", BMES2016 Biomedical Engineering Society Annual Meeting, 5-8 Ekim 2016, Minneapolis, USA.
- Cihanoğlu A. **S. Alsoy Altinkaya**. "Development of Polyamide-imide Based Positively Charged Nanofiltration Membranes", International Congress on Membranes and Membrane Processes, ICOM2017, July 2017, San Francisco, USA.
- Tekinalp, Ö., **S. Alsoy Altinkaya**. "Preparation of Nanofiltration Membranes via Alternating Polyelectrolyte Deposition with Limited Number of Layers on PSF/SPES Based Porous Support Membranes" International Congress on Membranes and Membrane Processes, ICOM2017, July 2017, San Francisco, USA.
- Bar, C., Metin Uz, Nagehan Çağlar, Surya .K. Mallapragada, **S. Alsoy Altinkaya**. "Development of a new pH and temperature responsive poly(N,N-(diethylamino)ethyl methacrylate) and pluronic F127 based thin film composite nanofiltration membrane". International Congress on Membranes and Membrane Processes, ICOM2017, July 2017, San Francisco, USA.
- Bar, C., Metin Uz, Surya .K. Mallapragada, **S. Alsoy Altinkaya**. "Adsorption Kinetics of pH and Temperature Responsive Poly(N,N-(diethylamino)ethyl methacrylate)/Pluronic F127 Pentablock Copolymer on Polysulfone/Sulfonated polyethersulfone porous support membranes". International Congress on Membranes and Membrane Processes, ICOM2017, July 2017, San Francisco, USA.
- Cihanoğlu A., **S. Alsoy Altinkaya**. The Influence of Solvent Type on the Fouling Behaviour of PSf/SPES Blend Ultrafiltration Membranes During Filtration of Oil Water Emulsion. Euromembrane 2018, July 2018, Valencia, Spain.

- Cihanoğlu A., **S. Alsoy Altinkaya**. One step surface modification of membranes with quaternary ammonium cations for improving antibacterial activity. Euromembrane 2018, July 2018, Valencia, Spain.
- Çağlar N., M. Uz, S.K. Mallapragada, **S. Alsoy Altinkaya**. “Preparation and Characterization of Antifouling Nanofiltration Membrane from a Responsive Block Copolymer”. Euromembrane 2018, July 2018, Valencia, Spain.
- Zielinski, J.M., **S. Alsoy Altinkaya**. “The Effect of Mass Transfer Resistance and Non-Uniform Initial Solvent Concentration on Permeation Through Polymer Membranes”. Euromembrane 2018, July 2018, Valencia, Spain.
- Zielinski, J.M., **S. Alsoy Altinkaya**, A.R. Garcia “Examination of the Payne Cell Method for the Evaluation of Permeation, Diffusion, and Solubility Coefficients”. AICHE Annual Symposium, Pittsburgh, 2018.

#### **PRESENTATIONS AT INTERNATIONAL CONFERENCES**

- Ülkü, S. and **S. Alsoy**, “Natural Zeolites in Water Treatment”, AICHE Annual Symposium, San Francisco, California, 1994.
- Duda, J.L. and **S. Alsoy**, “The Role of Diffusion Induced Convection and Relaxation in Supercritical Devolatilization of Polymers”, AICHE Annual Symposium, Chicago, Illinois, 1996.
- **Alsoy, S.** and J.L. Duda, “Drying of Solvent Coated Polymer Films”, AICHE Annual Symposium, Chicago, Illinois, 1996.
- **Alsoy, S.** and J.L. Duda, “Modeling of the Drying of Multicomponent Polymer Films”, AICHE Annual Symposium, Los Angeles, California, 1997.
- **Alsoy, S.** and J.L. Duda, “Modeling of Multilayer Drying of Polymer Films”, AICHE Annual Symposium, Miami, Florida, 1998.
- Zielinski, J.M. and **S. Alsoy**, "Onsager Consistency Checks For Multicomponent Diffusion Models", AICHE Annual Symposium, Dallas, Texas, 1999.
- **Alsoy, S.** and J.L. Duda, “Predicting drying in solvent-coated polymeric films”, American Chemical Society, San Francisco, CA, 2000.
- Wong S-S., **S. Alsoy Altinkaya** and S.K. Mallapragada, “Experimental and Theoretical Investigation of Multicomponent Solvent Removal from Semicrystalline Polymers”. AICHE Annual Symposium, Cincinnati, Ohio, 2005.

#### **PRESENTATIONS AT SUMMER SCHOOLS**

- **Alsoy, S.**, and J.L. Duda, “Modeling of Drying of Binary Polymer Solutions”, NATO Summer School, Antalya, 1995.

## OTHER PUBLICATIONS

### Patent

- Duda, J.L., **S. Alsoy**, "Short Cycle Removal of Impurities From Polymers," US Patent No. 5,917,011 (1999) .

### Book Section

- **S. Alsoy Altinkaya**, “Controlled Release of Drugs From Tablet Coatings”, in Pharmaceutical Manufacturing Handbook edited by Shayne Gad John Wiley and Sons, Inc.
- **S. Alsoy Altinkaya**, “Release of Antimicrobial Agent” in Encyclopedia of Membranes edited by Enrico Drioli and Lidiette Giorno, Springer.
- **S. Alsoy Altinkaya** “Controlled Drug Release” in Encyclopedia of Membranes edited by Enrico Drioli and Lidiette Giorno, Springer.
- **S. Alsoy Altinkaya** “Controlled Release Kinetics” in Encyclopedia of Membranes edited by Enrico Drioli and Lidiette Giorno, Springer.
- **S. Alsoy Altinkaya** “Urease Immobilization On Membranes” in Encyclopedia of Membranes edited by Enrico Drioli and Lidiette Giorno, Springer.
- **S. Alsoy Altinkaya** “Controlled Release Dose” in Encyclopedia of Membranes edited by Enrico Drioli and Lidiette Giorno, Springer.
- **S. Alsoy Altinkaya** “Controlled Release By Membrane” in Encyclopedia of Membranes edited by Enrico Drioli and Lidiette Giorno, Springer.
- **S. Alsoy Altinkaya** “Controlled Delivery” in Encyclopedia of Membranes edited by Enrico Drioli and Lidiette Giorno, Springer.
- **S. Alsoy Altinkaya** “Controlled Release” in Encyclopedia of Membranes edited by Enrico Drioli and Lidiette Giorno, Springer.
- Alberto Figoli, Jan Hoinkis, **Sacide Alsoy Altinkaya**, Jochen Bundsch. “Application of Nanotechnology in Membranes for Water Treatment”. 2017 CRC Press Taylor Francis Group, London, UK. ISBN:978-1-138-89658-1 (Hbk) , ISBN:978-1-315-17907-0 (eBook)

## INTERNATIONAL PROJECTS

- Multicomponent Drying of Semicrystalline Polymer Films, Funding Agency : National Science Foundation , **USA** Project Number : CTS-0107168 Collaborators: Associate Prof. Surya Mallapragada, Iowa State University, USA and Prof. Joseph Miltz, Technion, Israel Institute of Technology, **Israel**.
- Preparation and characterization of enzyme immobilized membranes. Modelling of the performances, Project Number: Programme for Integrated Actions (PIA) “BOSPHORUS” 105325 Funding Agency: The Scientific and Technical Research Council of **Turkey** (TÜBİTAK) and The Ministry of Foreign Affairs of the Republic of **France**.
- Development of Next Generation Bioreactor System, Project Number: 246039, Funding Agency: European Union 7<sup>th</sup> Framework Programme ( 11 partners from 8 different countries involved in the project).

## NATIONAL PROJECTS

- Gravimetric Measurement of Transport Properties of Polymers. Project Number: MİSAG144, Funding Agency: TÜBİTAK (National Science Foundation of Turkey)
- Development of Asymmetric Membrane Coated Controlled Release Systems, Project Number: 2002 İYTE 16, Funding Agency: İzmir Institute of Technology
- Preparation and Characterization of Hemodialysis Membranes, Project Number: 2005 İYTE 32 , Funding Agency: İzmir Institute of Technology
- Preparation and Characterization of Antimicrobial Food Packaging Materials, Project Number: 2006 İYTE 26, Funding Agency: İzmir Institute of Technology
- Preparation and Characterization of Enzyme Immobilized Polymeric Membranes and Measurement of Their Kinetic Performances, Project Number: 2007 İYTE05, Funding Agency: İzmir Institute of Technology
- Improvement of Biocompatibility of Polysulfone Based Hemodialysis Membranes with Alginate Addition, Project Number: 2008İYTE03, Funding Agency: İzmir Institute of Technology
- Preparation and Characterization of Polysulfone Based Ultrafiltration Membranes For Separating Proteins, Project Number: 2009İYTE01, Funding Agency: İzmir Institute of Technology
- Development of Polysulfone Based Hemodialysis Membranes with Improved Biocompatibility and Transport Properties, Project Number: 2010İYTE03, Funding Agency: İzmir Institute of Technology
- Preparation and Characterization of Nanoparticles for Gene Delivery Applications, Project Number: 2011İYTE10, Funding Agency: İzmir Institute of Technology
- Preparation and Characterization of Gelatin Based Scaffolds Integrated with Growth Factor Loaded Microspheres, Project Number: 2012-İYTE-16, Funding Agency: İzmir Institute of Technology and Project Number: 112M568, Funding Agency: TÜBİTAK (National Science Foundation of Turkey)
- Development Of Edible Antimicrobial Films By Using Lactic Acid Bacteria, Lysozyme And Lactoperoxidase, Application Of These Films To Plastic Packaging Materials And Selected Foods, Project Number: MAG 104 M 386, Funding Agency: TÜBİTAK (National Science Foundation of Turkey)
- Development of Antimicrobial Nanocomposite Food Packaging Materials with Controlled Release Properties, Project Number: 110M440, Funding Agency: TÜBİTAK (National Science Foundation of Turkey)

- Development of a New Pentablock Copolymer Based Thin Film Composite Nanofiltration Membrane, Project Number: 115M464, Funding Agency: TÜBİTAK (National Science Foundation of Turkey)

## **PROFESSIONAL DEVELOPMENT**

- Advisor of 4 PhD thesis (completed).
- Advisor of 14 master thesis (completed)
- Project Reviewer appointed by Technology Development Foundation of Turkey
- Project Reviewer appointed by National Science Foundation of TURKEY
- Reviewer for publications in  
Environmental Science and Technology  
Journal of Polymer Science:Part B: Polymer Physics  
Journal of Applied Physics Applied Physics Letters  
Journal of Membrane Science  
EXPRESS Polymer Letters  
Fluid Phase Equilibria  
Macromolecular Reaction Engineering  
Journal of Applied Polymer Science  
AIChE Journal  
Desalination  
Industrial & Engineering Chemistry Research  
Chemical Engineering Journal  
Journal of Food Engineering  
Food Science and Technology  
Polymer  
Chemical Engineering Research and Design  
Carbohydrate Polymers  
Cellulose  
Progress in Organic Coatings  
Chemical Engineering Research and Design  
Separation and Purification Technology  
Journal of Material Science  
ACS Applied Materials and Interfaces