

First Names, Surname: Mustafa Muammer, DEMIR
Date of Birth: 30.12.1975
URL: <http://demirlab.iyte.edu.tr/>



Academic

- **June, 2014-** Izmir Institute of Technology
Faculty of Engineering, Department of Material Science and Engineering - **Prof.Dr. (Chairman)**
- **February, 2013-** Izmir Institute of Technology
Faculty of Engineering, Department of Material Science and Engineering - **Assoc.Prof.Dr. (Chairman)**
- **December, 2008-** Izmir Institute of Technology
Faculty of Science, Department of Chemistry - **Assoc.Prof.Dr.**
- **April, 2007-** Izmir Institute of Technology
Faculty of Science, Department of Chemistry - **Assist.Prof.Dr.**
- **February, 2007-** Max-Planck Institute for Polymer Research, GERMANY, **Post. Doc.**
- **May, 2004-** Sabanci University, TURKEY
Material Science and Engineering – **Ph.D.**
- **June, 2001-** Sabanci University, TURKEY
Material Science and Engineering – **MSc.**
- **June, 1999-** Bogaziçi University, TURKEY
Chemistry – **BSc.**

Awards

- 3rd Istanbul International Inventions Fair 2018 for a Patent - Gold Medal
- Fevzi Akkaya Foundation “Outstanding Young Scientist” Award (FABED) 2014
- Scientist Award, 2013 from International Association of Advanced Materials
- Turkish Academy of Science “Outstanding Young Investigator” Award (TÜBA GEBİP) 2013
- The patent encoded with TR 2009/07107 was awarded as the best patent of 2009 by TPE

Year-based article award of Izmir Institute of Technology (2012, 2014, 2016, 2017)

Grants

- **“Career Development Program”** by The Scientific and Technical Research Council of Turkey encoded with 107T795 (2008). “Fabrication and optical characterization of uniaxially – oriented light emitting polymeric fibers via electrospinning”-**Completed**
- **“Research Project Grant”** by The Scientific and Technical Research Council of Turkey encoded with 109T905 (2009). “Fabrication of transparent composites with high refractive index containing invisible nanoparticles” -**Completed**
- **“Research Project Grant”** by The Scientific and Technical Research Council of Turkey encoded with 114Z292 (2014). “Fabrication of triboluminescent polymeric films and fibers and their applications” -**Completed**
- **“Research Project Grant”** by The Scientific and Technical Research Council of Turkey encoded with 114Z940 (2015). “Synthesing of artificial Metal (Fe,Mg) silicate deposits under high pressure and temperature conditions and development of polymeric inhibitor for metal silicate scaling” -**Completed**

- **“Research Project Grant”** by The Scientific and Technical Research Council of Turkey encoded with 117Z331 (2017). “Pressure Sensors based on Inorganic Colloidal Systems “-In progress.

Publications (Total Citations >2800 by Google Scholar by Nov 2018)

73. S. K. Shukla, C. S. Kushwaha, T. Guner, M. M. Demir ‘Chemically modified optical fibers in advanced technology: An overview’ *Optics and Laser Technology* (accepted)
72. T. Isık, M. M. Demir ‘Tailored electrospun fibers from waste polystyrene for high oil adsorption’ *Sustainable Materials and Technologies* 17, e00084 (2018).
71. B. Satilmis, T. Isık, M. M. Demir, T. Uyar ‘Amidoxime functionalized Polymers of Intrinsic Microporosity (PIM-1) electrospun ultrafine fibers for rapid removal of uranyl ions from water’ *Applied Surface Science* 467-468, 648-657 (2019).
70. G. Topçu, A. Çelik, A. Kandemir, A. Baba, H. Şahin, M. M. Demir ‘Increasing Solubility of Metal Silicates by Mixed Polymeric Antiscalants’ *Geothermics*, 77, 106-114 (2019).
69. T. Guner, E. Aksoy, M. M. Demir, C. Varlikli ‘Perylene-embedded electrospun PS fibers for white light generation’ *Dyes and Pigments*, 160, 501-508 (2019).
68. O. Acar, S. Varis, T. Isık, S. Tirkeş, M. M. Demir ‘Synthesis and characterization of novel high temperature structural adhesives based on nadic end capped MDA-BTDA-ODA copolyimide’ *Materials Research Express*, 5, 105305 (2018).
67. M. U. Mutlu, O. Akın, M. M. Demir, Ü. H. Yıldız ‘Fabrication of Polymer Nanofiber-Conducting Polymer Fabric and Noncontact Motion Sensing Platform’ *Materials Science Forum* 915, 207-212 (2018)
66. T. Isık, M. M. Demir ‘Medical Waste Treatment via Waste Electrospinning’ *Fibers and Polymers* 19 (4), 767-774 (2018)
65. T. Güner, B. Akbalı, M. Özcan, G. Topcu, M. M. Demir, H. Şahin ‘Monitoring the Doping and Diffusion Characteristics of Mn Dopants in CesiumLead Halide Perovskites’ *The Journal of Physical Chemistry C* 122 (21), 11543-11549 (2018)
64. M. Demirkurt, Y. A. Olcer, M. M. Demir, A. E. Eroğlu ‘Electrospun polystyrene fibers knitted around imprinted acrylate microspheres as sorbent for paraben derivatives’ *Analytica Chimica Acta* 1014, 1-9 (2018)
63. T. Güner, M. M. Demir ‘A Review on Halide Perovskites as Color Conversion Layers in White Light Emitting Diode Applications’ *Physica Status Solidi (a)* 1800120 (2018)
62. A. Çelik, G. Topçu, T. Isık, A. Baba, N. Horzum, M. M. Demir ‘Investigation of Lithium Sorption Efficiency Using SWCNT Functionalized Electrospun Fiber Mats from the Hypersaline Geothermal Brine’ *Materials Science Forum* 915, 121-126 (2018).
61. B. Akbalı, G. Topçu, T. Güner, M. Özcan, M. M. Demir, H. Şahin ‘CsPbBr₃ perovskites: Theoretical and experimental investigation on water-assisted transition from nanowire formation to degradation’ *Physical Review Materials* 2 (3), 034601 (2018).
60. G. Topçu, T. Güner, M. M. Demir ‘Non-iridescent structural colors from uniform-sized SiO₂ colloids’ *Photonics and Nanostructures-Fundamentals and Applications* 29, 22-29 (2018).
59. T. Güner, G. Topçu, U. Savacı, A. Genç, S. Turan, E. Sarı, M. M. Demir ‘Polarized Emission from CsPbBr₃ Nanowires Embedded-Electrospun PU fibers’ *Nanotechnology* 29, 135202 (2018).
58. A. İncel, M. M. Demir ‘Triboluminescent composite microspheres consisting of alginate and EuD₄TEA crystals’ *Sensors and Actuators A: Physical* 269, 556-562 (2018)
57. T. Güner, U. Şentürk, M. M. Demir ‘Optical Enhancement of Phosphor-converted wLEDs using Glass Beads’ *Optical Materials* 72, 769-774 (2017).
56. G. Topçu, A. Çelik, A. Baba, M. M. Demir ‘Design of polymeric antiscalants based on functional vinyl monomers for (Fe, Mg) silicates’ *ACS Energy & Fuels* 31, 8489–8496 (2017).
55. Y. A. Olcer, M. Demirkurt, M. M. Demir, A. E. Eroglu ‘Development of molecularly imprinted polymers (MIPs) as a solid phase extraction (SPE) sorbent for the determination of ibuprofen in water’ *RSC Advances* 7, 31441 (2017).

54. A. İncel, O. Akın, A. Çağır, M. M. Demir, Ü. H. Yıldız 'Smart Phone Assisted Detection and Quantification of Cyanide in Drinking Water by Paper Based Sensing Platform' *Sensors & Actuators: B. Chemical* 252, 886-893 (2017).
53. A. İncel, C. Varlıklı, C. D. McMillen, M. M. Demir 'Triboluminescent Electrospun Mats with Blue-green Emission under Mechanical Force' *The Journal of Physical Chemistry Part C* 121(21), 11709-11716 (2017).
52. A. Çelik, G. Topçu, A. Baba, Y. Akdoğan, U. Şentürk, M. M. Demir 'Experimental modeling of silicate-based geothermal deposits' *Geothermics* 69, 65-73 (2017).
51. T. Isık, M. M. Demir, C. Aydoğan, M. Çiftçi, Y. Yağcı 'Hydrophobic Coatings from Photochemically-Prepared Hydrophilic Polymethacrylates via Electrospinning' *Journal of Polymer Science A: Polymer Chemistry* (2017).
50. A. Çelik, G. Koç, E. Erdoğan, T. Shahwan, A. Baba, M. M. Demir 'Use of Electrospun Fiber Mats for the Remediation of Hypersaline Geothermal Brine' *Desalination and Water Treatment* (2017).
49. A. İncel, M. E. Eanes, C. D. McMillen, M. M. Demir 'Integration of Triboluminescent EuD4TEA Crystals to Transparent Polymers: Impact sensor application' *ACS Applied Materials and Interfaces* 9 (7), 6488-6496 (2017).
48. S.K. Shukla, M. M. Demir, P.P. Govender, A. Tiwari, S.K. Shukla 'Optical fibre based non-enzymatic glucose sensing over Cu²⁺-doped polyaniline hybrid matrix' *Sensors and Actuators: B. Chemical* 242, 522-528 (2017).
47. A. İncel, S. M. Reddy, M. M. Demir 'A new method to extend the stress response of triboluminescent crystals by using hydrogels' *Materials Letters* 186, 210-213 (2017).
46. T. Güner, D. Köseoğlu, M. M. Demir 'Multilayer Design of Hybrid Phosphor Film for Application in LEDs' *Optical Materials* 60, 422-430 (2016).
45. G. Aşkın, V. Çeçen, S. S. Ünlütürk, S. Özçelik, M. M. Demir 'Enthalpy-driven selective loading of CdSe_{0.75}S_{0.25} nanoalloys in triblock copolymer polystyrene-b-polyisoprene-b-polystyrene' *Materials Today Communications* 8, 91-99 (2016).
44. N. Horzum, D. Mete, E. Karakus, M. Ucuncu, M. Emrullahoglu, M. M. Demir 'Rhodamine-Immobilised Electrospun Chitosan Nanofibrous Mat as a Fluorescence Turn-On Hg²⁺ Sensor' *ChemistrySelect* 1(5), 896-900 (2016).
43. E. Berber, N. Horzum, B. Hazer, M. M. Demir 'Solution electrospinning of polypropylene-based fibers and their application in catalysis' *Fibers and Polymers* 17(5), 760-768 (2016).
42. T. Isık, N. Horzum, U. H. Yıldız, B. Liedberg, M. M. Demir 'Utilization of Electrospun Polystyrene Membranes as a Preliminary Step for Rapid Diagnosis' *Macromolecular Materials and Engineering* 301(7), 827-835 (2016).
41. H. Başoğlu, M. D. Bilgin, M. M. Demir 'Biophysical Characterization of Protoporphyrin IX loaded Magnetoliposomes and In-Vitro Evaluation of Photodynamic Effects' *Photodiagnosis and Photodynamic Therapy* 13, 81-90 (2016).
40. A. İncel, T. Güner, O. Parlak, M. M. Demir 'Null-Extinction of CeO₂ @ silica Hybrid Particles: Transparent Polystyrene Composites' *ACS Applied Materials and Interfaces* 7(49), 27539-27546 (2015).
39. S. Tuzuner, M.M. Demir 'Dispersion of organophilic Ag nanoparticles in PS-PMMA blends' *Materials Chemistry and Physics* 162, 692-699 (2015).
38. B. Ghouil, A. Harabi, F. Bouzerara, N. Brihi, A. Guechi, B. Boudaira, M. M. Demir, Alberto Figoli 'Development and characterization of tubular composite ceramic membranes using natural alumino-silicates for microfiltration applications' *Materials Characterization* 103, 18-27 (2015).
37. N. Horzum, M. Mari, M. Wagner, M. M. Demir, K. Landfester, D. Crespy, R. Muñoz-Espí*, Controlled surface mineralization of metal oxides on nanofibers' *RSC Advances* 5(47), 37340-37345 (2015).
36. A. Baba, M. M. Demir, G. A. Koç, C. Tuğcu 'Hydrogeological properties of hyper-saline geothermal brine and application of inhibiting siliceous scale via pH modification' *Geothermics* 53, 406-412 (2015).

- 35.** M. M. Demir, A. Taşdemirci, M. Güden, K. Turan 'Mechanical Interlocking between Porous Electrospun Polystyrene Fibers and an Epoxy Matrix' *ACS Appl. Mater. Interface* 6(24), 21901-21905, (2014).
- 34.** N. Horzum, D. Taşcıoğlu, C. Özbek, S. Okur*, M. M. Demir* 'VOCs sensor based on metal oxide nanofibrous membrane/QCM system prepared by electrospinning' *New Journal of Chemistry* 38, 5761-5768 (2014).
- 33.** S. Acikgoz*, M. M. Demir, Ece Yapanan, Alper Kiraz, Ahmet A. Unal, M. Naci Inci 'Investigation of the Spontaneous Emission Rate of Perylene Dye Molecules Encapsulated into three-dimensional Nanofibers via FLIM Method' *Applied Physics A: Materials Science and Processing* 116 (4) 1867-1875 (2014).
- 32.** M. M. Demir, A. Baba*, V. Atilla, M. İnanlı ' Types of the scaling in hyper saline geothermal system in northwest Turkey ', *Geothermics* 50, 1-9 (2014).
- 31.** E. Boyacı, N. Horzum, A. Çağır, M. M. Demir* and Ahmet E. Eroğlu* 'Electrospun Amino-Functionalized PDMS as a Novel SPME Sorbent for the Speciation of Inorganic and Organometallic Arsenic Species' *RSC Advances*, 3, 22261 (2013).
- 30.** M. M. Demir*, N. Horzum, B. Özen, S. Özçelik 'Hierarchical co-assembly of a cyanine dye in poly(vinyl alcohol) fibrous films by electrospinning', *Journal of Physical Chemistry B*, 117, 10920 (2013).
- 29.** Ö. Tunusoğlu, M. M. Demir* 'Tailored CeO₂ nanoparticle surface in free radical bulk polymerization of methyl methacrylate', *Industrial & Engineering Chemistry Research*, 52 13401 (2013).
- 28.** N. Horzum, M. M. Demir*, Muath, T. Shahwan*,, "Chitosan Fiber - Supported Zero-Valent Iron Nanoparticles as a Novel Sorbent for Sequestration of Inorganic Arsenic", *RSC Advances*, 3, 7828, (2013).
- 27.** O. Parlak, M. M. Demir* "Anomalous transmittance of polystyrene/ceria nanocomposites at high particle loadings", *Journal of Materials Chemistry C*, 1, 290-298 (2013).
- 26.** N. Horzum, R. Munoz-Espi, G. Glasser, M. M. Demir, K. Landfester "Hierarchially structured metal oxide/silica nanofibers by colloidal electrospinning" *ACS Applied Materials & Interfaces*, 4 (11), 6338-6345 (2012).
- 25.** N. Horzum, O. Parlak, T. Shahwan, M. M. Demir* Synthesis of amidoximated polyacrylonitrile fibers and its application for sorption of aqueous uranyl ions under continuous flow", *Chemical Engineering Journal*, 213, 41-49 (2012).
- 24.** M. M. Demir*, G. Wegner ' Challenges in the preparation of optical polymer composites with nanosized pigment particles: A review on recent efforts', *Macromolecular Materials and Engineering*, 297, 838-863 (2012). **COVER ARTICLE**
- 23.** Ö. Tunusoğlu, R. Munoz-Espi, Ü. Akbey, M. M. Demir* ' Surfactant-Assisted Formation of Organophilic CeO₂ Nanoparticles', *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, 395, 10-17 (2012).
- 22.** O. Parlak, M. M. Demir* Towards Transparent Nanocomposites based on Polystyrene Matrix and PMMA-grafted CeO₂ Nanoparticles', *ACS Applied Materials & Interfaces*, 3, 4306-4314 (2011).
- 21.** N. Horzum, D. Taşcıoğlu, S. Okur, M. M. Demir* ' Humidity sensing properties of ZnO-based fibers by electrospinning', *Talanta*, 85, 1105-1111 (2011).
- 20.** Ö. Kepenekçi, M. Eanes-Emirdağ*, M. M. Demir* 'Effect of alkali metal hydroxides on the morphological development and optical properties of CeO₂ nanocubes under hydrothermal conditions', *Journal of Nanoscience and Nanotechnology*, 11, 3565-3577 (2011).
- 19.** N. Horzum, E. Boyacı, T. Shahwan, A. E. Eroğlu, M. M. Demir* ' Sorption Efficiency of Chitosan Nanofibers towards Metal Ions at Low Concentrations"', *Biomacromolecules*, 11(12) 3301-3308 (2010).
- 18.** M. M. Demir*, B. Altın, S. Özçelik 'Composites of reactive silica nanoparticles and poly(glycidyl methacrylate) with linear and crosslinked chains by in situ bulk polymerization' *Composite Interfaces*, 17(9), 814 (2010).
- 17.** M. M. Demir* 'Investigation on glassy skin formation of porous polystyrene fibers electrospun from DMF' *EXPRESS Polymer Letters*, 4(1), 2-8 (2010).

16. M. M. Demir*, B. Özen, S. Özçelik* 'Formation of Pseudoisocyanine J-Aggregates in Poly(vinyl alcohol) Fibers by Electrospinning' *J. Phys. Chem. B*, 113 (34), 11568-11573 (2009).
15. M. M. Demir*, D. Soyal, C. Ünlü, M. Kuş, S. Özçelik* 'Controlling Spontaneous Emission of CdSe Nanoparticles Dispersed in Electrospun Fibers of Polycarbonate Urethane' *J. Phys. Chem. C*, 113, 11273-11278 (2009).
14. S. Hess, M. M. Demir, V. Yakutkin, S. Balushev, G. Wegner*, 'Investigation of Oxygen Permeation through Composites of PMMA and Surface-Modified ZnO Nanoparticles' *Macromolecular Rapid Communications*, 30, 394-401 (2009).
13. S. Açıkgöz, B. Bilen, M. M. Demir, Y. Z. Menceloğlu, Y. Skarlatos, G. Aktaş and M. N. İnci*, 'Use of Polyethylene Glycol Coatings for Optical Fibre Humidity Sensing' *Optical Review*, 15(2), 84-90 (2008).
12. M. M. Demir*, G. Uğur, M. A. Gülgün, Y. Z. Menceloğlu, 'Glycidylmethacrylate-based Electrospun Mats and Catalytic Silver Nanoparticles' *Macromolecular Chemistry and Physics*, **209**, 508-515 (2008). **COVER ARTICLE**
11. G. Wegner*, M. M. Demir, M. Faatz, K. Gorna, R. Muñoz-Espí, B. Guillemet, F. Gröhn 'Polymers and inorganics: A happy marriage?' *Macromolecular Research*, **15**, 95-99, (2007).
10. M. M. Demir, P. Costignolles, Ü. Akbey, G. Wegner*, 'In- situ Bulk Polymerization of Dilute Particle/MMA Dispersions' *Macromolecules*, **40**(12), 4190-4198, (2007).
9. M. M. Demir, K. Koynov, Ü. Akbey, I. Lieberwirth, G. Wegner*, 'Optical Properties of Composites of PMMA and Surface-Modified Zincite Particles' *Macromolecules*, **40**, 1089-1100, (2007).
8. M. M. Demir*, Y.Z. Menciloglu, B. Erman, 'Aggregation of Fillers Blended into Random Elastomeric Networks. Theory and Comparison with Experiments' *Macromolecular Chemistry and Physics*, **207**, 1515-1524, (2006).
7. M. M. Demir, R. Munoz Espi, I. Lieberwirth, G. Wegner*, 'Precipitation of Monodisperse ZnO Nanocrystals via Acid-Catalyzed Esterification of Zinc Acetate' *Journal of Materials Chemistry*, **16**, 2940-2947, (2006).
6. M. M. Demir, M. Memesa, P. Costignolles, G. Wegner*, 'PMMA/ZnO Nanocomposites by in situ Bulk Polymerization' *Macromolecular Rapid Communications*, **27**, 763-770 (2006).
5. M. M. Demir, Y.Z. Menciloglu, B. Erman*, 'Effect of Filler Amount on Thermoelastic Properties of Poly(dimethylsiloxane) Networks' *Polymer*, 46(12), 4127-4134 (2005).
4. S. Ozcelik*, M.M. Demir, B. Birkan, 'Probing Nanoscale Domains of J-Aggregates Deposited on a Mica Surface' *J. Phys. Chem. B.*, **108**(15), 4679-4683 (2004).
3. M. M. Demir, M.A. Gulgun, Y.Z. Menciloglu, B. Erman*, S.S. Abramchuk, A.R. Khokhlov, V.G. Matveeva, M.G. Sulman, 'Palladium Nanoparticles by Electrospinning from Polyacrylonitrile-co-acrylic acid-PdCl₂ Solutions. Relations between Preparation Conditions, Particle Size and Catalytic Activity' *Macromolecules*, **37**(5), 1787-1792 (2004).
2. M. M. Demir, I. Yilgor, E. Yilgor and B. Erman*, 'Electrospinning of Polyurethane Fibers' *Polymer*, **43**(11), 3303-3309 (2002).
1. M. M. Demir and B. Erman*, 'Dimensions of Polystyrene Particles Deposited on Mica from Dilute Cyclohexane Solution at Different Temperatures' *Macromolecules*, **35**, 7986-7926 (2002).

Book Chapters

I. Doğan, M. M. Demir, A. Baba, 'Scaling Problem in Geothermal Systems of Turkey' In: Geothermal systems and energy resources of the Aegean Region, Eds: A. Baba, J. Bundschuh D. Chandrasekharam, CRC Press, Balkema, (2013).

T. Isık, N. Horzum, M. M. Demir 'A Recycling Route of Plastics via Electrospinning: from Daily Wastes to Functional Fibers' in DeGruyter Green Electrospinning Book, ISBN: 978-3-11-058139-3 (2019)

Book Editings

A. Tiwari, M. M. Demir, Eds., *Advanced Materials World Congress Abstract Book*, ISBN: 978-81-920068-3-16 (İzmir, 2013).

A. Tiwari, M. M. Demir, Eds., *Advanced Sensor and Detection Materials*, ISBN: 978-1-118-77348-2 Wiley: Scrivener Publishing (2013).

N. H. Polat, M.M. Demir, R. Muñoz-Espí, D. Crespy, Eds., *Green Electrospinning, in progress* DeGruyter.

A.G. Mamalis, Masato Enokizono, Antonios Kladas, T. Sawada, Mustafa Güden and Prof. Mustafa M. Demir, Eds., *Applied Electromagnetic Engineering for Advanced Materials from Macro-to Nanoscale under Static-to Shock Loading*, [Materials Science Forum](#) (Volume 915), (2018).

Other published documents

Mustafa M. Demir* 'AMWC 2013: Advanced Materials World Congress (İzmir, Turkey, September 16-19, 2013)' *Green Processing and Synthesis* 2(4), 2013, 365-365.

M. M. Demir, Elektrodokuma Lifler Üzerine Konumlandırılmış Yeni Nesil Metal Katalizörler, *Bilim Ütopya*, Haziran 2008, 44-47.

Patent:

M. M. Demir, M.A. Gülgün, Y.Z. Menciloğlu, 'Metal Coated Nano Fibers' WO 2005/021845 A1.

M. M. Demir, M.A. Gülgün, Y.Z. Menciloğlu, 'Metal kaplı lifler' 200907107 (2009)

T. Güner, U. Şentürk, M. M. Demir, Bir Fosfor Dönüşümlü Beyaz Led Paketi (Turkish Patent Institute, pending 2017)

Editorialship

Current Nanomaterials, Bentham Science.

American Journal of Materials & Applied Science

Peer Reviewing For Scientific Journals

2012-present Journal of the American Chemical Society

2012-present Materials Research Bulletin

2011-present Colloids and Surfaces A: Physicochemical and Engineering Aspect

2010-present Applied Surface Science

2009-present ACS Applied Materials & Interfaces

2008-present Macromolecules

2008-present Biomacromolecules

2008-present Applied Catalysis A

2008-present Nanotechnology

2008-present eXPRESS Polymer Letters

Supervised Ms and PhD Thesis :

2015-2017

* Aslı Çelik (MSc) - Synthesis of artificial metal (Fe,Mg) silicate deposits under high pressure and temperature conditions and development of polymeric inhibitor for metal silicate scaling

2014-2016

* Anıl İncel (MSc) - Integration of Red & Blue TL Materials to Different Polymer End-Use

2013-2015

* Tuğba Isık (MSc) – Circulating Nucleic Acid (CNA) Separation from Serum by Electrospun Membranes

2012-2014

* Şeyda Bağcı Tüzüner (MSc) – Selective Loading of Organophilic Ag Nanoparticles in PS/PMMA Blend

* Irmak Tunç (MSc)- Synthesis of silicate – based geothermal scales

2008-2013

* Nesrin Horzum Polat (PhD) – Filtration applications of electrospun fiber mats

* Özge Tunusoğlu (PhD) – The influence of CeO₂ nanoparticle surface chemistry on the mechanism of free radical polymerization of MMA

2009-2011

* Onur Parlak (MSc) – Fabrication of transparent polymer nanocomposites containing PMMA grafted CeO₂ particles

* Görkem Aşkın (MSc) – Preparation of electrospun composite fibers based on PS-PI-PS/CdxSe_{1-x} nanoparticles

2008-2010

* Bengisu Özen (MSc) – Investigation on emission features of TTBC aggregates in PVA fiber mats by electrospinning

Invited Talks

* Can a commodity polymer / pigment nanoparticle system be transparent ?

Max Planck Institute, Mainz; 7 May 2012, Prof. K. Landfester's invitation

* Electrospinning facility at IzTech

Singapore NanYang Technology University; 6 Feb 2014; Prof. B. Liedberg's invitation

* European Materials Research Society (E-MRS) 2017 Fall – Invited Speaker Symposium S – Materials - Nanoelectronics-Nanophotonics, Warsaw 18-21 Sep 2017.

* 6. Fiziksel Kimya Kongresi, Zonguldak, Mayıs 2017.

Organized Congress

*Chairman 'AMWC 2013: Advanced Materials World Congress (Turkey, September 16-19, 2013)

*Chairman 'JAPMED'10 2017: The Tenth Japanese-Mediterranean and Central European Workshop on Applied Electromagnetic Engineering for Magnetic, Superconducting, Multifunctional and Nano Materials (İzmir, Turkey, July 4-8, 2017)

Industry Collaborations (R&D Projects)

*2017, A New Material Approach to vacuum tubed Sun shine Collectors, TÜBİTAK Project No: 2150428, Company: Hitit

*2015, Remote Phosphor Application in Lightning Technology, TÜBİTAK Project No: 3150192
Company: Vestel

*2014-2015, Semiology translated into Voice, TÜBİTAK Project No: 7140252, Company: Turtela

*2011-2017 Hydrogeological and hydrochemical analysis of scaling in geothermal reservoirs,
Company: ENDA

*2001-2003, Fiber Optical Humidity Sensor, Company: Arçelik.

Courses Thought

[Chem 435 Introduction to Polymer Science](#)

[MSE 503 Materials Science and Engineering Thermodynamics](#)

[MSE 514 Molecular Aspects of Soft Matters](#)

[Chem 522 Nanoscience & Nanotechnology](#)

Chem 306 Physicochemistry

Chem 506 Advanced Physicochemistry

[Chem 121- General Chemistry](#)

High School Projects for TÜBİTAK and International Competitions (Dissemination)

2010-2011 - İzmir Türk College

2012 – Maltepe Military School

2014-2016 – Çakabey College

2017 – TAKEV and Çakabey College