

Semra Tan, Dr.



semra.tan@tubitak.gov.tr

Tel: 03122981293

Eğitim

- **Doktora:** Orta Doğu Teknik Üniversitesi (ODTÜ), Polimer Bilimi ve Teknolojisi Bölümü, 2008 (3.71/4.00)
- **Y. Lisans:** ODTÜ, Polimer Bilimi ve Teknolojisi Bölümü, 2003 (3.93/4.00)
- **Lisans:** ODTÜ, Kimya Bölümü, 2000 (2.94/4.00)
- **Yan Dal:** ODTÜ, Metalurji ve Malzeme Mühendisliği Bölümü, 2000 (3.33/4.00)

İlgi Alanları

Enerji depolama malzemeleri, Li-iyon piller, 3 boyutlu mikropiller, Ni-MH piller, ince ve esnek piller, polimer elektrolitler

İş Tecrübesi

Bilimsel Programlar Uzmanı

TÜBİTAK- SAVTAG, Ankara

Aralık 2016 -

Öğretim Görevlisi

ODTÜ Kuzey Kıbrıs Kampüsü, KKTC

Oc.2016-Haz.2016

Doktora Sonrası Araştırmacı

Metalurji ve Malzeme Mühendisliği Bölümü, ODTÜ, Ankara

Ek. 2014-Oc.2016

- Electrochemical testing of Ni-MH batteries based on core shell materials for hydrogen storage

Owner of a start-up company

Antalya

Nis.2013-Ağs.2014

- Development of thin and flexible alkaline batteries, *supported by Ministry of Science, Industry and Technology*

Doktora Sonrası Araştırmacı

Ångström İleri Pil Merkezi, Uppsala Üniversitesi, İsveç

Ey.2009 - Ey.2011

- Development of all solid state polymer electrolytes for both 3-D Li-ion microbatteries and Li-ion batteries with advanced cathode materials
- Co-supervisor of three graduate students (S. Walus, J. Du ve I. Liao) with Dr. Daniel Brandell

Kimya Bölümü, ODTÜ, Ankara

- Teaching in general, advanced and physical chemistry laboratories
- Conducting research on properties and characterization of aluminum hydroxide and barium sulfate filled polypropylene copolymer
- Conducting research on characterization of serpentine filled polypropylene

Makale Yayınları

- **“Activation behavior of an AB₂ type metal hydride alloy for NiMH batteries”**, [Semra Tan](#), Yang Shen, Ezgi Onur Şahin, Dag Noreus, Tayfur Öztürk, International Journal of Hydrogen Energy, 2016, 41(23), 9948.
- **“Solid polymer electrolyte coating from a bifunctional monomer for three-dimensional microbattery applications”**, Bing Sun, I-Ying Liao, [Semra Tan](#), Tim Bowden, Daniel Brandell, Journal of Power Sources, 2013, 238, 435.
- **“Solid state 3-D microbattery based on nano-pillar Cu₂Sb anodes”**, [Semra Tan](#), Emilie Perre, Torbjörn Gustafsson, Daniel Brandell, Solid State Ionics, 2012, 225, 510.
- **“A Study on Nanofiller Effects of Serpentine in Polypropylene Matrix”**, [Semra Tan](#), Teoman Tinçer, Journal of Applied Polymer Science, 2012, 124, 1419.
- **“3-D Microbattery Electrolytes by Self-Assembly of Oligomers”**, [Semra Tan](#), Sylwia Walus, Torbjörn Gustafsson, Daniel Brandell, Solid State Ionics, 2011, 198, 26.
- **“Preparation and Characterization of Polypropylene/Serpentine Composites”**, [Semra Tan](#), Teoman Tinçer, Journal of Applied Polymer Science, 2011, 121(2), 846.
- **“Flammability and Mechanical Properties of Al(OH)₃ and BaSO₄ Filled Polypropylene”**, [Semra Tan](#), Teoman Tinçer, Journal of Applied Polymer Science, 2010, 118(5), 3034.
- **“Poly(ether amine) and cross-linked poly(propylene oxide) diacrylate thin-film polymer electrolyte for 3D-microbatteries”**, [Semra Tan](#), Sylwia Walus, Jöns Hilborn, Torbjörn Gustafsson, Daniel Brandell, Electrochemistry Communications, 2010, 12(11), 1498.

Konferans Sunumları

- **“Activation of an AB₂ negative electrode material for Ni-MH battery”**, [Semra Tan](#), Yang Shen, Ezgi Şahin, Dag Noreus, Tayfur Öztürk, mESC-IS 2015, International Symposium on Materials for Energy Storage and Conversion, Ankara, Turkey 2015.
- **“Polymer Electrolytes for Li₂FeSiO₄-Based Li-ion Batteries”**, Bing Sun, [Semra Tan](#), Torbjörn Gustafsson, Daniel Brandell, International Conference on Solid State Ionics, Warsaw, Poland 2011.
- **“Synthesis of Comb-Polymethacrylate/Poly(ethylene oxide) Electrolytes for Li-ion Batteries”**, Juan Du, [Semra Tan](#), Tim Bowden, Daniel Brandell, International Conference on Solid State Ionics, Warsaw, Poland 2011.
- **“Cross-linked Oligomer-Based Electrolytes for 3D-Microbatteries”**, [Semra Tan](#), Tim Bowden, Torbjörn Gustafsson, Daniel Brandell, International Conference on Solid State Ionics, Warsaw, Poland 2011.
- **“Electrolytes for 3D-Microbatteries using Self-Assembly and Cross-Linking of Oligomer Blends”**, [Semra Tan](#), Sylwia Walus, Torbjörn Gustafsson, Daniel Brandell, XII International Symposium on Polymer Electrolytes (ISPE-12) Padova, Italy 2010.
- **“3-D Microbattery Electrolyte by Self-Assembly of Oligomers”**, [Semra Tan](#), Daniel Brandell, Torbjörn Gustafsson, IMLB 2010 - The 15th International Meeting on Lithium Batteries, Montreal, Canada 2010.
- **“Synthesis and Electrochemical Properties of LiCr_{0.2}Ni_{0.4}Mn_{1.4}O₄ Spinel as 5V Cathode Material”**, Serdar Tan, Sara Malmgren, [Semra Tan](#), IMLB 2010 - The 15th International Meeting on Lithium Batteries, Montreal, Canada 2010.
- **“A Study on Thermal and Mechanical Properties of Mechanically Milled HDPE and PP”**, [Semra Tan](#), Serdar Tan, Proceedings of 3rd Balkan Metallurgy Conference, Ohrid, Republic of Macedonia 2003, pp 310-315.

Ulusal Konferans Sunumları

- “Serpentin Mineraliyle Güçlendirilen Polipropilenin Mekanik ve Morfolojik Özellikleri”, Semra Tan, Teoman Tinçer, II. Ulusal Polimer Bilim ve Teknolojisi Kongresi ve Sergisi, Harran Üniversitesi, Şanlıurfa 2008.
- “Al(OH)₃ ve BaSO₄ Katkılı Polipropilen Kopolimerinin Özellikleri ve Karakterizasyonu”, Semra Can, Teoman Tinçer, XVI. Ulusal Kimya Konferansı, Selçuk Üniversitesi, Konya 2002.