

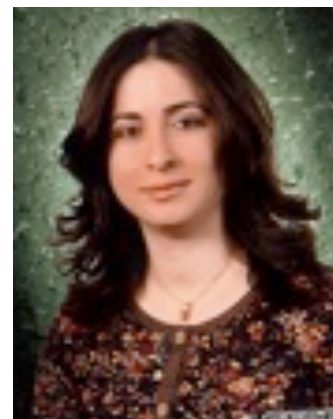
Curriculum Vitae

Asst.Prof. ASUMAN CELIK KUCUK

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A) PERSONAL INFORMATION

- Birthplace ; Rize, Turkey
- Birthdate: 15.03.1979
- Marital Status: Married

B) EDUCATIONAL INFORMATION

- **2008-2011 *PhD***, Institute of Multidisciplinary Research for Advanced Materials, Faculty of Engineering, Tohoku University, Japan
- **2006-2014 *PhD***, Organic Chemistry, Gebze Technical University
- **2003-2005 *M.Sc***, Inorganic Chemistry, Gebze Technical University
- **1997-2001 *B.Sc***, Chemistry, Marmara University, Istanbul, Turkey

C) AWARDS

- L'Oréal–Unesco, National Fellowship for Young Woman in Science–2014
- A part of doctoral study highlighted in Technological section of Natural Newspaper (Kagaku Kogyo Shimbun) in Japan, August 8, 2011
- Japanese Government (Monbukagakusho) Scholarship (2008-2011)
- 3th ranked poster in international conference (8th International Electrochemistry Meeting, October 8-11, Antalya, Turkey, 2009).

D) FOREIGN LANGUAGES

- English (Advance),
- Japanese (Basic)

E) RESEARCH FIELDS

- Rechargeable battery technology, Ion conducting electrolytes, Fuel Cell and Hydrogen Energy,
- Investigations of monolayer properties of organized organic-inorganic hybrid material using Langmuir-Blodgett (LB) technique as molecular architecture technology and fabrication of core-coronae assemblies onto solid supports
- Macromolecules, star and organometallic polymer synthesis, controlling polymerization techniques, conductive polymers, and amperometric biosensors.

F) PATENTS

- Tokuji Miyashita, Jun Matsui, **Asuman Celik Kucuk**. Proton-Conducting Membrane Based on Newly Synthesized Silsesquioxane Derivatives, Registration Date: 15.05.2015, Application Number; JP2011-142262, Patent Number 5742510)

G) JOURNAL PAPERS

- **1) Asuman Celik Kucuk**, Ion conducting behaviour of silsesquioxane based materials` used in fuel-cell and rechargeable battery applications, **Journal of Structural Chemistry** (in press), 2017
- **2) Asuman Celik Kucuk**, Jun Matsui, and Tokuji Miyashita. Effects of Subphase Composition on the Monolayer Properties of “Core-coronae” Type Hybrid Amphiphiles **Thin Solid Films**, Volume 534, 1 May 2013, Pages 577-583
- **3) Matsui, J., Kucuk, A.C., Miyashita, T.**, Monolayer property of "CoreCoronae" type hybrid amphiphile with four hydrogen-bonding groups at airwater interface, **Chemistry Letters** 41 (10), pp. 1204-1206, 2012
- **4) Asuman Celik Kucuk**, Jun Matsui, and Tokuji Miyashita, Proton-conducting electrolyte film based on Phosphonic acid Functionalized Double-decker-shaped Polyhedral Silsesquioxanes, **Journal of Material Chemistry**, 2012, 22, 3853-3858.
- **5) Asuman Celik Kucuk**, Faruk Yilmaz, Hatice Can, Hakan Durmaz, Arif Kosemen, Ali Ekrem Muftuoglu. “Synthesis of a Novel Macroinimer Based on Thiophene and Poly(ϵ -caprolactone) and Its Use in Electrochromic Device Application”, **Journal of Polymer Science Part A: Polymer Chemistry**, 49 (2011) Pages 4180-4192,
- **6) Asuman Celik Kucuk**, Jun Matsui, and Tokuji Miyashita. Effects of Hydrogen Bonding on the Monolayer Properties of Amphiphilic Double-decker Shaped Polyhedral Silsesquioxanes. **Langmuir**, 2011, 27 (10), Pages 6381–6388
- **7) Ali Turker, Faruk Yilmaz, Asuman Celik Kucuk, Yusuf Ozdemir.** One-Pot Two-Step Lipase-Catalyzed Synthesis of α , ω -Thiophene Capped Poly(ϵ -caprolactone) Macromonomers and Their Use in Electropolymerization. **Polymer Bulletin**, 2011, 67 (8), Pages 1483-1498, DOI 10.1007/s00289-011-0467-2

- **8) Asuman Celik Kucuk**, Jun Matsui, and Tokuji Miyashita. Langmuir-Blodgett Films Composed of Amphiphilic Double-Decker Shaped Polyhedral Oligomeric Silsesquioxanes. **Journal of Colloid and Interface Science**, Volume 355, Issue 1, 2011, Pages 106-114
- **9)** Seyda Korkut Ozoner, Faruk Yilmaz, **Asuman Celik**, Bulent Keskinler, Elif Erhan. A novel poly(glycine methacrylate-co-3-thienylmethyl methacrylate)-polypyrrole-carbon nanotube-horseradish peroxidase composite film electrode for the detection of phenolic compounds. **Current Applied Physics**, Volume 11, 2011, Pages 402-408.
- **10)** Sulak, Meral Topcu; Erhan, Elif; Keskinler, Bulent; Yilmaz, Faruk; **Celik, Asuman**. Development of amperometric biosensor for phenolic compounds using a modified electrode with poly GMA-co-MTM and laccase. **Sensor Letters**, Vol. 8, (2), 2010, pp. 262-267(6)
- **11)** Seyda Korkut Ozoner, Elif Erhan, Faruk Yilmaz, **Asuman Celik**, Bulent Keskinler. Newly synthesized Poly(glycidyl methacrylate-co-3-thienylmethylmethacrylate) based electrode designs for phenol biosensors. **Talanta**, Volume 81, Issues 1-2, 15 April 2010, Pages 82-87
- 12) Asuman Celik**, Nurufe Kemikli, Ramazan Ozturk, Ali Ekrem Muftuoglu, Faruk Yilmaz. Synthesis, characterization and thermal properties of a novel star polymer consisting of poly(ϵ -caprolactone) arms emanating from an octa-functional porphyrazine core. **Reactive and Functional Polymers**, Volume 69, Issue 9, September 2009, Pages 705-713
- **13)** Arif Kosemen, S. Eren San, Yusuf Yerli, Mustafa Okutan, Melek Uygun, Faruk Yilmaz, **Asuman Celik**. Stability Enhancement of Dual-Type Electrochromic Device via Single Wall Carbon Nano Tube Employment in Gel Electrolyte. **Polymer Engineering & Science**, Volume 49, Issue 7, Date: July 2009, Pages: 1311-1315

H) INTERNATIONAL PROCEEDINGS

ORAL

- 1) **Asuman Celik Kucuk**, New Generation High Durable Electrolyte for Li-ion Batteries, 2016 5th International Conference on Power Science and Engineering (ICPSE 2016) Dec 14-17, 2016 in Venice, Italy
- 2) **Asuman Celik Kucuk**, Jun Matsui, and Tokuji Miyashita. High Durable Polymer Electrolyte Membrane for Fuel-Cell Applications, 6th International Conference on Value Chain Sustainability, which will be held at the Goztepe Campus of Marmara University, Istanbul, Turkey on March 12-13, 2015.
- **3) Asuman Celik Kucuk**, Jun Matsui, Tokuji Miyashita. New generation proton-conducting electrolyte membranes based on silsesquioxane derivatives, ICWEE 2013, Kusadası, September 21-24, 2013
- 4) Jun Matsui, **Asuman Celik Kucuk**, Tokuji Miyashita. Core-coronae type hybrid amphiphiles based on Polyhedral Silsesquioxanes. 2nd Molecular Materials Meeting (M3) Singapore, An International conference on "Frontiers in Materials Science, Chemistry&Physics, 9-11 January 2012

- 5) Jun MATSUI, **Asuman Celik KUCUK**, and Tokuji MIYASHITA Hydrogen-bonding network in amphiphilic silsesquioxanes for nanostructure formation. 61th SPSJ Spring Annual Meeting. 2012, JAPAN
- 6) **Asuman Celik Kucuk**, Jun Matsui, and Tokuji Miyashita. Hydrogen-bonding Effect to the Monolayer Behavior of Amphiphilic Double-Decker Shaped Polyhedral Oligomeric Silsesquioxane. 60th SPSJ Spring Annual Meeting. 25-27 May, 2011, Osaka, JAPAN
- 7) **Asuman Celik Kucuk**, Jun Matsui, and Tokuji Miyashita. Fabrication of High-Quality Ultrathin Hybrid Film with Blending of Newly Synthesized Amphiphilic POSSs. International conference on Nanoscopic Colloids, September 19-22, 2010, Makuhari, Chiba, JAPAN
- 8) **Asuman Celik Kucuk**, Jun Matsui, and Tokuji Miyashita. Blends of Newly Synthesized Amphiphilic POSSs to form Ultrathin Film, Global COE conference, 2010, Sendai, JAPAN
- 9) **Asuman Celik Kucuk**, Jun Matsui, and Tokuji Miyashita. Morphological Studies of Amphiphilic Polyhedral Oligomeric Silsesquioxane Ultrathin Films Prepared by Langmuir Blodgett Technique, 59th SPSJ Spring Annual Meeting. 2010, Yokohama, JAPAN
- 10) **Asuman Celik Kucuk**, Jun Matsui, and Tokuji Miyashita. Monolayer Behaviors of Amphiphilic Double-Decker-Shaped Polyhedral Oligomeric Silsesquioxanes, International FAPS conference October 21, 2009, Nagoya, JAPAN

POSTER

- 11) **Asuman Celik Kucuk**, Jun Matsui, Takuji Miyashita, “Preparation of High Durable Electrolytes for Li-ion Batteries” Workshop on Ion Exchange Membranes for Energy Applications, BAD ZWISHENAHN, Germany, June 22-24, 2015.
- 12) **Asuman Celik Kucuk**, Faruk Yilmaz, Arif Kosemen, The use of ABC Type Polymer in Electrochromic Device Application, 12th International Conference on Atomically Controlled Surfaces, Interfaces and Nanostructures (ACSIN-12) in conjunction with the 21st International Colloquium on Scanning Probe Microscopy (ICSPM21), Tsukuba, Japan, November 4-8, 2013
- 13) **Asuman Celik Kucuk**, Preparation of Silsesquioxane based material as an electrolyte to use in Fuel-Cell Applications, 4th International R&D Brokerage Event, 2-3 Feb, 2012, Turkey.
- 14) **Asuman Celik Kucuk**, Jun Matsui, and Tokuji Miyashita. “Core-Corona” Type Amphiphilic Double- Decker Shaped Polyhedral Oligomeric Silsesquioxane. 60th SPSJ Spring Annual Meeting. 25-27 May, 2011, Osaka, JAPAN (Japan Vol.60. No 1(2011))
- 15) **Asuman Celik Kucuk**, Jun Matsui, and Tokuji Miyashita. Homogenous Monolayer Formation of Amphiphilic Double-Decker-shaped Polyhedral Oligomeric Silsesquioxane by Langmuir Blodgett Technique, JSPS/NRF 2nd Joint Seminar co-located with Young Scientist Meeting February 24, 2010, Yokohama, JAPAN,
- 16) Ali Demirci, Yusuf Ozdemir, Mesut Gorur, **Asuman Celik**, Faruk Yilmaz. Synthesis and Characterization of a Novel Star Polymer Consisting of Thiophene- End-Capped poly(ϵ -caprolactone) Arms Emanating from an Octa-Functional Polyhedral Oligomeric Silsesquioxane Core and Its Use in Electropolymerization, 8th International Electrochemistry Meeting, October 8-11, Antalya, Turkey, 2009. (the third of the three best poster presentations)

- 17) Arif Kosemen, Mustafa Okutan, S.Eren San, Yusuf Yerli, Melek Uygun, Zuhul Alpaslan Ahmet Demir, Dilek Taskın, Faruk Yılmaz, **Asuman Celik**, Stability Enhancement of Dual-Type electrochromic Devices via Single Wall Carbon Nano Tube Employment in Gel Electrolyte, [4. International Nanotechnology Conference] 09-13 June 2008 (Istanbul)

K) PROJECTS

- **Marmara University (Bab) Project: As a Project Director 2017-2019**

Title of Project; Preparation of polymer composite membrane for moderate and high temperature Fuel Cell Applications

- **L'Oréal–Unesco, National Fellowship for Young Woman in Science: As a Project Director 2014-2015**

Title of Project; Developing novel and high durable electrolytes for Rechargeable Li-ion Battery

- **Marmara University (Bab) Project: As a Researcher 2014-2017**

Title of Project; Researching on Li-ion Battery

- **Marmara University (Bab, 4436) Project: As a Project Director 2013-2016**

Title of Project: Preparation of Novel Electrospun Nanofiber Electrolytes Based on Nano-hybrid Material and Analyzing their Performance for Li-ion Rechargeable Battery

- **Tubitak Project (105T394): As a Researcher 2006-2008**

Title of Project: Synthesing and Characterization of Nanohybrid Silsesquioxane Derivatives composed of thiophene ring

- **Gebze Technical University (BAB; 2005-A-3) Project: As a Researcher, 2005**

Title of Project: Synthesis and Characterization of Novel Monomers Bearing Thiophene group(s) and their Polymerization Products