



Şeyda Tuğba Günday Anıl

Lecturer

Personal Data

Nationality | Turkish

Department | Biophysics, Institute for Research and Medical Consultations (IRMC)

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Office Phone No. | +966532115217

Language Proficiency

Language	Read	Write	Speak
English	Fluent	Fluent	Good
Turkish	Native	Native	Native

Academic Qualifications (Beginning with the most recent)

Date	Academic Degree	Place of Issue	Address
2007	M.Sc. (Chemistry)	Fatih University	Istanbul, Turkey
2004	B.Sc. (Chemistry)	Fatih University	Istanbul, Turkey

PhD, Master or Fellowship Research Title: (Academic Honors or Distinctions)

MSc	Synthesis and Proton Conductivity of Model Polymer -Triazole Hybrid Electrolytes
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Professional Record: (Beginning with the most recent)

Job Rank	Place and Address of Work		Date
Lecturer	Imam Abdulrahman Bin Faisal University	Dammam/KSA	2017 - Now
Specialist Analyst	Bilim Pharmaceuticals	Kocaeli/Turkey	2011 - 2015
Analyst	Actavis Pharmaceuticals	Istanbul /Turkey	2006 - 2011
Res. Assist.	Fatih University	Istanbul/Turkey	2005 - 2006

Scientific Achievements

Published Refereed Scientific Researches

(In Chronological Order Beginning with the Most Recent)

#	Name of Investigator(s)	Research Title	Publisher and Date of Publication
1	<u>S. T. Günday</u> , A. Bozkurt, W. H. Meyer, and G. Wegner.	Effects of different acid functional groups on proton conductivity of polymer-1,2,4-triazole blends	Journal of Polymer Science Part B: Polymer Physics, 44 (23), 3315-3322, 2006. https://doi.org/10.1002/polb.20956
2	<u>S. T. Günday</u> , A. Bozkurt, N. M. Agh Atabay, and A.H. Baykal,	Benzimidazole tethered proton conducting organic electrolytes	Materials Chemistry and Physics, 105, 240-244, 2007. https://doi.org/10.1016/j.matchemphys.2007.04.051
3	Fadime Göktepe, Ayhan Bozkurt and <u>Seyda T. Günday</u> .	Synthesis and proton conductivity of poly(styrene sulfonic acid)/heterocycle-based membranes",	Polymer International, 57 (1), 133-138, 2008. https://doi.org/10.1002/pi.2335
4	<u>Seyda T. Günday</u> and Ayhan Bozkurt.	Preparation and proton conductivity of polymer electrolytes based on alginic acid and 1,2,4-Triazole	Polymer Journal, 40 (2), 104-108, 2008. https://doi.org/10.1295/polymj.PJ2007152
5	Sultan Akhtar, <u>Seyda Tugba Gunday</u> , B. Rabindran Jermy, M.A. Almessiere, Ayhan Bozkurt	A novel approach to produce monodisperse hollow pure silica spheres	Journal of Saudi Chemical Society, 23, 4,477-485, 2019 https://doi.org/10.1016/j.jscs.2018.09.002



#	Name of Investigator(s)	Research Title	Publisher and Date of Publication
6	<u>Seyda Tugba Gunday</u> , Emre Cevik, Abdulmalik Yusuf, Ayhan Bozkurt.	Nanocomposites composed of sulfonated polysulfone/hexagonal boron nitride/ionic liquid for supercapacitor applications	Journal of Energy Storage 21, 672-679, (2019) https://doi.org/10.1016/j.est.2019.01.008
7	Ismail Anil, <u>Seyda Tugba Gunday</u> , Omar Alagha, Ayhan Bozkurt.	Synthesis, Characterization, and Swelling Behaviors of Poly(acrylic acid-co-acrylamide)/Pozzolan Superabsorbent Polymers	Journal of Polymers and the Environment 27, 1086-1095, (2019) https://doi.org/10.1007/s10924-019-01415-0
8	Emre Cevik <u>Seyda Tugba Gunday</u> Abdulmalik Yusuf Ayhan Bozkurt	Boron-incorporated Sulfonated polysulfone/polyphosphoric acid electrolytes for supercapacitor application	Soft Materials 17,2, 203-211(2019) https://doi.org/10.1080/1539445X.2019.1588132
9	<u>Seyda T. Gunday</u> Aneeka Z. Kamal Munirah A. Almessiere Sevim Ü Çelik Ayhan Bozkurt	An investigation of lithium ion conductivity of copolymers based on P(AMPS-co-PEGMA)	Journal of Applied polymer science,136, 30, 47798 (2019) https://doi.org/10.1002/app.47798
10	<u>Seyda Tugba Gunday</u> Emre Cevik Abdulmalik Yusuf Ayhan Bozkurt	Fabrication of Al ₂ O ₃ /IL-Based Nanocomposite Polymer Electrolytes for Supercapacitor Application	Chemistry Select, 4, 19, 5880-5887 (2019) doi.org/10.1002/slct.201900030
11	Emre Cevik <u>Seyda Tugba Gunday</u> Sultan Akhtar Ayhan Bozkurt	A comparative study of various polyelectrolyte/nanocomposite electrode combinations in symmetric supercapacitors	International Journal of Hydrogen Energy, 44, 31,16099-16109 (2019) https://doi.org/10.1016/j.ijhydene.2019.04.267



#	Name of Investigator(s)	Research Title	Publisher and Date of Publication
12	<u>Seyda Tugba Gunday</u> M. A. Almessiere Hamide Aydın Ayhan Bozkurt	Synthesis and Physical Properties of Proton Conducting Polymer Electrolytes Comprising PAM Cross-Linked Flexible Spacers	Macromolecular Research, 27,713-719, (2019) https://doi.org/10.1007/s13233-019-7093-5
13	Emre Cevik <u>Seyda Tugba Gunday</u> Sultan Akhtar Zain H. Yamani Ayhan Bozkurt	Sulfonated Hollow Silica Spheres as Electrolyte Store/Release Agents: High-Performance Supercapacitor Applications	Energy Technology, 7, 10,1900511 (2019) https://doi.org/10.1002/ente.201900511
14	Suriya Rehman, Seyda T Gunday, Zainab H Alsalem, Ayhan Bozkurt	Synthesis and characterization of novel azole functionalized poly (glycidyl methacrylate) s for antibacterial and anticandidal activity	Current Organic Synthesis,16,7,1002-1009 (2019) https://doi.org/10.2174/1385272823666190828112113
15	Yaman C,Anil I,Jaunich MK, Blaisi N I,Alagha O, Yaman AB, <u>Gunday ST</u>	Investigation and modelling of greenhouse gas emissions resulting from waste collection and transport activities	Waste Management& Research,37, 12,1282-1290 (2019) https://doi.org/10.1177/0734242X19882482
16	Ismail Anil, Seyda Tugba Gunday, Ayhan Bozkurt, Omar Alagha	Design of Crosslinked Hydrogels Comprising Poly (Vinylphosphonic Acid) and Bis [2-(Methacryloyloxy) Ethyl] Phosphate as an Efficient Adsorbent for Wastewater Dye Removal	Nanomaterials, 10, 1, 131(2020) https://doi.org/10.3390/nano10010131
17	<u>Seyda Tugba Gunday</u> , Emre Cevik, Abdulmalik	Synthesis, characterization and supercapacitor application of ionic liquid incorporated	Journal of Physics and Chemistry of Solids, 137, 109209, (2020) https://doi.org/10.1016/j.jpccs.2019.109209



#	Name of Investigator(s)	Research Title	Publisher and Date of Publication
	Yusuf, Ayhan Bozkurt	nanocomposites based on SPSU/Silicon dioxide	
18	<u>Seyda Tugba Gunday</u> , Emre Cevik, Ismail Anil, Omar Alagha, Ayhan Bozkurt	High-temperature symmetric supercapacitor applications of anhydrous gel electrolytes including doped triazole terminated flexible spacers	Journal of Molecular Liquids,301, 112400 (2020) https://doi.org/10.1016/j.molliq.2019.112400
19	Emre Cevik, <u>Seyda Tugba Gunday</u> , Ismail Anil, Omar Alagha, Ayhan Bozkurt	Construction of symmetric supercapacitors using anhydrous electrolytes containing heterocyclic oligomeric structures	International Journal of Energy Research 44, 4, 3203-3214, (2020) https://doi.org/10.1002/er.5097
20	Emre Cevik, <u>Seyda Tugba Gunday</u> , Ayhan Bozkurt, Rachid Amine, Khalil Amine	Bio-inspired redox mediated electrolyte for high performance flexible supercapacitor applications over broad temperature domain	Journal of Power Sources, 474, 228544 (2020) https://doi.org/10.1016/j.jpowsour.2020.228544
21	<u>Seyda T Gunday</u> , Emre Cevik, Ismail Anil, Omar Alagha, Hussein Sabit, Ayhan Bozkurt	Symmetric Supercapacitor Application of Anhydrous Gel Electrolytes Comprising Doped Tetrazole Terminated Flexible Spacers	Macromolecular Research, 28,1074-1081 (2020) https://doi.org/10.1007/s13233-020-8150-9
22	<u>Seyda Tugba Anil</u> , Talal Qahtan, Emre Cevik, Ismail Anil, Omar Alagha, Ayhan Bozkurt	Highly Flexible and Tailorable Cobalt-Doped Cross-Linked Polyacrylamide-Based Electrolytes for Use in High-Performance Supercapacitors	Chemistry–An Asian Journal, 16, 11, 1438-1444 (2021) https://doi.org/10.1002/asia.202100276
23	<u>Seyda Tugba Gunday</u> , Huseyin Tombuloglu, Ismail Anil, Omar Alagha, Ayhan Bozkurt	Natural pozzolan super-absorbent polymer: synthesis, characterization, and its application on plant growing under drought condition	International Journal of Energy and Environmental Engineering 12, 4, 751-760, (2021) https://doi.org/10.1007/s40095-021-00404-1



#	Name of Investigator(s)	Research Title	Publisher and Date of Publication
24	Emre Cevik, Banu Karaman, Seyda Tugba Gunday, Ayhan Bozkurt	Graft copolymer electrolytes for electrochemical double layer electrochemical capacitor applications	Synthetic Metals, 278, 116814, (2021) https://doi.org/10.1016/j.synthmet.2021.116814
25	Cevat Yaman, Ismail Anil, Omar Alagha, Nawaf I Blaisi, Ayse Burcu Yaman, Aleem Qureshi, Emre Cevik, Suriya Rehman, Seyda Tugba Gunday, Mohammad Barghouthi	Toluene Bioremediation by Using Geotextile-Layered Permeable Reactive Barriers (PRBs)	Processes, 9, 6, 906, (2021) https://doi.org/10.3390/pr9060906
26	S Akhtar, <u>ST Gunday</u> , AI Alqosaibi, H Aldossary, A Bozkurt, FA Khan	Template-free preparation of iron oxide loaded hollow silica spheres and their anticancer proliferation capabilities	RSC Advances 12,11, 6791-6802 (2022) 10.1039/D1RA08216G
27	Sultan Akhtar, SM Asiri, Firdos Alam Khan, <u>ST Gunday</u> , Arfa Iqbal, Noor Alrushaid, OA Labib, GR Deen, FZ Henari	Formulation of gold nanoparticles with hibiscus and curcumin extracts induced anti-cancer activity	Arabian Journal of Chemistry, 15, 2, 103594 (2022) https://doi.org/10.1016/j.arabjc.2021.103594
28	Emre Cevik, <u>Seyda Tugba Gunday</u> , Arfa Iqbal, Sultan Akhtar, Ayhan Bozkurt	Synthesis of hierarchical multilayer N-doped Mo ₂ C@MoO ₃ nanostructure for high-performance supercapacitor application	Journal of Energy Storage, 46,103824, (2022) https://doi.org/10.1016/j.est.2021.103824
29	Emre Cevik <u>Seyda Tugba Gunday</u> Ayhan Bozkurt Arfa Iqbal Sarah M. Asiri Ameerah N. Alqarni Atheel Almofleh	Scalable, Quasi-Solid-State Bio-polymer Hydrogel Electrolytes for High-Performance Supercapacitor Applications	ACS Sustainable Chemistry & Engineering, 10,33, 10839-108848 (2022) https://doi.org/10.1021/acssuschemeng.2c02281



#	Name of Investigator(s)	Research Title	Publisher and Date of Publication
30	Syed Shaheen Shah, Md Abdul Aziz, Emre Cevik, Muhammad Ali, <u>Seyda T Gunday</u> , Ayhan Bozkurt, Zain H Yamani	Sulfur nano-confinement in hierarchically porous jute derived activated carbon towards high-performance supercapacitor: Experimental and theoretical insights	Journal of Energy Storage, 56, 105944 (2022) https://doi.org/10.1016/j.est.2022.105944
31	<u>Seyda T Gunday</u> , Emre Cevik, Sarah Asiri, Arfa Iqbal, Atheel Almoftleh, Ameerah N Alqarni, Ismail Anil, Omar Alagha, Ayhan Bozkurt	Synthesis of boron-doped non-flammable anhydrous electrolytes for flexible quasi-solid-state supercapacitor applications	Energy & Fuels, 36, 21, 13229-13237 (2022) https://doi.org/10.1021/acs.energyfuels.2c01987
32	Huseyin Tombuloglu, Cevat Yaman, Imane Boudelloua, Emre Cevik, Ismail Anil, Omer Aga, Ayse B Yaman, Aleem Qureshi, <u>Seyda Tugba Gunday</u>	Metagenome analyses of microbial population in geotextile fabrics used in permeable reactor barriers for toluene biodegradation	3 Biotech, 13, 2, 40 (2023) https://doi.org/10.1007/s13205-023-03460-y
33	Fatimah Alahmari, <u>Seyda T Gunday</u> , Arfa Iqbal, Sarah M Asiri, Ayhan Bozkurt, Talal F Qahtan, Emre Cevik	Synthesis of Zn doped CrV spinel oxide nanostructures for flexible supercapacitor and hydrogen evolution reaction	International Journal of Hydrogen Energy (2023) https://doi.org/10.1016/j.ijhydene.2023.06.199
34	Tahani M Alfareed, Atheel Almoftleh, Sarah M Asiri, Jwahr M AlGhamdi, <u>Seyda Tugba Gunday</u> , Emre Cevik	Molybdenum-cobalt micro-nano interface assisted ultrasensitive and selective non-enzymatic glucose biosensor	Microchemical Journal, 191, 108923, (2023) https://doi.org/10.1016/j.microc.2023.108923
35	Emre Cevik, Ayhan Bozkurt, <u>Seyda Tugba Gunday</u> , Talal F	Synthesis of NiO/Fe ₂ VO ₄ nano-hybrid structures via sonication induced approach	Journal of Energy Storage, 68, 107873, (2023) https://doi.org/10.1016/j.est.2023.107873



#	Name of Investigator(s)	Research Title	Publisher and Date of Publication
	Qahtan, Qasim A Drmosh, Khaled A Elsayed, Sultan Akhtar, Ayyaz Mustafa	for electrochemical energy storage in non-aqueous medium	
36	<u>Seyda Tugba Gunday</u> , Emre Cevik, Ayhan Bozkurt, Arfa Iqbal, Sarah Asiri, Amal AlGhamdi, Atheel Almofleh, Talal F. Qahtan, Fatimah Ali Youssef Al-Fares, and Omer Isik	Nonflammable Supramolecular Polymer Electrolytes for Flexible and High-Performance Supercapacitor Applications	American Chemical Society https://doi.org/10.1021/acs.energyfuels.3c03614 2023/12/7 Energy Fuels 2023, 37, 24, 19939–19949
37	Ameerah N Alqarni, Emre Cevik, MA Almessiere, A Baykal, MA Gondal, Ayhan Bozkurt, Arfa Iqbal, Sarah M Asiri, Y Slimani, <u>Seyda T Gunday</u>	High Voltage Asymmetric Supercapacitors Using Tungsten-Doped Mn-Co Spinel Ferrite Electrodes	ChemistrySelect https://doi.org/10.1002/slct.202303656

Scientific Research Papers Presented to Refereed Specialized Scientific Conferences

#	Name of Investigator(s)	Research Title	Conference and Publication Date
1	<u>Seyda T. Gunday</u> and Ayhan Bozkurt	Proton conducting polymer electrolytes	National Hydrogen Energy Congress, Istanbul, Turkey. 2006.

Patents

#	Name of Investigator(s)	Research Title	Patent or Application number and Publication Date
1	<u>Ayhan Bozkurt, AGA Omer, Huseyin Tombuloglu, ANIL</u>	Super absorbing resin composite with base material	US Patent App. 17/742,973



#	Name of Investigator(s)	Research Title	Patent or Application number and Publication Date
	<u>Ismail, Seyda Tugba G Anil</u>	for improving soil water retention	
2	<u>Ayhan Bozkurt, AGA Omer, Huseyin Tombuloglu, ANIL Ismail, Seyda Tugba G Anil</u>	Method for improving water retention in a soil	US Patent 11,352,559
3	Ayhan Bozkurt, <u>Seyda T Gunday Anil</u> , ANIL Ismail	Method for making polyvinyl hydrogel	US Patent 11,708,435
4	Ayhan Bozkurt, <u>Seyda T Gunday Anil</u> , ANIL Ismail	Crosslinked polyvinyl polymer hydrogel	US Patent 11,649,304
5	Ayhan Bozkurt, <u>Seyda Tugba Gunday Anil</u> , Firdos Alam Khan, Sultan Akhtar	Treatment method for colon cancer	US Patent 11,701,329
6	Ayhan Bozkurt, <u>Seyda Tugba Gunday Anil</u> , Firdos Alam Khan, Sultan Akhtar	Anti-cancer azole compounds	US Patent 10,918,624
7	Ayhan Bozkurt, <u>Seyda T Gunday Anil</u> , ANIL Ismail	Aqueous polymerization process for forming crosslinked polyvinyl polymer hydrogel	US Patent 11,618,792
8	A Bozkurt, <u>STG Anil</u> , MA Almessiere, S Akhtar	Water-based hydrolysis method for forming hollow particles	US Patent 12,017,922
9	A Bozkurt, STG Anil, MA Almessiere, S Akhtar	Multi-stage calcination method for making hollow silica spheres	US Patent App. 18/602,710
10	A Bozkurt, E Cevik, STG Anil	Flexible Energy Storage device based on glycerol gel electrolyte	US Patent App. 17/226,862
11	Ayhan Bozkurt, Seyda T Gunday Anil, ANIL Ismail	Crosslinked polyvinyl matrix for water treatment	US Patent 11,479,623, 2022
12	Ayhan Bozkurt, Seyda Tugba Gunday Anil, Firdos Alam Khan, Sultan Akhtar	Method for treating neoplasms using hollow silica spheres	US Patent 11,491,110, 2022



#	Name of Investigator(s)	Research Title	Patent or Application number and Publication Date
13	Ayhan Bozkurt, Seyda Tugba Gunday Anil, Firdos Alam Khan, Sultan Akhtar	Hollow silica spheres with nested iron oxide particles	US Patent App. 18/200,055, 2023 US Patent 11,957,789
14	Ayhan Bozkurt, Seyda Tugba Gunday Anil, Firdos Alam Khan, Sultan Akhtar	Method for making solid silica spheres	US Patent App. 17/823,750, 2022
15	Ayhan Bozkurt, Emre Cevik, <u>Seyda Tugba Gunday Anil</u>	Supercapacitor with gel electrolyte for electrochemical double-layer energy storage	US Patent App. 17/709,713, 2023
16	Ayhan Bozkurt, <u>Seyda T Gunday Anil</u> , ANIL Ismail	Aqueous solution method for forming a hydrogel composition	US Patent 11,814,459, 2023
17	Ayhan Bozkurt, <u>Seyda T Gunday Anil</u> , ANIL Ismail	Polymer hydrogel composition	US Patent 11,795,246, 2023
18	Ayhan Bozkurt, Seyda T Gunday Anil, ANIL Ismail	Aqueous solution method for forming a hydrogel composition	US Patent 11,814,459
19	Ayhan Bozkurt, <u>Seyda T Gunday Anil</u> , ANIL Ismail	Water-based polymer hydrogel system	US Patent 12,037,439, 2024
20	Ayhan Bozkurt, Emre Cevik, <u>Seyda Tugba Gunday Anil</u>	Flexible energy storage device based on glycerol gel electrolyte	US Patent 12,027,314

Completed Research Projects

#	Name of Investigator(s) (Supported by)	Research Title	Report Date
1	Rechargeable Hydrogen Gas Batteries for Grid Storage	2019 – 2023	Ministry of Education – (RDO)
2	Determination of the ultimate aerobic biodegradability of	2021 May-2023	SASO



	plastic materials in soil by measuring the oxygen demand in a respirometer or the amount of carbon dioxide evolved (ISO 17556)		
3	Laboratory Scale In-Situ Petroleum Hydrocarbon Bioremediation by using Geotextile filter, Bacteria and Nutrients	2019-2023	DSR

Current Researches

#	Research Title	Name of Investigator(s)
1	Polymer electrolytes, Supercapacitor, Environmental application of polymer	

Membership of Scientific and Professional Societies and Organizations

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Teaching Activities

Undergraduate

#	Course/Rotation Title	No./Code	Extent of Contribution (no. of lectures/Tutorials. Or labs, Clinics)

Brief Description of Undergraduate Courses Taught: (Course Title – Code: Description)

Postgraduate

#	Course/Rotation Title	No./Code	Extent of Contribution
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			(no. of lectures/Tutorials. Or labs, Clinics)
1			
2			

Brief Description of Postgraduate Courses Taught: (Course Title – Code: Description)

1	
2	

Course Coordination

#	Course Title and Code	Coordination	Co-coordination	Undergrad.	Postgrad.	From	To

Guest/Invited Lectures for Undergraduate Students

#	Activity/Course Title and Code	Subject	College and University or Program	Date

Student Academic Supervision and Mentoring

#	Level	Number of Students	From	To

Supervision of Master and/or PhD Thesis

#	Degree Type	Title	Institution	Date

Ongoing Research Supervision

#	Degree Type	Title	Institution	Date

Administrative Responsibilities, Committee and Community Service (Beginning with the most recent)



Administrative Responsibilities

#	From	To	Position	Organization




Volunteer Work

#	From	To	Type of Volunteer	Organization
	Seyda Tugba Gunday Anil	master student Atheel Almofleh	Assisting in research, experimentation and article writing	IRMC
	Seyda Tugba Gunday Anil	master student Ameera Alqarni	Assisting in research, experimentation and article writing	IRMC
	Seyda Tugba Gunday Anil	master student Amalg Algamdi	Assisting in research, experimentation and article writing	IRMC
	Seyda Tugba Gunday Anil	Environm ental Engineeri ng student	Dye absorbance experiment was conducted with environmental engineering students	IRMC

Personal Key Competencies and Skills: (Computer, Information technology, technical, etc.)

1	<i>Computer & IT</i> MS Office, Origin, Chem Office,
2	<i>Technical</i> Fourier-transform infrared spectroscopy (FTIR), High-performance liquid chromatography(HPLC) Ion Chromatography (IC), Gas Chromatography (GC), Karl Fischer titration (KF) Dissolution, Ultra Performance Liquid Chromatography(UPLC), Optical Rotation Polarimeter, differential scanning calorimetry (DSC) and thermogravimetric analysis (TGA).



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	https://orcid.org/0000-0002-6522-9979

Last Update

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