

Name Surname: Tugba Ozer
Adress: Davutpasa Mah. Davutpasa Caddesi
Yildiz Teknik Universitesi
Kimya Metalurji Fakultesi Biyomuhendislik Bolumu
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PERSONAL

Date of Birth: December 17, 1988

Place of Birth: Istanbul, Turkey

Citizenship: Turkish

EDUCATION

Yildiz Technical University, Istanbul, Turkey

PhD in Bioengineering

2013-present

GPA: 3.88/4.00

Thesis: Development of Iron Selective Electrodes and Application on Soil and Water Samples

Marmara University, Istanbul, Turkey

M.Sc. in Bioengineering

June 2013

GPA: 4.00/4.00

Thesis: Bioinformatics Based Metabolic Network Reconstruction of Levam Producing *Halomonas smyrnensis* AAD6

Marmara University, Istanbul, Turkey

B.Sc. in Chemical Engineering

June 2010

Thesis: Solubility of Calcium sulphate dihydrate in HCl solutions

GPA: 3.11/4.00

Anadolu University, Istanbul, Turkey

BS in Foreign Trade

June 2010

AREAS OF SPECIALIZATION

Electrochemistry, Environmental Chemistry, Analytical Chemistry, Heavy metals, Sensors, Crop Science, Wastewater, Drinking Water, Groundwater, Nanoparticles, Biopolymer, Bioinformatics, Systems Biology, Metabolic Engineering.

EMPLOYMENT

Research Assistant

Yildiz Technical University, Istanbul, Turkey
2013-Present
Bioengineering

Teaching Assistant

Yildiz Technical University, Istanbul, Turkey
2013-Present
Bioengineering

Courses: Separation Techniques in Bioengineering, Bioengineering Laboratory I, Bioengineering Laboratory II, Engineering Laboratory.

Quality Assurance Specialist

Merkez Laboratory Pharmaceutical Company, Istanbul, Turkey
2011–2012

Management intern

BOY-POL Dye and Polymer Chemistry, Istanbul, Turkey
07/2010-01/2011

Lab intern

ISKI, Wastewater Treatment Facility, Istanbul, Turkey
06/2008-09/2008

Hostess

Wilderness Hotel and Golf Resort, Wisconsin, USA
06/2009-10/2009

RESEARCH PROJECTS EXPERIENCE

BAPK, Yildiz Technical University, 2016-07-04-DOP03, “The development of new potentiometric polyvinyl chloride membrane iron (II) and (III)-selective electrodes”, Researcher, 01.08.2016- present

BAPK, Yildiz Technical University, 2015-07-04-KAP06, “Design and Application of Potentiometric Micro Sensor Array”, Researcher, 01.09.2015- present

TAGEM-14/ARGE/05, “Development and Application of Calcium and Salicylic Acid Selective Sensors for Early Determination of Plant Diseases in Greenhouses”, Researcher, 01.09.2014- 01.09.2016.

TAGEM-14/ARGE/06, “Green Synthesis of Different Nanoparticles and Effect on Plants”, Researcher, 01.09.2014- 01.09.2016.

BAPK, Yildiz Technical University, 2013-07-04-GEP02, “Simultaneous Production of Plant Nutrition Elements and Electricity in a Microbial Fuel Cell”, Researcher, 14.06.2013-14.10.2015.

TUBITAK-MAG, 110M613, National (3501), “System Based Optimization of Microbial Biopolymer Production”, Researcher, 01.06.2012 – 31.05.2013.

BAPKO, Marmara University, FEN-C-YLP-090113-0010, Institutional (C type), “Bioinformatics based Reconstruction of Metabolic Network for Levan producing *Halomonas smyrnensis AAD6*, Researcher, 09.01.2013 – 09.01.2014.

TUBITAK, 111T016, “Exopolysaccharides (EPSs) Production from Thermophilic Microorganisms” Researcher, 01.09.2011– 01.06.2012.

PUBLICATIONS

ARTICLES

Elif Diken, **Tugba Ozer**, Muzaffer Arikan, Zeliha Emrence, Ebru Toksoy Oner, Duran Ustek and Kazim Yalcin Arga (2015), “Genomic analysis reveals the biotechnological and industrial potential of levan producing halophilic extremophile, *Halomonas smyrnensis AAD6T*, Springerplus, 4: 393.

S. Yasar Yildiz, G. Anzelmo, **T. Ozer**, N. Radchenkova, S. Genc, P. Di Donato, B. Nicolaus, E. Toksoy Oner and M. Kambourova (2014), “*Brevibacillus themoruber*: a promising microbial cell factory for exopolysaccharide production”, Journal of Applied Microbiology (116), 314–324.

PAPERS

Tugba Ozer and Ibrahim Isildak, “Fabrication of an All Solid-State Contact Iron (III)-Selective Sensor Based on Morin as a Sensing Material”, The 2nd International Turkic World Conference on Chemical Sciences, 26-30 October 2016, Skopje, Macedonia.

Ibrahim ISILDAK, Mustafa NIGDE, **Tugba OZER**, “Development of a Micro-Sized Salicylate Selective Electrode for Application in Plant Disease Management: Early Detection of Pathogenic Infections in Tomato Plant”, The 2nd International Turkic World Conference on Chemical Sciences, 26-30 October 2016, Skopje, Macedonia.

Tugba Ozer and Ibrahim Isildak, “A new polymeric membrane Fe (III) ion-selective sensor based on Fe (III)-Morin(3,5,7,2',4'-Pentahydroxyflavone) Schiff base”, European Chemistry Congress, 16-18 June 2016, Rome, Italy.

Tugba Ozer and Ibrahim Isildak, “A Novel iron(II) selective membrane electrode based on 2-Cyanomethyl N-Methyl-N-Phenyl dithiocarbamate and its applications”, European Chemistry Congress, 16-18 June 2016, Rome, Italy.

Tugba Ozer and Ibrahim Isildak, “Development of a Novel Fe(III) Selective Electrode with a Newly Synthesized Morin hydrate- Fe²⁺ Schiff base Complex and Application on Water Samples”, National Water and Health Congress, 26-30 October 2015, Antalya, Turkey (Poster).

Tugba Ozer and Ibrahim Isildak, “Dithiocarbamate Based PVC Membrane Sensor for Detection of Iron(II) ion”, National Water and Health Congress, 26-30 October 2015, Antalya, Turkey (Poster).

Tugba Ozer and Ibrahim Isildak, “Construction of Polymeric Membrane Electrode for Selective Determination of Cu(II) Using 2,3,7,8,12,13,17,18-Octaethyl-21H,23H-porphine as an Ionophore”, National Water and Health Congress, 26-30 October 2015, Antalya, Turkey (Poster).

Tugba Ozer, Ridvan Yildirim, Mustafa Nigde, Israt Jahan and Ibrahim Isildak, “A Novel All Solid-contact PVC Membrane Cu(II)-Selective Sensor Based on 4-benzylpiperidine dithiocarbamate”, BIO ENG”2014 Conference, 27-29 November 2014, Istanbul, Turkey (Poster).

Azade Attar, **Tugba Ozer**, Ibrahim Isildak, “Microorganisms as Biofertilizer, BIO ENG”2014 Conference, 27-29 November 2014, Istanbul, Turkey (Poster).

Tugba Ozer and Ibrahim Isildak,” Metabolic Network Reconstruction and Modelling of Nitrogen Fixation in *Azotobacter paspali*”, FEBS EMBO 2014, 30 August-4 September 2014, Paris, France (Poster).

Ibrahim Isildak, Murat Topuzogulları, Vildan Erci, **Tugba Ozer**, Mustafa Nigde, Duygu Uner, Azade Attar, “Super Adsorbent Biocompatible Hydrogel for Agricultural Applications”, Business Enterprise Industrial Competitiveness Project Market, 22 May 2014, YTU Technology Transfer Office (Poster).

Alime Gones, Hakan Turmus, **Tugba Ozer**, Ismail Agır, Ridvan Yildirim, Mustafa Cemek, Ibrahim Isildak, “Development of a System for Automatic and Rapid Detection of pH and Total Acidity in Crude Milk”, Business Enterprise Industrial Competitiveness Project Market, 22 May 2014, YTU Technology Transfer Office (Poster).

Tugba Ozer, Alime Gones, Hakan Turmus, Ridvan Yildirim, Ibrahim Isildak, “A Novel Potentiometric Sequential Injection Method for the Fast and Precise Determination of pH and Titratable Acidity”, 5th International Symposium on Sustainable Development, ISSD 2014, 15-18 May 2014, Sarajevo, Bosnia-Herzegovina (Poster).

Mustafa Nigde, Ozlem Tavukcuoğlu, **Tugba Ozer**, Azade Attar, Ibrahim Isildak, “A Novel Composite Membrane Phosphate-Selective Sensor and Application for Phosphate Detection in Different Soil Extractants”, 5th International Symposium on Sustainable Development, ISSD 2014, 15-18 May 2014, Sarajevo, Bosnia-Herzegovina (Poster).

Ibrahim Isildak, Melda Altıkatoglu Yapaoz, **Tugba Ozer**, Ozlem Oztolan Tavukcuoglu, Ismail Agır, Vildan Erci, “Protection System for Chemical Attack”, I.Patent Workshop and Manufacturing Technologies Project Market, 18 December 2013, YTU Technology Transfer Office (Poster).

Ibrahim Isildak, Mustafa Nigde, **Tugba Ozer**, Ismail Agır, Ridvan Yildirim, “Modified Graphite for Anode Material of Lithium-Ion Battery Cell”, I.Patent Workshop and Manufacturing Technologies Project Market, 18 December 2013, YTU Technology Transfer Office (Poster).

Ibrahim Isildak, Didem Ozcimen, Gulsum Kılıc, Benan Inan, **Tugba Ozer**, “Enhanced Growing System for Microalg Using Multi Optic Systems”, I.Patent Workshop and Manufacturing Technologies Project Market, 18 December 2013, YTU Technology Transfer Office (Poster).

Ibrahim Isildak, Israt Jahan, Ahmet Hazini, **Tugba Ozer**, Gulsum Kılıc, Vildan Erci, “Early Detection of

Plant Diseases”, I.Patent Workshop and Manufacturing Technologies Project Market, 18 December 2013, YTU Technology Transfer Office (Poster).

Tugba Ozer and Kazim Yalcin Arga, “Metabolic Systems Analysis of *Halomonas smyrnensis* AAD6 for Enhanced Levan Biosynthesis”, 10th Carbohydrate Bioengineering Meeting – CBM 2013, 21-24 April 2013, Prag, Czech Republic, (Poster).

Ibrahim Isildak, Ismail Agrı, Ridvan Yildirim, Gokay Vardar, **Tugba Ozer**, Sena Didem Erkal, Azade Attar, Melda Altikatoglu, "Development of the Real-time pH Measurement System for Hydroponic Nutrient Solutions Using Wireless Technology", 10th International Electrochemistry Meeting in Turkey, 4-8 September 2013, Konya, Turkey (Poster).

Tugba Ozer, Yesim Turhan, Elif Sogutcu, Kazim Yalcin Arga, “Analysis of Levan Production Capabilities of *Halomonas smyrnensis* AAD6 via Stoichiometric Metabolic Modelling”, 2nd National Molecular Biology and Biotechnology Congress, 15-18 October 2012, Antalya, Turkey (Poster).

Songul Yasar Yildiz, **Tugba Ozer**, Nadia Radchenkova, Seval Genc, Ebru Toksoy Oner, Margarita Kambourova, “Rheological Characteristics of Exopolysaccharides (EPSs) Produced by *Brevibacillus thermoruber*”, ECB15 (European Congress of Biotechnology), 23-26 September 2012, Istanbul, Turkey (Poster).

Tugba Ozer, Yesim Turhan, Elif Sogutcu, Kazim Yalcin Arga, “Bioinformatics Based Reconstruction of Genome-scale Metabolic Network for Levan Producing Halophilic Bacterium, *Halomonas smyrnensis* AAD6”, The 13th International Conference on Systems Biology, 19-23 August 2012, Toronto, Canada (Poster).

SKILLS

Language - Fluent in English

Computer Skills - Microsoft Office, Matlab, AutoCAD, FORTRAN, OptFlux

Personal Interests - Member, Society of Chemical Engineering
Haydarpasa Alumni Association

CERTIFICATIONS:

Hazardous Waste Generator Training-Online, Colorado State University, 02/17

Renewable Energy Source and Algal Biofuel, Istanbul Development Agency, 07/2015

Atomika Technical Certificate of Training, Malvern Viscotek Brand, SEC-MALS System Application of Polymer, Protein and Biopolymer, 09/2013

III. Yildiz Days of Bioengineering, 05/2013

ITU BIOTECH'12, 04/2012

QIAGEN, SABioscience PCR Array Seminar, Shankar Sellappan Ph.D, 03/2012

E-Foreign Trade (E-Broker), FTL Academy, 02/2012

Biogas Production from Wastes, Turk Chemistry Assosication, 02/2012

OHSAS 18001:2007 Occupational Health & Safety Management System and Internal Auditor, TSC, Education Academy, 01/2012

ISO 14001:2004 Environment Management System and Internal Auditor, TSC Education Academy, 01/2012

ISO 9001:2008 Quality Management System and Internal Auditor, TSC Education Academy, 01/2012

Setting and operation of Pelletization/Granulation Machines Model UICE Lab. and UFBM 1, UMANG PHARMATECH PRIVATE LIMITED/INDIA, 06/2011

GMP and GLP, Merkez Laboratory Pharmaceutical Company, 03/2011

ISO 9001-2008 Quality Management Standard, KOSGEB, 04/2011

ISO 22000:2005 Food safety management systems - Requirements for any organization in the food chain (HACCP), TÜV Rheinland International Standard Certification, 04/2008

KMOğrenci Days of Dye, Chember of Chemical Engineering, 03/2008

Microsoft Office Excellence Professional Certificate, Bilgeadam (120 hours), 09/2007

Foreign Trade Training Seminar, Yorktrade Foreign Trade Institute, *03/2007*

ISO 9001-2000 Quality Management Standard, TÜV Rheinland International Standard Certification, *03/2007*

AWARDS:

TUBITAK PhD Research Scholarship, 2017-present

TUBITAK PhD Scholarship, 2014-present

Haydarpaşa High School Scholarship, 2006-2007