

## **PROF. DR. SERMİN ÖRNEKTEKİN**

**Doçent:** Kimyasal Teknolojiler / Üniversitelerarası Kurul

**Doktora:** Fiziko Kimya / İstanbul Üniversitesi

**Y. Lisans:** Kimya Mühendisliği / İstanbul Üniversitesi

**Lisans:** Kimya Mühendisliği / İstanbul Üniversitesi

### **Araştırma Alanları**

- Hava Kirliliği
- İklim değişikliği
- Sürdürülebilirlik

### **Projeler**

- “Determination and Speciation of Selenium in Plants and Soils for Use in a Human Nutrition Study” National Institutes of Health, MD, ABD Ortak Projesi, Destekleyen Kuruluş Fulbright Scholar Program. (2009 -2010)
- “Together Towards Clean Air in Eskişehir and İskenderun, Turkey MATRA Projesi, Destekleyen Kuruluş Hollanda Hükümeti Dışişleri Bakanlığı. (2006-2010)
- “İskenderun Körfezi Yağmur Suyu Bileşiminin Belirlenmesi” (2008-2009)
- “Hatay Bölgesi Topraklarındaki ve Bitkilerindeki Selenyum Seviyelerinin Saptanması ve Bitkilere Geçiş Parametrelerinin İncelenmesi TÜBİTAK. (2006-2007)
- “Antakya Şehir Atmosferindeki Hava Kirlenici Partiküllerin Kompozisyonunun Belirlenmesi, (2005-2007)
- “Mersin Bölgesindeki Yağmur Suyu Kompozisyonunun Belirlenmesi”, TÜBİTAK. (2004-2006)
- “Sanayileşmenin İskenderun Körfezi Civarında Oluşturduğu Hava Kirliliği Probleminin İncelenmesi ve Hava Kirliliği Yönetim Planının Geliştirilmesi”, DPT. (1999-2002)
- “İskenderun Körfezinde Kurulu Sanayi Kuruluşlarının Neden Olduğu Hava ve Toprak Kirliliği”, (1997-2000)

- “Sea Water and Atmospheric Pollution Analysis and Source Apportionment in the İskenderun Bay of Turkey, North –East Mediterranean”. Mustafa Kemal Üniversitesi- Cardiff University, Wales, UK, Link Projesi, British Council (1997-1999)
- UNIFAC Modeli ile Çevre Kirletici Organik Maddelerin Uçuculuk Parametrelerinin Hesaplanması ve Deneysel Çalışmalarla Karşılaştırılması, ” (1995-1997)

### Yönetilen Yüksek Lisans Tezleri

- İskenderun Körfezinde, Partikül Madde (PM10 ve PM2,5) Derişimleri ve İçeriğinin Ölçülerek Hava Kirliliğinin Bugünkü Düzeyinin ve Modelleme ile Gelecekteki Düzeyinin Belirlenmesi
- İskenderun Körfezindeki Yağmur Suyunun Bileşiminin Belirlenmesi
- Biyodizel Üretimi ve Biyodizelin Çevreye Etkileri.
- Antakya’da Şehir Atmosferindeki Hava Kirletici Partiküllerinin Kompozisyonunun Belirlenmesi
- İskenderun Körfezindeki Yağmur Suyunun Asiditesi ve İçindeki Metal İyonlarının Derişimi ve Saptanması
- İskenderun Körfezinde Kurulu Sanayi Kuruluşlarının Neden Olduğu Hava ve Toprak Kirliliği

### Yayınlar

#### Uluslararası hakemli dergilerde yayınlanan makaleler

- Katamaya J , **Örnektekin S**, Demir S.S. “ *Policy into Practice on Sustainable Development Related Teaching in Higher Education in Turkey*” Environmental Education Research. 2017 August.
- Demircigil G, Erdem O, Gaga EO, Altuğ H, Demirel G, Özden Ö, Arı A, **Örnektekin S**, Döğeroğlu T, van Doorn W, Burgaz S. “ *Cytogenetic biomonitoring of primary school children exposed to air pollutants: micro nuclei analysis of buccal epithelial cells*” Environ Sci Pollut Res Int. 2014 Jan; 21(2): 1197-207
- Altuğ H., Gaga EO., Döğeroğlu T., Ozden O., **Ornektekin S.**, Brunekreef B., Meliefste K., Hoek G., Van Doorn W. “ *Effects of air pollution on lung function and symptoms of asthma, rhinitis and eczema in primary school children*” *Environmental Science and Pollution Research*: Volume 20, Issue 9 (2013), Page 6455-6467.

- Eftade O. Gaga\*, Tuncay Döğeroğlua, Özlem Özden, Akif Ari, Ozan Devrim Yay, Hicran Altuğ, Nesimi Akyol, **Sermin Örnektekin**, Wim Van Doorn “*Evaluation of air quality by passive and active sampling in an urban city in Turkey: current status and spatial analysis of air pollution exposure*” Environmental Science and Pollution Research 2012 Sep;19(8):3579-96.
- Paul T.J. Scheepers, Joke Koning<sup>1</sup>, Gülcin Demirel, Eftade O. Gaga, Rob Anzion, Petronella G.M. Peer, Tuncay Dogerogl, **Sermin Ornektekin**, Wim van Doorn, “*Determination of Exposure to Benzene, Toluene and Xylenes in Turkish Primary School Children by Analysis of Breath and by Environmental Passive Sampling*”, Science of Total Environment 2010 Sep 15;408(20):4863-70.
- Odabasi, M., Bayram, A., Elbir, T., Seyfioglu, R., Dumanoglu, Y., **Ornektekin, S.**, “*Investigation of Soil Concentrations of Persistent Organic Pollutants, Trace Elements, and Anions Due to Iron–Steel Plant Emissions in an Industrial Region in Turkey*”, Water Air Soil Pollution vol.213, 375–388 (DOI 10.1007/s11270-010-0392-2)(2010).
- Özsoy T., **Örnektekin S.**, “*Trace Elements in Urban and Suburban Rainfall, Mersin, Northeastern Mediterranean*”, Atmospheric Research Vol.94,203-219 (2009).
- Özsoy T., Türker P., **Örnektekin S.**, “*Precipitation Chemistry as an Indicator of Urban Air Quality in Mersin, North-Eastern Mediterranean Region*”, Water, Air and Soil Pollution vol,189, 69-8 (2008).
- Özsoy T., **Örnektekin S.**, “*Kuzeydoğu Akdeniz’de Kızıl Yağmurlar*”, Ekoloji 18, vol.69,20-31 (2008).
- **Örnektekin S.**, Çakmaklı S., “*Chemical Compositon And Acidity of Rain at the Gulf of İskenderun North-East Mediterranean*”, Water Air & Soil Pollution Vol.3,151-166 (2003).
- **Örnektekin S.**, “*Effect of exhaust Gas on the Corrosion of Metals*”, The International J. Enviromental. Studies. Vol. 55, 199-210 (1998).
- **Örnektekin S.**, “*Primary Design of Waste Water Treatment Plants Using Henry's Constants From UNIFAC-FV Model*”, Chemica Acta Turcica, Vol 25, 251-259 (1997).
- **Örnektekin S.**, Lülüfer T., Bilgin R. Ve Terzi T., “*Heavy Metals Pollution in Industrial Zone and its Effect on Soil and Spring Water in İskenderun Bay, North-East Mediterranean*”, NATO ASI Series 2. Environment- Vol.26,411-418 (1997).

- **Örnektekin S.**, Paksoy H.Ö. ve Demirel Y., “*The Performance of UNICEF and Related Group Contribution Models ,II. Prediction of Infinite Dilution Activity Coefficient*”, *Thermochemica Acta*, Vol.287,251-259 (1996).
- Paksoy H.Ö., **Örnektekin S.**, Demirel Y. Ve Balci B., “*The Performance of UNICEF and Related Group Contribution Models 1. Prediction of Infinite Dilution Activity Coefficient*”, *Thermochemica Acta*, Vol.287,235-249 (1996).
- **Örnektekin S.**, “*Prediction of Environmental Properties Using UNIFAC and Related Models*”, *Chemica Acta Turcica*, Vol 23, 67-71 (1995).
- **Örnektekin S.**, Balci B. Ve Mıstıkođlu S., “*A New Temperature Measurement and Control System and its Application to Grain During Warehouse Storage*”, *Chemica Acta Turcia*, Vol 23, 67-71 (1995).
- Baykut S., **Örnektekin S.**, “*A New Method Developed for the Use of Glass Beads as Supporting Material in GLC II. Separation of Fatty Acids Methyl Esters on This New Supporting Material*”, *Revue Roumanie De Chimie*, Vol40, 45-51 (1995).
- Baykut S., **Örnektekin S.**, “*A New Method Developed for the Use of Glass Beads as Supporting Material in GLC*”, *Chemica Acta Turcica*, Vol 13, 183-204 (1985).

#### Yazılan uluslararası kitaplar veya kitaplarda bölümler

- Özsoy T., **Örnektekin S.**, “*Characteristics of Red Rain in the Cilician Basin , Northeastern Mediterranean*” *Environmental and Regional Air pollution, Air Water and Soil Science and Technology Series Chapter 11,p.199-214*, Den Gallo and Richard Mancini ( Editors) Nova Science Publishers, NY 2009.
- Özsoy, T., **S. Örnektekin**, “*Wet Atmospheric Deposition of Inorganic N, P and Fe in the Northeastern Mediterranean and Contribution to Ecosystems*”, In: *Progress in Environmental Science and Technology*, Vol.II Part A, eds. L. Shengcai, W. Yajun, C. Fengxia, H. Ping, Z. Yao, pp. 633-642, Science Press USA Inc., 2009.

#### Uluslararası bilimsel toplantılarda sunulan ve bildiri kitabında (Proceeding) basılan bildiriler.

- Ü. Alver Şahin, B. Onat, T. Akyüz, **Örnektekin S.** “İstanbulda trafik, sanayi ve yerleşimin yoğun olduğu bir bölgede solunabilir partiküllerin element içeriğinin ED-XRF yöntemi ile

belirlenmesi”, Uluslararası katılımlı V. Hava Kirliliği ve Kontrolü Sempozyumu, 18-20 Eylül 2013, Anadolu Üniversitesi, Eskişehir, Türkiye.

- Çelik O., Atak Ç., **Örnektekin S.**, Olgun A. “*Preliminary Study on Radiosensitivity of Two Tomato (*Lycopersicon esculentum* L.) Lines*” First International Biology Congress in Kyrgyzstan, 24-27 September 2012
- Min-Hyuk Yoo, Xue-Ming Xu, Bradley A. Carlson, Peko Tsuji, Ryuta Tobe, Salvador Naranjo-Suarez, **Sermin Örnektekin**, Vadim N Gladyshev, Dolph L. Hatfield, “*How Selenium has altered our understanding of genetic code*” 9th International Symposium on Selenium in Biology and Medicine, Kyoto, Japan, May 31-June 4, 2010.
- Scheepers PTJ, Konings J, Demirel G, Gaga EO, Anzion R, Peer PGM, Dogeroglu T, Örnektekin S, Van Doorn W “*Determination of exposure to benzene, toluene and xylenes in Turkish primary school children by analysis of end-exhaled air*” 8 th International Symposium on Biological Monitoring in Occupational and Environmental Health 2010 Espoo, Finland, 2010.
- Scheepers P.T.J., Koningsa J. Demirel G., Gaga O. E., Anziona R., Peera P., Döğeroğlu T., **Örnektekin S.**, Doorn W.V., “*Exposure to benzene, toluene and xylene determined in children of primary schools in Turkey using breath analysis*” X 2009 International Conference on Innovations in Exposure assessment, Boston, USA, 17-20 August 2009.
- Özsoy T. and **Örnektekin S.**, “*Wet Atmospheric Deposition of Organic N, P and Fe in the Northeastern Mediterranean and Contribution to Ecosystems*” Progress in Environmental Science and Technology, Proceedings of the 2009 International symposium on Environmental Science and Technology, vol. II Part AP. p. 633-642, L. Shengcai, W. Yajun, C. Fenxia, H. Ping, Z. Yao (Eds), Science Press USA Inc., Shanghai, China, June 2-5 2009.
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- **Örnektekin S.**, “*Mustafa Kemal University in Hatay*”, Turkey, “*Institutional Presentation*”, Proceeding of TASSA Annual Conference, Philadelphia, USA, 25-26 March, 2006.
- **Örnektekin S.**, Sungur Ş., Sangün M.K., Bilgin R., “*Determination of Selenium Content of Some Plants and Soils in Hatay Region*” 5<sup>th</sup> Aegean Analytical Chemistry Days, Thessaloniki, Greece, 5-8 October 2006.

- Bilgin R. Dinçkurt I.S., Tükel S., **Örnektekin S.**, "*Purification of Catalase from Tilapia Liver*", Balkan Journal of Clinical Laboratory XII, Tiran Albania, 28 September-01 October 2005.,
- Özsoy T., **Örnektekin S.**, "*Elemental Composition of Rainwater in Mersin, an Urban Air Site in the North-Eastern Mediterranean*", 3<sup>rd</sup> International Symposium on Air Quality Management at Urban, Regional and Global Scales & 14th IUAPPA regional Conference, p.18-27 İstanbul 26-30 September 2005.
- Özsoy T., Türker P., **Örnektekin S.**, "*Precipitation Chemistry as an Indicator of Urban air Quality in Mersin*", International Conference on Air Pollution and Combustion (CAPAC), Ankara Turkey, 22- 25 June 2005.
- **Örnektekin S.**, Çakmaklı S., Mıstıkoğlu S., "*Chemical Composition and Acidity of Rain at the Gulf of İskenderun, North-East Mediterranean*", Proceedings of the Second International Symposium on Air Quality Management at Urban, Regional and Global Scales, p.525-532 İstanbul Technical University, İstanbul Turkey, 25-28 Eylül 2001.
- Bilgin R., Mıstıkoğlu S., **Örnektekin S.**, Özyılmaz G., "*Levels of Some heavy Metals in Airborne Sea Water And Human Blood in İskenderun Bay*" 5. International Symposium on Applied Bioinorganic Chemistry, Corfu , Greece, 13-17 April 1999.
- **Örnektekin S.**, "*ICP AES Determination of Chemical of Airbone Dust Samples*" Colloquium Spectroscopicum Internationale XXXI, Ankara, 05-10 Eylül 1999.
- Mıstıkoğlu S., **Örnektekin S.**, "*The Long Distance Learning for Technical Education*", IVETA Conference, Quality Matters in International Vocational Education and Training , Ankara, Turkey, 31 August- 2 September 1998.
- **Örnektekin S.**, "*The Effect of Industrialization on Air Quality in İskenderun, North-East Mediterranean*", International Symposium on Air Quality Management, Bildiri Kitabı p.52-52 İstanbul, Turkey 23-26 Eylül 1997.
- **Örnektekin S.**, Lülüfer T., Bilgin R. ve Terzi T., "*Metals Pollution in Industrial Zone and its Effect on Soil and Spring Water in İskenderun Bay, North-East Mediterranean*", NATO ASI, Cytotoxic, Mutagenetic and Carcinogenic Potential of Heavy Metals Related to Human Environment, Presieka, Poland, 15-26 Haziran 1996.

- Bilgin R., Yücebilgiç G., **Örnektekin S.** ve Tükel S., "*Heavy Metals Levels of Male Workers Working in Steel Making Plants in İskenderun Bay*", NATO ASI, Cytotoxic, Mutagenetic and Carcinogenic Potential of Heavy Metals Related to Human Environment, Presieka, Poland, 15-26 Haziran 1996.
- **Örnektekin S.**, "*A Study of Heavy Metals Pollution From Motor Vehicle Emission and its Effect on Soil in İskenderun, North-East Mediterranean*", 35 th IUPAC Congress, İstanbul , 14-19 Ağustos 1995