

PERSONAL INFORMATION

Prof. Dr. Aykan KARADEMİR

📍 University of Kocaeli, Dept. of Environmental Engineering, Kocaeli, Turkey.

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📅 Date of birth 20/06/1972 | 🇹🇷 Nationality Turkish

WORK EXPERIENCE

- Lecturer & Researcher
University of Kocaeli, Department of Environmental Engineering
- Co-Owner
CEVSIS Research & Development (in Kocaeli University Technopark)
(<http://www.cevsis.com/>)

EDUCATION

- MSc and PhD, University of Kocaeli, Department of Environmental Engineering, Kocaeli, Turkey (1995-2002)
- License, Middle East Technical University (METU), Department of Environmental Engineering, Ankara; Turkey (1988-2002).

LANGUAGE AREAS OF EXPERTISE

- English
- Hazardous Pollutants
- Persistent Organic Pollutants (especially dioxins, or PCDD/Fs)
- Health Risk Assessment
- Air Pollution Control Systems
- Contaminated Sites
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SELECTED PROJECTS

- Determination of PCDD/F Concentrations in Food Products and Risk Analysis, 2005-2008 (TÜBİTAK Project, Project Leader).
- Determination of Indoor Air Pollution in Homes, Offices and School in Kocaeli, 2005-2008 (TÜBİTAK Project, Researcher).
- Determination of VOCs in Landfill Gas and Health Risk Assessment, 2005-2007 (TÜBİTAK Project, Researcher).
- Determination and Monitoring of Environmental Pollution in Sediment and Biota Samples Taken from Izmit Bay and Application of Source Estimation Model, 2008-2011 (TÜBİTAK Project, Consultant)
- Determination of POPs in Terrestrial Bioecological Systems by Using Abiotic and Biotic Passive Sampling, 2009-2011 (TÜBİTAK Project, Researcher).
- Determination of Air Pollution and Pollution Sources in Dilovası, Körfez and İzmit, 2008-2012 (Kocaeli Governorship Project, Researcher).
- Contaminated sites assessment for the reduction of environmental pollution by risk-based approach/RISKASSESS, 2013-2015 (TÜBİTAK Project, Project Leader).
- National Implementation Plan for The Stockholm Convention on Persistent Organic Pollutants (POPs), 2013-2015 (UNIDO-Ministry of Environment and Forestry, Expert Responsible for PCDD/Fs Inventory)
- Turkey GEF POPs Legacy Elimination and POPs Release Reduction Project, Management Capacity for POPs Contaminated Sites, 2014-2015 (UNDP-Ministry of Environment and Forestry, National Expert Responsible for POPs-Contaminated Sites).
- Environmental Impact Assessment of IZAYDAS Incinerator, 2019 (TUBİTAK Project, Consultant Responsible for Health Risk Assessment).
- Risk Assessment of Dioxin Emissions of IZAYDAS Incinerator." Funded by Izmit Metropolitan Municipality. Duration: 2001 – 2004. (with University of Newcastle upon Tyne and Yıldız University)

PUBLICATIONS

- A modeling approach on the PCDD/F pollution in surface sediments of the Izmit Bay (The Marmara Sea), *Regional Studies in Marine Science* 2020, Vol. 35, 101195.
- Assessment of PCDD/F and dioxin-like PCB levels in environmental and food samples in the vicinity of İZAYDAS waste incinerator plant (WIP): from past to present, *Environmental Science and Pollution Research* 2020, Vol. 27, 13902–13914.
- VOC and PAH characterization of petroleum coke at maximum thermal decomposition temperature, *Energy Sources, Part A: Recovery, Utilization, And Environmental Effects* 2019, Vol. 41, NO. 11, 1305–1314.
- Effect of waste matrix for the optimization of moisture content and calorific value of biodried material using Taguchi DOE, *Drying Technology* 2019, Vol. 37, No. 11, 1352–1362.
- Crude Oil Contaminated Sites: Evaluation by Using Risk Assessment Approach, *Sustainability*, 2017, 2071-1050, 9, 8.
- Evaluation of three pollutant dispersion models for the environmental assessment of a district in Kocaeli, Turkey, *Global Nest Journal*, 2017, 1790-7632, 19, 1, 37-48.
- The effects of external costs on the system selection for treatment and disposal of municipal solid wastes: a deterministic case study for a pre-assessment, *Journal of Material Cycles and Waste Management*, 2017, 1438-4957, 19, 2, 946- 958
- Did we choose the best one? A new site selection approach based on exposure and uptake potential for waste incineration, *Waste Management & Research*, 2016, 0734-242x, 34, 8, 755-763.
- An Evaluation of PCDD/Fs Mass Flux from A Hazardous Waste Incinerator: The Need for A Reasonable Start-Up Procedure, *Combustion Science and Technology*, 187, 458-468, 2015.
- An Evaluation of The Determinability of Low-Level Dioxin Concentrations by HRGC/LRMS-NCI, *Environmental Engineering and Management Journal*, 13, 3063-3072, 2014.
- Evaluation of PCDD/F pollution in surface sediments of Izmit Bay, *Environmental Science and Pollution Research*, 20, 6611-6619, 2013.
- Dietary Exposure to PCDD/Fs Through Animal Products in a Highly Polluted Area in Turkey, *Human and Ecological Risk Assessment*, 19, 341-353, 2013.
- Assessment of emissions and removal of polychlorinated dibenzo-p-dioxins and dibenzofurans (PCDD/Fs) at start-up periods in a hazardous waste incinerator, *Journal of The Air & Waste Management Association*, 63, 788-795, 2013.
- Siting a municipal solid waste disposal facility, Part one: An evaluation of different scenarios for a site selection procedure, *Journal of The Air & Waste Management Association*, 63, 879-885, 2013.
- Health risk assessment of BTEX emissions in the landfill environment. *Journal of Hazardous Materials*, 18, 1497-1502, 2010.
- Levels of PCDD/Fs in local and non-local food samples collected from a highly polluted area in Turkey. *Chemosphere*, 80, 1213-1219, 2010.
- The prevalence of molar incisor hypomineralization (MIH) in a group of children in a highly polluted urban region and a windfarm-green energy island. *International Journal of Paediatric Dentistry*, 19, 176-185, 2009.
- Dispersion Model Predictions of NOx Emissions: Case Study from Kocaeli, Turkey. *Fresenius Environmental Bulletin*, 18, 1497-1502, 2009.
- Inventory of Emissions of Primary Air pollutants in the City of Kocaeli, Turkey. *Environmental Monitoring and Assessment*, 128, 165-175, 2007.
- Health Risk Assessment of Background PCDD/F Exposure Levels in Kocaeli, Turkey. *Journal of Environmental Science and Health Part A - Toxic/Hazardous Substances & Environmental Engineering*, A42/6, 729-739, 2007.
- Adsorbable Organic Halogens (AOXs) in Solid Residues from Hazardous and Clinical Waste Incineration. *Journal of Environmental Science and Health Part A - Toxic/Hazardous Substances & Environmental Engineering*, 41, 1699-1714, 2006.
- Evaluation of the Potential Air Pollution from Fuel Combustion in Industrial Boilers in Kocaeli, Turkey. *Fuel*, 85, 1884-1893, 2006.
- Leachability of Pollutants from Solid Residues of a Hazardous Waste Incinerator. *Fresenius Environmental Bulletin*, 14, 307-314, 2005.
- Evaluation of PCDD/F Levels in Ambient Air and Soils and Estimation of Deposition Rates in Kocaeli, Turkey. *Chemosphere*, 59, 1373-1385, 2005.
- Health Risk Assessment of PCDD/F Emissions from a Hazardous and Medical Waste Incinerator in Turkey. *Environment International*, 30, 1027-1038, 2004.
- An Evaluation of the Occupational Health Risks to Workers in a Hazardous Waste Incinerator. *Journal of Occupational Health*, 46, 156-164, 2004.
- Removal of PCDD/Fs from Flue Gas by a Fixed-Bed Activated Carbon Filter in a Hazardous Waste Incinerator. *Environmental Science and Technology*, 38, 1201-1207, 2004.
- PCDD/F Removal Efficiencies Of Electrostatic Precipitator and Wet Scrubbers in İzaydas Hazardous Waste Incinerator. *Fresenius Environmental Bulletin*, 12, 1228-1232, 2003.
- Partitioning Characteristics of Targeted Heavy Metals in İZAYDAS Hazardous Waste Incinerator. *Journal of Hazardous Materials*, 99, 89-105, 2003.

