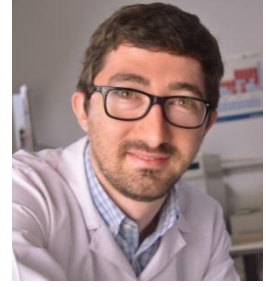


ACADEMIC RESUME

1. **Family name:** KÜÇÜKER
2. **First names:** Mehmet Ali
3. **Date of birth:** April 23,1983
4. **Nationality:** Turkey
5. **Civil status:** Married, 2 children
6. **Address :** İzmir Institute of Technology
Faculty of Engineering
Department of Environmental Engineering
Gülbahçe Campus 35430, Urla / İzmir, Turkey
Mobile: +90 533 6548088
e-mail: mehmetalikucuker@iyte.edu.tr
web: <http://www.linkedin.com/in/mehmetalikucuker>



7. **Professional:** Environmental Engineer, PhD

8. Education

Institution [Date from - Date to]	Degree(s) or Diploma(s) obtained: PhD
06/2012 – 12/2017	Institute of Environmental Technology and Energy Economics at TUHH - Hamburg University of Technology
Institution [Date from - Date to]	Degree(s) or Diploma(s) obtained: Master Degree
09/2007 – 06/2011	Institute of Environmental Sciences, Department of Environmental Technology at Boğaziçi University
Institution [Date from - Date to]	Degree(s) or Diploma(s) obtained: Bachelor's Degree
09/2002 – 07/2007	Department of Environmental Engineering at Kocaeli University

9. Language skills

Language	Reading	Speaking	Writing
Turkish	Mother Thong		
English	Advance	Advance	Advance
German	Beginner	Beginner	Beginner

10. **Other skills:** Computer literacy

11. **Present position:** Assistant Professor, Lecturer and Project Manager

12. Years within the sector: 14 Years

13. Key qualifications: Solid Waste Management, Circular Economy, Bioenergy, E-Waste, Biomining, Recycling and Recovery of Metals, Microalgae Biotechnology, Waste to Energy, Carbon Budget After the Land Use Change, Determination of Asbestos

14. Specific experience in the region:

Country	Date	Description
Italy	09/2008	Training for Elemental Analysis
Turkey	12/2015	Training for Bioleaching of E-waste

15. Professional experience

Date from - Date to	Location	Company	Position	Description
02/2021 – Present	İzmir / Turkey	İzmir Institute of Technology - Department of Environmental Engineering	Assistant Professor	Teaching, Research, Project Development and Management, Qualitative and quantitative analyses of water, wastewater and solid waste, Waste Resources Management, Energy Economics, Circular Economy
11/2018 – 02/2021	Çanakkale / Turkey	Çanakkale Onsekiz Mart University - Department of Environmental Engineering	Assistant Professor	Teaching, Research, Project Development and Management, Qualitative and quantitative analyses of water, wastewater and solid waste, Waste Resources Management, Energy Economics, Circular Economy
12/2011 – 02/2018	Hamburg	TUHH - Hamburg University of Technology - Institute of Environmental Technology and Energy Economics	Research Assistant	Project Development and Management. Biosorption and bioleaching. Qualitative and quantitative analyses of water, wastewater and solid waste
08/2014 – 12/2017	Hamburg	TUHH - Hamburg University of Technology - Institute of Environmental Technology and Energy Economics	Project Manager	<ul style="list-style-type: none"> • Promotion of Turkish-German Research Projects (IntenC) in cooperation with BMBF • “Biotechnological Approach for Recovery of Rare Earth Elements and Precious Metals from E-Waste – (BIOREEs)” • Promotion of Russian-German Research Project in cooperation with Ural Federal University “Biological Approach for Recovery of Rare Earth Elements and Scandium from Uranium Solution Obtained by Underground Leaching - BARREES”

Curriculum Vitae of Mehmet Ali Küçüker

Date from - Date to	Location	Company	Position	Description
03/2015 – 03/2019	Hamburg	TUHH - Hamburg University of Technology - Institute of Environmental Technology and Energy Economics	Management Committee and Researcher	COST Action ES1407, European network for innovative recovery strategies of rare earth and other critical metals from electric and electronic waste (ReCrew).
06/2007-06/2010	İstanbul	BOĞAZIÇI UNIVERSITY – Institute of Environmental Sciences	Research Assistant	COST Project “Deforestation in Karasu Forests in Western Black Sea Region and the Analysis of Carbon Cycle after Land Use Change”
06/2008-06/2009	İstanbul	BOĞAZIÇI UNIVERSITY – Institute of Environmental Sciences	Technical Support	Promotion of Civil Society Dialogue between EU and Turkey Project “Renewable Energy Networks between Turkish and European Universities (RENET)”
06/2010 - 11/2011	İstanbul	BOĞAZIÇI UNIVERSITY – Institute of Environmental Sciences	Research Assistant	TUBİTAK Project “Contaminant transport in the groundwater: hydrodynamic dispersion under high concentration gradients”
07/2006-09/2006	Çorlu / Tekirdağ	DESA	Internship	Operating Waste Water Treatment Processes
07/2005-09/2005	İstanbul	GOLDAŞ	Trainee	Enterprise Training in Department of Management

16. Affiliations

- IWWG - International Waste Working Group

17. Scientific Contribution

Articles in peer reviewed international web of science rated journals and books:

- 1) Sarioglu, M.S., Kucuker, M.A., Copty N. K., 2013. Multispecies hydrodynamic dispersion under high concentration gradients, Journal of Contaminant Hydrology, 144 (1), 58-65.
- 2) Oral, V.H., Guney, M., Kucuker, M.A., Copty, N.K., Onay, T.T., Mater, B., Yenigun, O., 2013. The impact of hazelnuts in land-use changes on soil carbon and in situ soil respiration dynamics, Journal of Environmental Management, 129, 341-349.
- 3) Wiczorek, N., Kucuker, M.A., Kuchta, K., 2014. Fermentative Hydrogen and Methane Production from Microalgal Biomass (*Chlorella vulgaris*) in a Two-stage Combined Process, Applied Energy, 132, 108-117.
- 4) Kucuker, M.A., Guney, M., Oral, V.H., Copty, N.K., Onay, T.T., 2015. Impact of deforestation on soil carbon stock and its spatial distribution in the Western Black Sea Region of Turkey. Journal of Environmental Management 147, 227-235.

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- 5) Wieczorek, N., Kucuker, M.A., Kuchta, K., 2015. Microalgae-Bacteria Floccs (MaB-Floccs) as a substrate for fermentative biogas production, *Bioresource Technology*, *Bioresource Technology* 194, 130–136.
- 6) Küçüker, M.A., Nadal, J.B., Kuchta, K., 2016. Comparison Between Batch And Continuous Reactor Systems For Biosorption Of Neodymium (Nd) Using Microalgae, *International Journal of Plant, Animal and Environmental Sciences*, Volume-6, Issue-3, 197-203.
- 7) Kucuker, M.A., Wieczorek, N., Kuchta, K., Coptý N.K., 2017. Biosorption of neodymium on *Chlorella vulgaris* in aqueous solution obtained from hard disk drive magnets. *PLoS ONE* 12(4): e0175255. <https://doi.org/10.1371/journal.pone.0175255>.
- 8) Işıldar, A., van Hullebusch, E. D., Lenz, M., Du Laing, G., Marra, A., Cesaro, A., Panda, S., Akcil, A., Kucuker, M.A., Kuchta, K. 2019. Biotechnological strategies for the recovery of valuable and critical raw materials from waste electrical and electronic equipment (WEEE)—A review. *Journal of Hazardous Materials* 362, 467-481.
- 9) Küçüker, M.A., Xu, X., Kuchta, K., 2019. Extraction Potential of Tantalum from Spent Capacitors Through Bioleaching, *Book of Cascade Use in Technologies 2018*, Springer Vieweg, ISBN 978-3-662-57885-8.
- 10) Sethurajan, M., van Hullebusch, E. D., Fontana, D., Akcil, A., Deveci, H., Batinic, B., Leal, J.P., Gasche, T.A., Kucuker, M.A., Kuchta, K., Neto, I.F.F., Soares, H.M.V.M. & Neto, A.I. F., 2019. Recent advances on hydrometallurgical recovery of critical and precious elements from end of life electronic wastes-a review. *Critical Reviews in Environmental Science and Technology*, 1-64.
- 11) Sahan, M., Kucuker, M. A., Demirel, B., Kuchta, K., & Hursthouse, A., 2019. Determination of Metal Content of Waste Mobile Phones and Estimation of Their Recovery Potential in Turkey. *International Journal of Environmental Research and Public Health*, 16(5), 887.
- 12) Wieczorek, N., Kucuker, M. A., Büscher, N., & Kuchta, K., 2020. Outdoor cultivation of *Chlorella sorokiniana* in third generation biorefinery: Resource savings through medium recycling. *Bioresource Technology*, 310, 12-34.
- 13) Kucuker, M. A., Demirel, B., Onay, T. T., 2020. Enhanced biogas production from chicken manure via enzymatic pretreatment. *Journal of Material Cycles and Waste Management*, 1-8.
- 14) Onen Cinar, S.; Chong, Z.K.; Kucuker, M.A.; Wieczorek, N.; Cengiz, U.; Kuchta, K., 2020. Bioplastic Production from Microalgae: A Review. *Int. J. Environ. Res. Public Health*, 17, 3842.
- 15) Panda, S., Mishra, S., Akcil, A., & Kucuker, M. A., 2020. Microalgal potential for nutrient-energy-wastewater nexus: Innovations, current trends and future directions. *Energy & Environment*, 0958305X20955187.
- 16) Karal, E., Kucuker, M. A., Demirel, B., Coptý, N. K., & Kuchta, K., 2021. Hydrometallurgical recovery of neodymium from spent hard disk magnets: A life cycle perspective. *Journal of Cleaner Production*, 288, 125087.

Oral presentations:

- 1) Kucuker, M.A., Oral, V.H., Guney, M., Onay, T.T., 2008. The analyses of the carbon cycle and the carbon budget after the land use change in the Karasu Forest, Adapazarı. Presented at the First Symposium on Environmental Issues, May 14-17, 2008, Kocaeli, Turkey.
- 2) Oral, V.H., Guney, M., Kucuker, M.A., Onay, T.T., Coptý, N.K., Mater, B., Yenigun, 2008. In-situ Soil Carbon Dioxide Flux Measurement From Forest Floor In Karasu Forests In Western Black Sea Region Of Turkey. Presented at the 12th IACMAG Conference, October 1-6, 2008, Goa-India.

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- 3) Oral, V.H., Guney, M., Kucuker, M.A., Onay, T.T., Copty, N.K., Mater, B., Yenigun, 2009. Determination of impact of the land use change in Karasu forest in terms of in-situ soil respiration. Presented at The International Environment Conference, May 18-24, 2009, Bishkek- Kyrgyzstan.
- 4) Kucuker, M.A., Oral, V.H., Guney, M., Onay, T.T., Copty, N.K., Mater, B., Yenigun, O. 2009. The impact of land use change on soil carbon in Karasu Forest. Presented at Ule2009 International Workshop on Urbanisation, Land Use, Land Degradation and Environment, September – 2009, Denizli, Turkey.
- 5) Kucuker, M.A., Onay, T.T., 2009. Biomass as a green energy source for Europe and Turkey. Presented at RENET International Renewable Energy Conference (IREC), November 19-20, 2009, İstanbul, Turkey.
- 6) Sarioglu, M.S., Kucuker, M.A., Copty, N.K., 2010. The Impact of Non-Fickian Dispersion due to High Concentration Gradients on Contaminant Transport, Presented at the IAHR International Groundwater Symposium, September 22-24, 2010, Valencia, Spain.
- 7) Sarioglu, M.S., Kucuker, M.A., Copty, N.K., 2011. Multispecies Hydrodynamic Dispersion under High Concentration Gradients, Presented at the ModelCare 2011 Conference, September 18-23, 2011, Leipzig, Germany.
- 8) Sarioglu, M.S., Kucuker, M.A., Copty, N.K., 2011. Generalized model for the hydrodynamic dispersion in the presence of sharp density interfaces, Presented at the American Geophysical Union Fall 2011 Meeting, December 5-9, 2011, San Fransisco, USA.
- 9) Kucuker, M.A., Kuchta, K., 2012. Biosorption with algae as a green technology for recovery of rare earth metals from e-waste. Presented at International Conference on Recycling and Reuse, June 4-6, 2012, İstanbul, Turkey.
- 10) Oldenburg, S., Kucuker, M.A., Westphal, L., Kuchta, K., 2012. Anaerobic Digestion of Grass Biomass. Presented at Fourth International Symposium on Energy from Biomass and Waste, November 12-15, 2012, Venice, Italy.
- 11) Kucuker, M.A., Kuchta, K., 2013. Biosorption of Neodymium (Nd) From Fe-Nd-B Magnets Using Microalgae. Presented at the 2nd Rare Earth Elements and Compounds Conference, September 11-12, 2013, Münster, Germany.
- 12) Kucuker, M.A., Westphal, L., Kuchta, K., 2013. Bottom Ash from the municipal solid waste incineration plants in Hamburg. Presented at Sardinia 2013 14th International Waste Management and Landfill Symposium, September 30 – October 4, 2013, Sardinia, Italy.
- 13) Wieczorek, N., Kuchta, K., Rechtenbach, D., Heerenklage, J., Küçüker, M.A., 2013. Thermophilic two-stage fermentation of microalgae for hydrogen and methane production. Presented at Sardinia 2013 14th International Waste Management and Landfill Symposium, September 30 – October 4, 2013, Sardinia, Italy.
- 14) Kucuker, M.A., Hina, H. Kuchta, K., 2014. Biosorption of Neodymium (Nd) From Fe-Nd-B Magnets. Presented at the Eurasia 2014 Conference, April 28-30, 2014, İstanbul, Turkey.
- 15) Kucuker, M.A., Kuchta, K., 2014. Recovery of Yttrium (Y) and Europium (Eu) From Lamps' Fluorescent Powders Through Biosorption. Presented at International Conference on Recycling and Reuse, June 4-6, 2014, İstanbul, Turkey.

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- 16) Kucuker, M.A., Wieczorek, N., Kuchta, K., 2014. Fermentative Hydrogen and Methane Production from Microalgae- Bacteria Floccs (MaB-Floccs). Presented at International Conference on Recycling and Reuse, June 4-6, 2014, Istanbul, Turkey.
- 17) Kucuker, M.A., Kuchta, K., 2014. Removal of Neodymium (Nd) From Fe-Nd-B Magnets Using Microalgae. Presented at the 4th International Conference on Industrial and Hazardous Waste Management, September 2-5, 2014, Crete, Greece.
- 18) Kucuker, M.A., Nadal, J-B., Kuchta, K., 2016. Comparison Between Batch and Continuous Reactor Systems for Biosorption of Neodymium (Nd) Using Microalgae. Presented at the Eurasia 2016 Conference, May 2-4, 2016, Istanbul, Turkey.
- 19) Kucuker, M.A. (Invited Speaker), 2016. Microalgae cultivation in Hamburg and biosorption of critical metals from aqueous solutions using microalgae. Presented at the Microalgal Technologies in Food:Water:Energy Nexus Conference, September 5, 2016, Istanbul, Turkey.
- 20) Kucuker, M.A., Vaquerano M., Kuchta, K., 2016. Comparison of The Hot Plate And Microwave Digestion Methods For Rare Earth Elements From Spent Fluorescent Lamp Powders. Presented at the 5th International Conference on Industrial and Hazardous Waste Management, September 27-30, 2016, Crete, Greece.
- 21) Kucuker, M.A. (Invited Speaker), 2016. Bio/Hydrometallurgical Recovery Of Rare Earth Elements (REEs) From Secondary Sources. Presented at the 5th International Conference on Industrial and Hazardous Waste Management, September 27-30, 2016, Crete, Greece.
- 22) Kucuker, M.A. (Invited Speaker), 2017. Biomining for Critical Metals Recovery from Secondary Sources. Presented at the 1th ReCreew – Spring School on Waste Electrical and Electronic Equipment, February 06-10, 2017, Hamburg, Germany.
- 23) Kucuker, M.A. (Invited Speaker), 2019. Wastewater Treatment Cakes Recovery in Ceramic Tile Production. Presented at the 10th National Conference on Solid Waste Management-UKAY 2019 , October 16-18, 2019, Çanakkale, Turkey.
- 24) Gökhan., E., Kucuker, M.A., 2020. Wastewater Treatment Cakes Recovery In Ceramic Tile Production. Presented at the International Conference On Energy, Environment And Storage Of Energy, ICEESEN 2020, 19-21 November 2020, Kayseri-Turkey.
- 25) Kucuker, M.A. (Invited Speaker), 2020. Waste to Energy. Presented at the International Sustainable Living Conference Sustainable Development Goals, 24-26 December 2020, Virtual Conference.

Poster presentations:

- 1) Kucuker, M.A., Onay, T.T., 2008. Chemical pre-treatment of waste water from the paper industry by means of bentonite. Presented at 11th Symposium on Industrial Pollution Control, June 11-13, 2008, İstanbul, Turkey.
- 2) Kucuker, M.A., Copty, N.K., Guney, M., Oral, V.H., Onay, T.T., Mater, B., Yenigun, O., 2010. Kriging-based estimation of the change in soil carbon stock in the coastal Black Sea region, Turkey. Presented at EGU 2010 General Assembly 2010, May 2-7, 2010, Vienna, Austria.
- 3) Kucuker, M.A., Kuchta, K., 2012. Comparison of Municipal Solid Waste Recycling Efficiency: Case Studies in Kazakhstan, Turkey and Germany. Presented at International Conference on Recycling and Reuse, June 4-6, 2012, Istanbul, Turkey.

Curriculum Vitae of Mehmet Ali Küçüker

- 4) Kucuker, M.A., Kuchta, K., 2012. Biosorption Technology for Recovery of Rare Earth Metals from E-Waste. Presented at the Rare Earth Elements and Compounds Conference, September 4-6, 2012, Münster, Germany.
- 5) Kucuker, M.A., Kuchta, K., 2012. Biotechnological Approach for Recovery of Rare Earth Elements and Precious Metals from E-Waste. Presented at the First German-Italian Waste Dialog, December 3-5, 2012, Hamburg, Germany.
- 6) Onay, T.T., Hot, E., Kucuker M.A., 2012. Biomass as a Source of Green Energy for Turkey, Presented at the 4th International Symposium on Energy & Environment: ACCESS, December 9-12, 2012, Mumbai, India.
- 7) Kucuker, M.A., Kuchta, K., 2013. Biosorption of Precious Metals From Municipal Solid Waste Incineration Bottom Ash. Presented at The Istanbul International Solid Waste, Water and Wastewater Congress (Istanbul3WCongress 2013), May 22-24, 2013, Istanbul, Turkey.
- 8) Kucuker, M.A., Kuchta, K., 2014. BIOREEs - Biotechnological Approach for Recovery of Rare Earth Elements and Precious Metals from E-Waste. Presented at the TuTech Workshop on Integrated Biotechnology and Process, December 15, 2014, Hamburg, Germany.
- 9) Kucuker, M.A., Kuchta, K., 2015. A Two Stage Combined Process For Recovery Of Neodymium (Nd) From Fe-Nd-B Harddisk Magnets. Presented at the TAKAG 2015 Conference & Young Researchers Forum, May 25-29, 2015, Izmir, Turkey.

Technical reports and articles:

- 1) Kucuker, M.A., Onay, T.T., 2007. Pre-treatment of waste water from paper industries by modified bentonite, Bensan Bentonite Industry, 2007, Istanbul.
- 2) Kucuker, M.A., Onay, T.T., Demirel, B., Yenigun O., 2009. TFF - Preparation of the Environment Department of the Football Association Euro 2016 Turkey Zone Application – İstanbul, 2009.
- 3) Kucuker, M.A., Onay, T.T., Yenigun O., 2010. KOTIYAK Project Report, Bursa, 2010.
- 4) Kucuker, M.A., Onay, T.T., Yenigun O., 2010. The evaluation of suitability of the Güngör landfill location, KKTC, Cyprus International University (CIU), 2010, Cyprus.
- 5) Kucuker, M.A., Onay, T.T., 2011. Asbestos Analyses Report on Stack Dust, Settled Dust and Ambient Air, ASMAS A.S., Istanbul, 2011.

Coaching students (as co-promoter):

- 1) Dooreman, R., 2013. Determination of optimal conditions for the biosorption of Neodymium from hard disks magnets using *Chlorella Vulgaris*, Master Thesis. TUHH - Hamburg University of Technology - Institute of Environmental Technology and Energy Economics, promoter: Kuchta, K.
- 2) Habib H., 2014. Evaluation of *Chlorella Vulgaris* performance for the biosorption of Nd from harddisk magnets, Project Work. TUHH - Hamburg University of Technology - Institute of Environmental Technology and Energy Economics, promoter: Kuchta, K.
- 3) Vaquerano M., 2016. Comparison of the Hot Plate and Microwave Digestion Methods for Rare Earth Elements from spent Fluorescent Lamp Powders, Bachelor Thesis. TUHH - Hamburg University of Technology - Institute of Environmental Technology and Energy Economics, promoter: Kuchta, K.

Curriculum Vitae of Mehmet Ali Küçüker

- 4) Nadal, J-B., 2016. REEs Recovery from Artificial Uranium Mining Solution Using Continuous Biosorption System, Master Thesis. TUHH - Hamburg University of Technology - Institute of Environmental Technology and Energy Economics, promoter: Kuchta, K.
- 5) Ervan, T., 2020. Testing of Nanocomposite Coatings on Glass Reactors for Reducing Adhesion of Microalga. Department of Environmental Engineering, Çanakkale Onsekiz Mart University, Advisor and promoter: Kucuker, M.A.
- 6) Gökhan, E., 2020. Environmental Impact of Wastewater Treatment Cakes Recovery in Ceramic Tile Production. Department of Environmental Engineering, Çanakkale Onsekiz Mart University, Advisor and promoter: Kucuker, M.A.
- 7) Özler, Ö., 2020. Investigation of Malodor Occurring in Çanakkale Central Coastal Line. Department of Environmental Engineering, Çanakkale Onsekiz Mart University, Advisor and promoter: Kucuker, M.A.

Invited reviewer for international Science Citation Index journals:

- Journal of Environmental Management
- Soil Use and Management
- Hydrometallurgy
- Bioresource Technology
- Frontiers in Sustainable Food Systems
- Waste Management

Courses and exercises:

- As a tutor
 - Urban Material Cycle (Hafen City University in Hamburg): 2012-2014
 - Waste Resources Management (Hamburg University of Technology): 2012-2015
- As a lecturer
 - Waste Resources Management (Hamburg University of Technology): 2015-2017
 - Energy, Sustainability and the Environment (Çanakkale Onsekiz Mart University): 2019 - 2020
 - Occupational Health and Safety (Çanakkale Onsekiz Mart University): 2019 - 2021
 - Urban Mining (Çanakkale Onsekiz Mart University): 2019 – 2020
 - Urban Development and Environ. (Çanakkale Onsekiz Mart University): 2019 - 2020
 - Project Management and Entrepreneurships (Çanakkale Onsekiz Mart University): 2019 – 2021
 - Unit Operation 1 (Çanakkale Onsekiz Mart University): 2019 – 2021
 - Unit Operation 1 – Lab. (Çanakkale Onsekiz Mart University): 2019 – 2021
 - Scientific Research Methods (Çanakkale Onsekiz Mart University): 2019 – 2020
 - Circular Cities (Çanakkale Onsekiz Mart University): 2019 – 2020
 - Circular Economy (Çanakkale Onsekiz Mart University): 2019 – 2020
 - Waste Resources Management (Çanakkale Onsekiz Mart University): 2019 – 2020
 - Project Writing and Academic Presentation Skills (Çanakkale Onsekiz Mart University): 2019 –2020