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Academic Research Assistant| Environmental Scientist| Impact of heavy metals on the environment

## PROFILE

- Over 8 years' research experience in the field of environmental process engineering, specializing in the impact of heavy metals on the environment and ways of reintroducing them back into the economic cycle
- PhD in environmental Engineering
- Proficient in MS Office
- Fluent in German and Farsi, Intermediate in Spanish

## WORK EXPERIENCE

### Relocation from Abroad

Jan. 2017-Nov. 2017

### Research Associate

2014-2017

Institute of Mineral and Waste Processing, CUT, Clausthal, Germany

- Developed and proposed new residual free recycling process for copper slag from the former copper slate smelter
- Utilized sorting, roasting, leaching with HCl, carbonate precipitation, precipitate complexation and solvent extraction of metal
- Delegated tasks and oversaw two research students.
- Conducted the experiments in the laboratory scale and wrote reports.
- Presented the final results of the project at a national environmental conference for approximately 70 of delegates

### Research Assistant

2010-2014

Institute of Mineral and Waste Processing, CUT, Clausthal, Germany

- Wrote the PhD thesis on investigation of the influence of the trace element load from Biogas slurry on the pollution of agricultural soils

### Student Research Assistant

2008-2010

Institute of Mineral and Waste Processing, CUT, Clausthal, Germany

- Developed process engineering steps for filter dust from electronic scrap recycling to generate high quality copper and precious metal concentrates
- Utilized number of different environmental trace separation techniques including the wet stab milling, sieving by 0.4 mm for separation of synthetic, magnetic and density separation and flotation

### Internship

summer 2007

Elektrocycling GmbH, Harlingerode, Germany

- Worked 12-hour shifts at the Dismantling Department separating spare parts and harmful substances/impurities such as batteries, capacitors, mercury-containing parts, liquids, etc.
- At Mechanical Treatment department: separated pure raw materials such as iron, aluminum, copper, and synthetics in a multi-stage shredding process utilizing techniques such as classification, magnetic and eddy current separation, as well as density separation, depending on the composition of materials and their grain size

### Library Organizer

2006-2008

Institute of Mineral and Waste Processing, CUT, Clausthal, Germany

Performed typical library duties such as classifications and organization of scientific books in the library of Institute of Mineral and Waste Processing

## EDUCATION

**PhD's degree in Environmental Engineering** 2015  
Clausthal University of Technology (CUT), Germany

Three-year doctoral scholarship by H. Wilhelm-Schaumann-Stiftung, Pinneberg, Germany  
PhD Thesis: Investigations on the Behavior of the Trace Elements Copper and Nickel in Biogas Slurry after Application to Agricultural areas.

**Master's degree (Dipl. Ing.) in Environmental Engineering** 2010  
Clausthal University of Technology (CUT), Germany

Specialty: Disposal Technology  
Master thesis: Investigations on the Fate and Behavior of Trace Elements in Biogas Slurry from Biogas Plants during Application to Agricultural Areas at H. Wilhelm Schaumann Company, Germany

## VOLUNTEER WORK

**Assistant** Jun. 2018-present  
Food bank Vancouver, BC

**File Clerk** Nov. 2017-Jan.2017  
CanSleep Services Inc., Coquitlam, BC

## PUBLICATIONS

- Gock, E.; Miganei, L.; Koch, L. (2018): German Patent No. DE10201600700A1. Retrieved from <https://worldwide.espacenet.com/publicationDetails/biblio?CC=DE&NR=102016007030A1&KC=A1&FT=D>. Application No= DE20161007030 20160608
- Miganei, L.; Gock, E.; Koch, L.; Achimovicova, M.; Zobel, H. und Kähler, J. (2017): Residue-free Processing of Slags from the Former Mansfeld Copper Slate Smelter. In: Journal of Cleaner Production, Vol. 164, 2017, P. 534-542
- Miganei, L.; Gock, E.; Koch, L.; Zobel, H. und Kähler, J. (2016): Rückstandsfreie Aufarbeitung von Schlacken der ehemaligen Mansfelder Kupferschiefer Verhüttung, Band. 3, Editors: K.-J. Thome-Kozmensky, TK-Verlag, Neuruppin, p. 341-357, ISBN: 978-3-944310-28-2
- Miganei, L.; Gock, E. (2016): Investigations on Trace Elements in Biogas Slurry on Agricultural Areas, 5th International Conference on Biological Chemical and Environmental Sciences, IICBE & IA-E Int'L Conference Proceedings, 24.-25.03.2016, London, International Institute of Engineers, 71-77, ISBN 978-93-84468-48-4
- Miganei, L.; Gock, E. (2016): Investigations on Trace Elements in Biogas Slurry on Agricultural Areas. In: Int'l Journal of Research in Chemical, Metallurgical and Civil Eng. (IJRCMCE), Vol. 3, Issue 1, 2016, p. 55-60
- Miganei, L. (2015): Untersuchungen zum Verhalten der Spurenelemente Kupfer und Nickel in Biogasgülle nach der Aufbringung auf landwirtschaftlichen Flächen. Dissertation. 1<sup>st</sup> edition, Sierke-Verlag, Göttingen
- Gock, E and Vogt, V. (2009): Entwicklungen in Abfallaufbereitung-Anhand von Beispielen-, Recycling und Rohstoffe, Band. 2, Editors: Thome-Kozmensky, K.-J. And Goldmann, D., TK-Verlag, p. 269-290, ISBN: 978-3-935317-40-5 (assistance with results of project thesis)