# Sabry M. Shaheen, PhD

Full Professor Geochemistry of Trace Elements

#### **Current Position:**

# Researcher (01-09-2018 – to date)

Laboratory of Soil- and Groundwater-Management, Institute of Foundation Engineering, Water- and Waste-Management School of Architecture and Civil Engineering University of Wuppertal Germany

### **Permanent Position:**

#### **Full Professor**

Department of Soil & Water Sciences Faculty of Agriculture University of Kafrelsheikh 33 516- Kafr El-Sheikh, EGYPT

#### **Previous Position(s):**

# Alexander von Humboldt Experienced Fellow (July 2016/March 2018)

Laboratory of Soil- and Groundwater-Management, Institute of Foundation Engineering, Water- and Waste-Management School of Architecture and Civil Engineering University of Wuppertal Germany

#### Expert and Project Manager (Feb. 2015- June 2016)

Laboratory accreditation projects
Higher Education Enhancement Projects Unit
Ministry of Higher Education and Scientific Research, Cairo, Egypt

### **Education and Academic Certificates:**

Doctor of Philosophy (PhD): Kafr El-Sheikh Faculty of Agriculture, Tanta University, EGYPT

Date: February 27, 2005

Concentrations: Soil pollution by Toxic elements and remediation techniques

Dissertation Title: Pedo-Chemical Studies on Some Egyptian Soils under Different Depositional

Environments in Relation to Their Heavy Metals Content, Pollution and

Remediation.

Master of Science (MSc): Kafr El-Sheikh Faculty of Agriculture, Tanta University, EGYPT

Date: November 30, 1999

**Concentrations**: Geochemistry of Trace Elements

**Thesis**: Some pedological and geochemical studies on some Egyptian soils.

Bachelor of Science (BSc): Kafr El-Sheikh Faculty of Agriculture, Tanta University, EGYPT

**Date:** July 30, 1995

**Concentrations**: Soil Sciences (Graduation Rate: Excellent with honor grade)

# Area of expertise:

- Soil chemistry
- Biogeochemistry of potentially toxic elements
- Chemical and phytoremediation of toxic elements contaminated soils
- Water treatments and pollution control
- Waste management
- Environmental risk assessment

# **Employment History:**

### Full Professor, May 26, 2015 – to date

Department of Soil & Water Sciences
Faculty of Agriculture, Kafrelsheikh University, EGYPT

# Associate Professor, May 24, 2010 – May 25, 2015

Department of Soil & Water Sciences Faculty of Agriculture, Kafrelsheikh University, EGYPT

### Assistant Professor, March 29, 2005 – May 23, 2010

Department of Soil & Water Sciences
Faculty of Agriculture, Kafrelsheikh University, EGYPT

### Assistant Lecturer, December 18, 1999 – March 28, 2005

Department of Soil & Water Sciences Kafrelsheikh Faculty of Agriculture, Tanta University, EGYPT

#### Demonstrator, November 15, 1995 – December 17, 1999

Department of Soil & Water Sciences Kafrelsheikh Faculty of Agriculture, Tanta University, EGYPT

### **Awarded Fellowships:**

- Alexander von Humboldt Fellowship (Experienced Researchers), University of Wuppertal, Laboratory of Soil- and Groundwater-Management, Germany from July 1, 2016 to March 31, 2018.
- Visiting Researcher, Laboratory of Soil- and Groundwater-Management, University of Wuppertal, Germany from August 12 to September 11, 2015.
- DAAD (Bilateral Exchange Program) Postdoctoral Fellowship at University of Wuppertal, Laboratory of Soil- and Groundwater-Management, Germany from July 1 to September 30, 2014.
- STDF-STF Postdoctoral Fellowship at University of Wuppertal, Laboratory of Soil- and Groundwater-Management, Germany from July 15 to November 15, 2013.
- DAAD (GERSS) Postdoctoral Fellowship at University of Wuppertal, Laboratory of Soil- and Groundwater-Management, Germany from May 15 to November 15, 2012.
- Partnership and Ownership Initiative (ParOwn) Postdoctoral Fellowship at NAGREF, ISMC (Greece) from 11/2008 to 5/2009.
- I.K.Y. Postdoctoral Fellowship at NAGREF, ISMC (Greece) from 11/2005 to 11/2006.

#### Awards:

- Abdul Hameed Shoman Award for Arab Researchers (2015)
- The Kingdom of Saudi Arabia Award for Environmental Management (2014)
- The State Incentive Award in Agricultural Sciences (2011)
- The University Incentive Award in Environmental Sciences (2010)
- Distinguished Academic Publishing Award 2007-2018, Kafrelsheikh University, Egypt

#### **Professional Activities**

- Teaching theoretical and practical courses for undergraduate and graduate students in Department of Soil & Water Sciences, Faculty of Agriculture, Kafrelsheikh University, since November, 1995 – Present.
- 2. Supervising research for graduate students (7 M.Sc. & 4 Ph.D. theses) in the field of remediation of toxic metal(loid)s contaminated soils and wastewater, waste management and chemistry of soil phosphorus, 2005 Present.
- 3. Consultant and Trainer on the requirements of ISO/IEC17025 for laboratory accreditation, 2009- present.
- 4. Trainer on the Pathways to higher education project, Egypt (Development of Thinking and Managerial Skills)

# **Editorships**

#### **Guest Editor:**

Frontiers in Chemistry (IF = 4.155)

http://www.frontiersin.org/Green and Environmental Chemistry/researchtopics/New Findings on the Use of Biosorbents and Technically-Based Sorbents to Control Soil and Water Pollution/7134.

### **Associate Editor:**

International Journal of Agricultural Research and Crop Sciences (IJARCS): <a href="https://actascientific.com/IJARCS-EB.php">https://actascientific.com/IJARCS-EB.php</a>

#### **Advisory Board Member**

Acta Scientific Agriculture <a href="https://www.actascientific.com/ASAG-EB.php">https://www.actascientific.com/ASAG-EB.php</a>

# **Editorial board:**

Archives of Agronomy and Soil Sciences (IF = 2.137):

http://www.tandfonline.com/action/journalInformation?show=editorialBoard&journalCode=gags20

Energy & Environment (IF = 0.302):

https://uk.sagepub.com/en-gb/afr/energy-environment/journal202462#editorial-board

#### Biochar:

https://www.springer.com/environment/environmental+engineering+and+physics/journal/42773?detailsPage=editorialBoard

#### Egyptian Journal of Soil Sciences:

http://ejss.journals.ekb.eg/

# Journal of Sustainable Agricultural Sciences:

http://jsas.journals.ekb.eg/

# **Invited keynote Speaker**

The GetTrop 2017 in China,

The BEEM 2018 in Hong Kong,

The APBC 2018 in China, and

The BEEM 2019 in Hong Kong

### Reviewer for many international journals

# **Coordination of international conferences:**

- Member in the organizing and scientific committee of the 12<sup>th</sup> International conference on soil science and plant analyses. June 2011, Crete Greece.
- Session Moderator in the 11<sup>th</sup> International conference on biogeochemistry of trace elements. July 2011, Florence Italy.

# **Professional Memberships:**

- Egyptian Soil Science Society.
- German Soil Science Society
- The Scientific Society of Environmental Protection, Faculty, Kafrelsheikh University, Egypt.

#### **Publications:**

During the period 2007-2019, Dr. Sabry Shaheen has published **72** papers in peer-reviewed impacted journals and **11** book chapters. In addition, Dr. Shaheen has published **58** abstract at conference proceeding books. Based on the citation of his publication, the Scopus h Index = **22**; Google Scholar h Index = **24**; Google scholar i10-index = **51** 

Full papers are available at my RG:

https://www.researchgate.net/profile/Sabry Shaheen?ev=hdr xpr

# Papers Published in ISI-Web of Science Listed Journals

#### 2019

- El-Naggar, A., **Shaheen, S.M.,** Hseu, Z., Wang, S-L., Ok, Y.S., J. Rinklebe. (2019). Release dynamics of As, Co, and Mo in a biochar treated soil under pre-definite redox conditions. Science of the Total Environment, doi.org/10.1016/j.scitotenv.2018.12.026.
- El-Naggar, A., Lee, S.S., Rinklebe, J., Farooq, M., Song, H., Sarmah, A.K., Zimmerman, A.R., Ahmad, M., **Shaheen, S.M.,** Y.-S. Ok. (2019). Biochar application to low fertility soils: A review of current status, and future prospects. Geoderma, 337: 536-554.
- **Shaheen, S.M.,** Abdelrazik, M., Elthoth, M., Elhabashy, N., Hamzah, A., Mohamed, R., Moghanm, F.S., Wang, J., Rinklebe, J. (2019). Potentially Toxic Elements in Saltmarsh Sediments and Common Reed (*Phragmites australis*) of Burullus Coastal Lagoon at North Nile Delta, Egypt: A Survey and Risk Assessment. Science of the Total Environment, 649: 1237-1249.
- **Shaheen, S.M.,** Niazi, N.K., Hassan, N.E.E., Bibi, I., Wang, H., Tsang, D.C., Ok, Y.S., Rinklebe, J. (2019). Woodbased biochar for removal of potentially toxic elements in water and wastewater: A critical review. International Materials Reviews, <a href="doi:10.1080/09506608.2018.1473096">doi:10.1080/09506608.2018.1473096</a>.
- Ghosh, S., Bakshi, M., Bhattacharyya, S., Biswas, J.K., Kumar, A., Ramanathan, A. L. Chaudhuri, P., **Shaheen, S.M.,** Rinklebe, J. (2019). Assessing the potential ecological risk of Co, Cr, Cu, Fe and Zn in the sediments of Hooghly-Matla estuarine system. Environmental Geochemistry and Health, <a href="doi:org/10.1007/s10653-018-0119-7">doi:org/10.1007/s10653-018-0119-7</a>.
- Bakshi, M., Ghosh, S., Ram, S., Sudarshan, M., Chakraborty, A., Biswas, J.K., **Shaheen, S.M.,** Niazi, N.K., Rinklebe, J., Chaudhuri P. (2019). Sediment quality, elemental bioaccumulation and antimicrobial properties of mangroves of Indian Sundarban. Environmental Geochemistry and Health, <a href="doi:10.1007/s10653-018-0145-5">doi: 10.1007/s10653-018-0145-5</a>.

- Antoniadis, V., **Shaheen, S.M.,** C.D. Tsadilas, Selim, M., Rinklebe, J. (2018). Zinc sorption by different soils as affected by selective removal of carbonates and hydrous oxides. Applied Geochemistry, 88: 49-58.
- Antoniadis, V., Zanni, A.A., Levizou, E., **Shaheen, S.M.,** Dimirkou, A., Bolan, N., Rinklebe, J. (2018). Modulation of hexavalent chromium toxicity on *Origanum vulgare* in an acidic soil amended with peat, lime, and zeolite. Chemosphere, 195: 291-300.
- Biswas, J.K., Banerjee, A., Rai, M.K., Rinklebe, J., **Shaheen, S.M.,** Santosh Kumar, S. (2018). Exploring potential applications of a novel extracellular polymeric substance synthesizing bacterium (Bacillus licheniformis) isolated from gut contents of earthworm (*Metaphire posthuma*) in environmental remediation. Biodegradation, 29(4): 323-337.
- Elbana, T.A., Magdi Selim, N. Akramai, A. Newman, **Shaheen, S.M.,** Rinklebe, J. (2018). Freundlich Sorption Parameters for Cadmium, Copper, Nickel, Lead, and Zinc for Different Soils: Influence of Kinetics. Geoderma, 324: 80-88.
- El-Naggar, A., **Shaheen, S.M.,** Ok, Y.S., Rinklebe, J., (2018). Biochar affects the dissolved and colloidal concentrations of Cd, Cu, Ni, and Zn and their phytoavailability and potential mobility in a mining soil under dynamic redox-conditions. Science of the Total Environment, 624: 1059-1071.
- Niazi, N.K., Bibi, I., Shahid, M., Ok, Y.S., **Shaheen, S.M.,** Rinklebe, J., Wang, H., Murtaza, B., Islam, E., Nawaz, M.F., Lüttgeb, A. (2018). Arsenic removal by Japanese oak wood biochar in aqueous solutions and well water: Investigating arsenic fate using integrated spectroscopic and microscopic techniques. Science of the Total Environment, 621: 1642-1651.

- Niazi, N.K., Bibi,I., Shahid, M., Ok, Y.S., Burtonc, E.D., Wang, H., **Shaheen, S.M.,** Rinklebe, J., Lüttge, A. (2018). Arsenic sorption to perilla leaf biochar in aqueous environments: An advanced spectroscopic and microscopic examination. Environmental Pollution, 232: 31-41.
- Qin, P., Wang, H., Yang, X., He, L., Müller, K., **Shaheen, S.M.,** Xu, S., Rinklebe, J., Tsang, D., Sik Ok, Y.S., Bolan, N., Song, Z., Che, L., Chen, X. (2018) Bamboo- and pig derived biochars reduce leaching losses of dibutyl phthalate, cadmium, and lead from co-contaminated soils. Chemosphere, 198: 450-459.
- **Shaheen, S.M.,** Ali, R.A., Abo Waly, M.E., Rabie, A.A., Edrees, N., Rinklebe, J. (2018). Assessing the potential mobilization of As, Cr, Mo, and Se in Egyptian lacustrine and calcareous soils using sequential extraction and biogeochemical microcosm techniques. Journal of Geochemical, 191: 28-42.
- **Shaheen, S.M.,** Antoniadis, V., Biswas, J.K., Wang, H., Ok, Y.S., Rinklebe J. (2018). Correction to: Biosolids application affects the competitive sorption and lability of cadmium, copper, nickel, lead, and zinc in fluvial and calcareous soils. Environmental Geochemistry and Health, 40(1): 561-562.
- **Shaheen, S.M.,** Tsadilas, C.D., Niazi, N.K., Hseu, Z-Y., Ok, Y.S., Selim, M., Rinklebe, J. (2018). Impact of biosolid application rates on competitive sorption and distribution coefficients of Cd, Cu, Ni, Pb, and Zn in an Alfisol and an Entisol. Process Safety and Environmental Protection, 115: 38-48.
- **Shaheen, S.M.,** Rinklebe, J. (2018). Vanadium in thirteen different soil profiles originating from Germany and Egypt: geochemical fractionation and potential mobilization. Applied Geochemistry, 88: 288-301.

- Antoniadis, V., Golia, E.E., **Shaheen, S.M.,** Rinklebe, J. Bioavailability and health risk assessment of potentially toxic elements in Thriassio Plain, near Athens, Greece. Environmental Geochemistry and Health, 39: 319-330.
- Antoniadis, V., Levizou, E., **Shaheen, S.M.,** Ok, Y.S., Sebastian, A., Baum, C., Prasad, M.N.V., Wenzel, W.W., Rinklebe, J. (2017). Trace elements in the soil-plant interface: Phytoavailability, translocation, and phytoremediation—A Review. Earth-Science Reviews 171:621-645.
- Antoniadis, V., **Shaheen, S. M.,** Boersch, J., Frohne, T., Du Laing, G.,Rinklebe, J. Bioavailability and risk assessment of potentially toxic elements in garden edible vegetables and soils around a highly contaminated former mining area in Germany. Journal of Environmental Management, 186: 192-200
- Biswas, J.K., Mondal, M.; Rinklebe, J., Sarkar, S.K., Chaudhuri, P., Rai, M., **Shaheen, S.M.**, Song, H., and M. Rizwan Multi-metal resistance and plant growth promotion potential of a wastewater bacterium Pseudomonas aeruginosa and its synergistic benefits. Environmental Geochemistry and Health, 39 (6):1583-1893.
- Biswasa, J.K., **Shaheen, S.M.,** Rinklebe, J., Sarkar, S.K., (2017). Impact of raking and bioturbation-mediated ecological manipulation on sediment-water phosphorus diagenesis: A mesocosm study supported with radioactive signature. Environmental Geochemistry and Health, 39 (6):1563-1581
- Rinklebe, J., **Shaheen, S.M.,** (2017). Geochemical distribution of Co, Cu, Ni, and Zn in soil profiles of Fluvisols, Luvisols, Gleysols, and Calcisols originating from Germany and Egypt. Geoderma, 307:122-138.
- Rinklebe, J., **Shaheen, S.M.,** (2017). Redox Chemistry of Nickel in Soils and Sediments: A Review Chemosphere, 179:265-278
- **Shaheen, S.M.,** Rinklebe, J. (2017). Sugar beet factory lime affects the mobilization of Cd, Co, Cr, Cu, Mo, Ni, Pb, and Zn under dynamic redox conditions in a contaminated floodplain soil Journal of Environmental Management, 186: 253-260
- **Shaheen, S.M.,** Antoniadis, V., Biswas, J.K., Wang, H., Ok, Y.S., Rinklebe, J. (2017). Biosolids application affects the competitive sorption and lability of cadmium, copper, nickel, lead, and zinc in fluvial and calcareous soils. Environmental Geochemistry and Health, 39 (6):1365-1379.
- Shaheen, S.M., Frohne, T., White, J., DeLaune, R., Rinklebe, J. (2017). Redox-induced mobilization of copper, selenium, and zinc in deltaic soils originating from Mississippi (U.S.A.) and Nile (Egypt) River Deltas: A better understanding of biogeochemical processes for safe environmental management. Journal of Environmental Management, 186: 131-140
- **Shaheen, SM.,** Balbaa, A.A., Khatab, A.M., Rinklebe, J., (2017). Compost and sulfur affect the mobilization and phytoavailability of Cd and Ni to sorghum and barnyard grass in a spiked fluvial soil Environmental Geochemistry and Health, 39 (6):1305-1324
- **Shaheen, SM.,** E.E. Kwon, J.K. Biswas, F.M.G. Tack, Y.S. Ok, Rinklebe, J., (2017). Arsenic, chromium, molybdenum, and selenium: geochemical fractions and potential mobilization in riverine soil profiles originating from Germany and Egypt. Chemosphere, 180:553-564
- **Shaheen, SM.,** M. Shams, M. Khalifa, M.A. El-Daly, J. (2017). Rinklebe Various soil amendments and wastes affect the (im)mobilization and phytoavailability of potentially toxic elements in a sewage effluent irrigated sandy soil. Ecotoxicology Environmental Safety, 142: 375-387

- Derbalah, A.S. Ismail, A.A., **Shaheen, S.M.,** (2017). The presence of organophosphorus pesticides in drainage water and its remediation technologies. Environmental Engineering Management Journal 15: 1777-1787
- Rinklebe, J., **Shaheen S.M.,** Frohne, T. (2016). Amendment of biochar reduces the release of toxic elements under dynamic redox conditions in a contaminated floodplain soil. *Chemosphere*, 142:41-47.
- Rinklebe, J., **Shaheen S.M.,** Yu, K. (2016). Release of As, Ba, Cd, Cu, Pb, and Sr under pre-definite redox conditions in different rice paddy soils originates from U.S. and Asia. *Geoderma* 270: 21-32
- Rinklebe, J., **Shaheen, S.M.,** Schröter, F., Rennert, T. (2016). Exploiting biogeochemical and spectroscopic techniques to assess the geochemical distribution and release dynamics of chromium and lead in a contaminated floodplain soil. *Chemosphere* 150: 390-397
- **Shaheen, S.M.,** M. S. Shams, S. M. Ibrahim, F. Elbehiry, H. El Basiuony (2016). Spatial distribution and mobilization of heavy metals in different wetland soils and sediments in north of the Nile Delta as affected by wetting and drying conditions. Merit Research Journal of Agricultural Science & Soil Sciences 42: 33-50.
- **Shaheen, S.M.,** Rinklebe, J., Frohne, T., White, J., DeLaune, R. (2016). Redox effects on release kinetics of arsenic, cadmium, cobalt, and vanadium in Wax Lake Deltaic freshwater marsh soils *Chemosphere* 150: 740-748

- Derbalah, A.S. Ismail, A.A., **Shaheen, S.M.** (2015). Monitoring and remediation technologies of organochlorine pesticides in drainage water. *Polish Journal of Chemical Technology*, 17 (1): 115-122.
- Rinklebe, J., **Shaheen, S.M.** (2015). Miscellaneous additives can enhance plant uptake and affect geochemical fractions of copper in a heavily polluted riparian grassland soil. *Ecotoxicology and Environmental Safety*, 119: 58-65
- **Shaheen, S.M.,** Eissa, F., Ghanem, G., Gamal El-Din, H., Al-Anany, F. (2015). Metal ion removal from industrial wastewaters by sorption on activated carbon, cement kiln dust, and sawdust. *Water Environment Research*, 87 (6): 506-515.
- **Shaheen, S.M.,** Rinklebe, J. (2015). Impact of emerging and low cost alternative amendments on the (im)mobilization and phytoavailability of Cd and Pb in a contaminated floodplain soil. *Ecological Engineering*, 74: 319-326
- **Shaheen, S.M.,** Rinklebe, J. (2015). Phytoextraction of potentially toxic elements from a contaminated floodplain soil using Indian mustered, rapeseed, and sun flower. *Environmental Geochemistry and Health,* 37(6):953-967
- **Shaheen, S.M.,** Rinklebe, J., Selim, H.M. (2015). Impact of various amendments on the bioavailability and immobilization of Ni and Zn in a contaminated floodplain soil. *International Journal of Environmental Science and Technology*, 12 (9): 2765-2776.
- **Shaheen, S.M.,** Rinklebe, J., Tsadilas, C.D., (2015). Fractionation and mobility of Cd, Cu, Ni, Pb and Zn in floodplain soils from Egypt, Germany and Greece. *Eurasian Soil Sciences*, 48 (12): 1317-1328.
- **Shaheen, S.M.,** Tsadilas, C.D., Rinklebe, J. (2015). Immobilization of soil copper using organic and inorganic amendments. *Journal of Plant Nutrition & Soil Sciences*, 178 (1): 112-117.
- **Shaheen, S.M.,** Tsadilas, C.D., Rupp, H., Rinklebe, J., Meissner, R. (2015). Distribution coefficients of cadmium and zinc in different soil types in a mono-metal and competitive sorption system. *Journal of Plant Nutrition & Soil Sciences*, 178 (4): 671-681

- Derbalah, A.S., Ismail, A.A., Amany Hamza, **Shaheen, S.M.** (2014). Monitoring and Remediation of Organochlorine Residues in Water. *Water Environment Research*, 86 (7): 584-593.
- Rinklebe, J., **Shaheen, S.M.** (2014). Assessing the mobilization of cadmium, lead, and nickel using a seven-step sequential extraction technique in contaminated floodplain soil profiles along the Central Elbe River, Germany. *Water Air & Soil Pollution*, 225 (8):2039
- **Shaheen S.M.,** Rinklebe, J., Frohne, T., White, J., DeLaune, R. (2014). Biogeochemical factors governing Co, Ni, Se, and V dynamics in periodically flooded Egyptian north Nile delta rice soils. *Soil Science Society of America Journal*, 78 (3): 1065-1078.
- **Shaheen, S.M.,** Hooda., P.S., Tsadilas, C.D. (2014). Opportunities and challenges in the use of coal fly ash for soil improvements a review. *Journal of Environmental Management*, 145, 249-267

- **Shaheen, S.M.,** Rinklebe, J. (2014). Geochemical fractions of chromium, copper, and zinc and their vertical distribution in soil profiles along the Central Elbe River, Germany. *Geoderma*, 228–229: 142-159.
- **Shaheen, S.M.,** Rinklebe, J., Rupp, H., Meissner, R. (2014). Lysimeter trials to assess the impact of different flood-dry-cycles on the dynamics of pore water concentrations of As, Cr, Mo, and V in a contaminated floodplain soil. *Geoderma*, 228-229: 5-13
- **Shaheen, S.M.,** Rinklebe, J., Rupp, H., Meissner, R. (2014). Temporal dynamics of pore water concentrations of Cd, Co, Cu, Ni, and Zn and their controlling factor in a contaminated floodplain soil using undisturbed groundwater lysimeter. *Environmental Pollution*, 191: 223–231.
- **Shaheen, S.M.,** Shams, M.S., Ibrahim, S.M., Elbehiry, F., Antoniadis, V., Hooda, P. (2014). Stabilization of biosolids by using various by-products: Impact on soil properties, biomass production, and bioavailability of copper and zinc. *Water Air & Soil Pollution*, 225 (7): 2014
- Tsadilas, C.D., Samaras, V., Evangelou, E., **Shaheen, S.M.** (2014). Influence of fly ash and sewage sludge application on wheat biomass production, nutrients availability, and soil properties. *International Journal of Coal Science & Technology*, 1 (2): 221-226.

- Derbalah, A.S., Ismail, A.A., **Shaheen, S.M.** (2013). Monitoring of organophosphorus pesticides and remediation technologies of the frequently detected compound (chlorpyrifos) in drinking water. *Polish Journal of Chemical Technology*, 15(3): 25-34
- **Shaheen, S.M.,** Eissa, F., Ghanem, G., Gamal El-Din, H., Al-Anany, F. (2013). Heavy metals removal from aqueous solutions and wastewaters by using various byproducts. *Journal of Environmental Management*, 128: 514-521.
- **Shaheen, S.M.**, Tsadilas, C.D. (2013). Phosphorus sorption and availability to canola grown on an Alfisol amended with various soil amendments. *Communication in Soil Science and Plant Analyses*, 44 (1-4): 89-103.
- **Shaheen, S.M.**, Tsadilas, C.D. (2013). Utilization of biosolids in production of bioenergy crops. I: Impact on canola biomass, soil properties and nutrient availability. *Communication in Soil Science and Plant Analyses*, 44 (1-4): 243-258.
- **Shaheen, S.M.,** Tsadilas, C.D., Rinklebe, J. (2013). A review of the distribution coefficient of trace elements in soils: Influence of sorption system, element characteristics, and soil colloidal properties. *Advances in Colloid and Interface Sciences*, 201-202: 43-56.
- Tsadilas, C.D., **Shaheen, S.M.** (2013). Utilization of biosolids in production of bioenergy crops. II: Impact of application rate on bioavailability and uptake of heavy metals by canola. *Communication in Soil Science and Plant Analyses*, 44 (1-4): 259-274.

#### 2012

- **Shaheen, S.M**, Derbalah, A.S., Moghanm, F.S. (2012). Removal of Heavy Metals from Aqueous Solution by Zeolite in Competitive Sorption System. *International Journal of Environmental Sciences and Development*, 3 (4): 362-367.
- **Shaheen, S.M.,** Shams, M.S., Elbehiry, F., Ibrahim, S.M. (2013). Influence of stabilized biosolids application on soil properties and availability of phosphorus, copper and zinc. *Applied and Environmental Soil Sciences*. doi:10.1155/2012/817158

#### 2010

- **Shaheen, S. M**. and C. D. Tsadilas (2010). Sorption of cadmium and lead by acidic Alfisols as influenced by fly ash and sewage sludge application. *Pedosphere*, 20 (4): 436-445.
- Tsadilas, C.D., **Shaheen, S.M.** (2010). Distribution of total and AB-DTPA-extractable soil vanadium from Greece and Egypt and their correlation with soil properties. *Soil Science*, 175 (11): 535-543

- **Shaheen, S. M.** (2009). Sorption and lability of cadmium and lead in different soils from Egypt and Greece. *Geoderma.* 153: 61-68.
- **Shaheen, S.M.**; Tsadilas, C.D., Eskridge, K. (2009). Effect of common ions on phosphorus sorption and lability in Greek Alfisols with different pH. *Soil Science*, 174: 21-26.

- **Shaheen, S.M.**, Tsadilas, C.D. (2009). Concentration of lead in soils and some vegetable plants in north Nile Delta as affected by soil type and irrigation water. *Communication in Soil Science and Plant Analyses,* 40: 289-306.
- **Shaheen, S.M.**, Tsadilas, C.D., Mitsibonas, Th., Tzouvalekas, M. (2009). Distribution coefficient of Copper in different soils from Egypt and Greece. *Communication in Soil Science and Plant Analyses*, 40: 121-133.
- Tsadilas, C.D., **Shaheen, S.M**., Gizas, D., Samaras, V., Hu, Z. (2009). Influence of fly ash application on Copper and Zinc sorption by acidic soil amended with biosolids. *Communication in Soil Science and Plant Analyses*, 40:168-179.

**Shaheen, S.M.,** Tsadilas, C.D., Stamatiades, S. (2007). Inorganic phosphorus forms in some Entisol and Aridisol of Egypt. *Geoderma* (142): 217-225.

# Monographs:

- Shaheen, S.M., Ali El-Naggar, Jianxu Wang, Noha E.E. Hassan, Nabeel Khan Niazi, Hailong Wang, Daniel C. W. Tsang, Yong Sik Ok, Nanthi Bolan, Jörg Rinklebe (2019). Biochar as an (im)mobilizing agent for the potentially toxic elements in contaminated soils. In: Ok, Y.S., Tsang, D., et al. "Biochar from Biomass and Waste". Elsevier. New York City, New York, United States. Chapter 14; PP 256-274. <a href="https://www.elsevier.com/books/biochar-from-biomass-and-waste/ok/978-0-12-811729-3">https://www.elsevier.com/books/biochar-from-biomass-and-waste/ok/978-0-12-811729-3</a>
- Shaheen, S.M., Antić-Mladenović, S., Wang, S-L., Niazi, N.K., Tsadilas, C.D., Ok, Y.S., Rinklebe, J. (2019). Nickel mobilization/immobilization and phytoavailability in soils as affected by organic and inorganic amendments. In: Tsadilas C.D., Rinklebe J., and H.M. Selim (Eds). "Nickel in Soils and Plants: CRC Press; Taylor & Francis Group, New York, USA. Chapter 12; PP 265-292. <a href="https://www.crcpress.com/Nickel-in-Soils-and-Plants/Tsadilas-Rinklebe-Selim/p/book/9781498774604">https://www.crcpress.com/Nickel-in-Soils-and-Plants/Tsadilas-Rinklebe-Selim/p/book/9781498774604</a>
- El-Naggar, A., Rajapaksha, A.U., **Shaheen, S.M.**, Rinklebe, J., Ok, Y.S. (2019). Potential of biochar for Nickel mobilization/immobilization and phytoavailability in soils as affected by organic and inorganic amendments. In: Tsadilas C.D., Rinklebe J., and H.M. Selim (Eds). "Nickel in Soils and Plants: CRC Press; Taylor & Francis Group, New York, USA. Chapter 12; PP 293-318. <a href="https://www.crcpress.com/Nickel-in-Soils-and-Plants/Tsadilas-Rinklebe-Selim/p/book/9781498774604">https://www.crcpress.com/Nickel-in-Soils-and-Plants/Tsadilas-Rinklebe-Selim/p/book/9781498774604</a>
- Shaheen, S.M., Niazi, N.K., Ok, Y.S., Rinklebe, J. (2019). Biochar as an immobilizing/mobilizing agent for potentially toxic elements in contaminated soils. In Ok, Y.S., Bolan, N., Novak, J., and D. Tsang (Eds). "Biochar from Biomass": El Sevier; Amsterdam, Netherlands. <a href="https://www.elsevier.com/books/biochar-from-biomass-and-waste/ok/978-0-12-811729-3">https://www.elsevier.com/books/biochar-from-biomass-and-waste/ok/978-0-12-811729-3</a>
- Javed, M.B., Shaheen, S.M., Niazi, N.K., Bibi, I., Shahid, M., Javed, M.T., Noha E. Hassan., Rinklebe, J., Mehmood, T. (2018). Biogeochemical behaviour of arsenic in biochar-amended soils. In: Rakshit et al., (Eds). Soil Amendments for Sustainability: Challenges and Perspectives. CRC Press; Taylor & Francis Group, Broken Sound Parkway NW, Suite 300.Boca Raton, FL 33487, New York, USA. Chapter 7; PP 87-109. <a href="https://www.routledge.com/Soil-Amendments-for-Sustainability-Challenges-and-Perspectives/Rakshit-Sarkar-Abhilash/p/book/9780815370772">https://www.routledge.com/Soil-Amendments-for-Sustainability-Challenges-and-Perspectives/Rakshit-Sarkar-Abhilash/p/book/9780815370772</a>
- Shaheen, S.M., Tsadilas, C.D., Rinklebe, J., Ok, Y.S. (2016). Potential mobility, bioavailability, and plant uptake of toxic elements in temporary flooded soils. In: Rinklebe et al. (Eds). "Trace elements in waterlogged soils and sediments: CRC Press; Taylor & Francis Group, New York, USA. Chapter 13; PP 287-312. <a href="https://engineering.crcpress.com/Trace-Elements-in-Waterlogged-Soils-and-Sediments/Rinklebe-Knox-Paller/p/book/9781482240511">https://engineering.crcpress.com/Trace-Elements-in-Waterlogged-Soils-and-Sediments/Rinklebe-Knox-Paller/p/book/9781482240511</a>
- Shaheen, S. M., Tsadilas, C.D. (2015). Influence of phosphates on fractionation, mobility, and bioavailability of soil metal(loid)s. In: Selim, H.M. (Ed). Phosphate in Soils: Interaction with Micronutrients, Radionuclides and Heavy Metals. CRC Press; Taylor & Francis Group, New York, USA. Chapter 7; PP 169-201. <a href="https://engineering.crcpress.com/Phosphate-in-Soils-Interaction-with-Micronutrients-Radionuclides-and-Heavy/Selim/p/book/9781482236798">https://engineering.crcpress.com/Phosphate-in-Soils-Interaction-with-Micronutrients-Radionuclides-and-Heavy/Selim/p/book/9781482236798</a>

- Shaheen, S. M., Rinklebe, J. (2015). Influence of common ions on sorption and mobility of soil phosphorus. In: Selim, H.M. (Ed). Phosphate in Soils: Interaction with Micronutrients, Radionuclides and Heavy Metals. CRC Press; Taylor & Francis Group, New York, USA. Chapter 12; PP 319-341. <a href="https://engineering.crcpress.com/Phosphate-in-Soils-Interaction-with-Micronutrients-Radionuclides-and-Heavy/Selim/p/book/9781482236798">https://engineering.crcpress.com/Phosphate-in-Soils-Interaction-with-Micronutrients-Radionuclides-and-Heavy/Selim/p/book/9781482236798</a>
- Igalavithana, A.D., **Shaheen, S.M.,** Park, J.N., Ok, Y.S. (2015). Potentially toxic element contamination and its impact on soil biological quality in urban agriculture A critical review. In: Irena Sherameti and Ajit Varma (Eds.). Heavy Metal Contamination of Soils: Monitoring and Remediation. Springer Science + Business Media Dordrecht, Netherlands. Chapter 4; PP 81-101. <a href="http://link.springer.com/book/10.1007/978-3-319-14526-6">http://link.springer.com/book/10.1007/978-3-319-14526-6</a>
- Shaheen, S. M., Abo-Waly, M.E., Ali, R.A. (2013). Classification, Characterization and Management of Some Agricultural Soils in the North of Egypt. In: S. A. Shahid et al. (eds.), Developments in Soil Classification, Land Use Planning and Policy Implications: Innovative Thinking of Soil Inventory for Land Use Planning and Management of Land Resources. Springer Science + Business Media Dordrecht, Netherlands, pp 417-447. <a href="http://www.springer.com/us/book/9789400753310">http://www.springer.com/us/book/9789400753310</a>