Yong Sik Ok, Full Professor and Director
Korea Biochar Research Center
Division of Environmental Science and Ecological Engineering
Korea University, Seoul 02841, Republic of Korea
E-mail: yongsikok@korea.ac.kr
https://koreauniv.pure.elsevier.com/en/persons/yong-sik-ok-2

Dr. Yong Sik Ok (2018 Web of Science Highly Cited Researcher) is a Full Professor in the Division of Environmental Science and Ecological Engineering, Korea University, Seoul, Korea. He also served a number of positions worldwide including Honorary Professor at the University of Queensland, Australia, Visiting Professor at the Tsinghua University, China, Adjunct Professor at the University of Wuppertal, Germany and Guest Professor at the Ghent University Global Campus, Ghent University, Belgium. Prof. Ok held Visiting Professorships in the Department of Renewable Resources (University of Alberta), in the Faculty of Bioscience Engineering (Ghent University), in the Department of Civil and Environmental Engineering (Hong Kong Polytechnic University) and in the Department of Chemical and Biomolecular Engineering (National University of Singapore).

Prof. Ok's academic background covers waste management, bioavailability of emerging contaminants, and bioenergy and value-added products such as biochar. Prof. Ok also has experience in fundamental soil science and remediation of various contaminants in soils and sediments. Together with graduate students and colleagues, Prof. Ok has published over 600 research papers, 38 of which were ranked as Web of Science ESI top papers (34 nominated as "Highly Cited Papers" and 4 nominated as "Hot Paper").

Prof. Ok maintains a worldwide professional network through his service as a Co-Editor-in-Cheif for Critical Reviews in Environmental Science and Technology, and Associate Editor for Environmental Pollution and Bioresource Technology, and as a Member of the Editorial Boards of Chemosphere, Journal of Analytical and Applied Pyrolysis and several other top journals in the field. Prof. Ok is the founding chair and organizer of many internationally leading conferences, such as The 20th International Conference on Heavy Metals in the Environment (ICHMET 2020, Korea) and The 9th International Conference on Geochemistry in the Tropics & Sub-Tropics (GEOTROP 2019, Australia).

Professional Experience

01/2018 - Present	Honorary Professor, The University of Queensland, Australia
09/2017 - Present	Full Professor, Division of Environmental Science and Ecological Engineering, Korea University, Seoul, Korea
07/2016 - Present	Guest Professor, Ghent University Global Campus, Belgium
03/2016 - Present	Adjunct Professor, University of Wuppertal, Germany
12/2016 - 02/2017	Academic Visitor, Department of Chemical & Biomolecular Engineering, National University of Singapore, Singapore
06/2015 - 07/2015	Visiting Scholar, Department of Applied Analytical and Physical Chemistry, Ghent University, Belgium
12/2014 - 02/2015	Visiting Professor, Department of Civil and Environmental Engineering, Hong Kong Polytechnic University, Hong Kong
06/2013 - 06/2014	Visiting Professor, Department of Renewable Resources, University of Alberta, Canada
05/2013 - 08/2017	Guest Professor, College of Quality and Safety Engineering, China Jiliang University, China
01/2011 - Present	Director, Korea Biochar Research Center, Republic of Korea
03/2007 - 08/2017	Full Professor, School of Natural Resources and Environmental Science, Kangwon National University, Korea
03/2006 - 02/2007	Research Associate, Department of Renewable Resources, University of Alberta, Canada

Editorship

Co-Editor, *Critical Reviews in Environmental Science and Technology* (Impact Factor: 7.683) (JCR Top 2.5% (Q1), Environmental Sciences: 6/241) (http://www.tandfonline.com/toc/best20/current)

Associate Editor, *Environmental Pollution* (2016-present) (Impact Factor: 4.358) (JCR Top 20% (Q1), Environmental Sciences: 39/241) (http://www.journals.elsevier.com/environmental-pollution/)

Editorial Board Member, *Chemosphere* (2016-present) (Impact Factor: 4.427) (JCR Top 20% (Q1), Environmental Sciences: 14/80) (http://www.journals.elsevier.com/chemosphere/)

Editorial Advisory Board Member, *Journal of Analytical and Applied Pyrolysis* (2017-present) (Impact Factor: 3.468) (JCR Top 15% (Q1), Spectroscopy: 5/42) (https://www.journals.elsevier.com/journal-of-analytical-and-applied-pyrolysis)

Editorial Board Member, *Environmental Geochemistry and Health* (2013-present) (IF 2.994) (JCR Top 15% (Q1), Water Resources: 14/90) (http://link.springer.com/journal/10653)

Subject Editor, *Journal of Soils and Sediments* (2013-present) (Impact Factor: 2.627) (JCR top (Q2), Soil Science: 11/34) (http://link.springer.com/journal/11368)

Editorial Board Member, *Chemical Speciation and Bioavailability* (2015-present) (Impact Factor: 1.362) (JCR (Q4), Environmental Sciences: 167/241) (http://www.tandfonline.com/toc/tcsb20/current)

Editorship (Past)

Associate Editor and Editorial Board Member, *Critical Reviews in Environmental Science and Technology* (2016-2018) (Impact Factor: 7.683) (JCR Top 2.5% (Q1), Environmental Sciences: 6/241) (http://www.tandfonline.com/toc/best20/current)

Editorial Board Member, *Applied Biological Chemistry* (2016-2017) (Impact Factor: 1.362) (JCR (Q3), Food Science and technology: 80/133) (http://link.springer.com/journal/13765)

Associate Editor, *Canadian Journal of Soil Science* (2013-2017) (Impact Factor: 2.861) (JCR (Q3), Soil Science: 26/34) (http://www.nrcresearchpress.com/journal/cjss)

Guest Editor

Guest Editor, *Journal of Cleaner Production* (Biowaste Valorization for Biofuel, Chemical, and Biochar Production) (IF 5.651) (JCR Top 10% (Q1), Environmental Sciences: 21/241)

Guest Editor, *Bioresource Technology* (Advance Biological Treatment Technologies for Sustainable Waste Management) (Volume 168) (Impact Factor: 5.807) (JCR Top 10% (Q1), Agricultural Engineering: 1/14)http://www.sciencedirect.com/science/journal/09608524/168)

Guest Editor, *Journal of Hazardous Materials* (Nanomaterials in the Environment: Recent Advances in Metrology, Applications, and Fate & Transport Assessment) (Volume 322, Part A) (Impact Factor: 6.434) (JCR Top 5% (Q1), Engineering, Civil: 1/125) (http://www.sciencedirect.com/science/journal/03043894/322/part/PA)

Guest Editor, *Science of the Total Environment* (Biowaste to Biochar: Emerging Applications in Energy and Environmental Research) (Impact Factor: 4.610) (JCR Top 15% (Q1), Environmental Sciences: 27/241)

Guest Editor, *Chemosphere* (Biochars Multifunctional Role as a Novel Technology in the Agricultural, Environmental, and Industrial Sectors) (Volume 142) (Impact Factor: 4.427) (JCR Top 15% (Q1), Environmental Sciences: 34/241) (http://www.sciencedirect.com/science/journal/00456535/142)

Guest Editor, *Chemosphere* (Thermodynamics and Kinetics of Emerging Contaminants in the Environment) (Volume 150) (Impact Factor: 4.427) (JCR Top 15% (Q1), Environmental Sciences: 34/241) (http://www.sciencedirect.com/science/journal/00456535/vsi/10Q6MBTPWM6)

Guest Editor, *Plant and Soil* (Biochar and the Plant-Soil Interface) (Volume 395, Issue 1-2) (Impact Factor: 3.306) (JCR Top 15% (Q1), Soil Science: 6/34) (http://link.springer.com/journal/11104/395/1/page/1)

Guest Editor, *Geoderma* (Integrated Management Strategies for Arsenic and Cadmium in Rice Paddy Environments) (Volume 270) (Impact Factor: 3.740) (JCR Top 15% (Q1), Soil Science: 5/34) (http://www.sciencedirect.com/science/journal/00167061/270)

Lead Guest Editor, *Environmental Geochemistry and Health* (Special Issue: Contaminated Land, Ecological Assessment and Remediation-CLEAR 2014) (Volume 37, Issue 6) (IF 2.994) (JCR Top 15% (Q1), Water Resources: 14/90) http://link.springer.com/journal/10653/37/6/page/1)

Guest Editor, *Environmental Geochemistry and Health* (Persistent Toxic Substances (PTSs) in Agroecosystems) (IF 2.994) (JCR Top 15% (Q1), Water Resources: 14/90)

Guest Editor, *Journal of Environmental Management* (Biogeochemistry of Trace Elements in the Environment) (Volume 186, Part 2) (Impact Factor: 4.005) (JCR (Q2), Environmental Sciences: 47/241) (http://www.sciencedirect.com/science/journal/03014797/186/part/P2)

Guest Editor, *Environmental Science and Pollution Research* (Selected Papers from the 2nd Contaminated Land, Ecological Assessment and Remediation (CLEAR 2014) Conference: Environmental Pollution and Remediation) (Volume 23, Issue 2) (Impact Factor: 2.800) (JCR (Q2), Environmental Sciences: 82/241) (http://link.springer.com/journal/11356/23/2/page/1)

Guest Editor, *Environmental Science and Pollution Research* (Biological Waste as Resource, with a Focus on Food Waste) (Volume 23, Issue 8) (Impact Factor: 2.800) (JCR (Q2), Environmental Sciences: 82/241) (http://link.springer.com/journal/11356/23/8/page/1)

Guest Editor, *Journal of Soils and Sediments* (Biochar for a Sustainable Environment) (Impact Factor: 2.627) (JCR (Q2), Soil Science: 11/34) (http://link.springer.com/journal/11356/23/8/page/1)

Guest Editor, *Process Safety and Environmental Protection* (Special Issue: Biowaste for Energy Recovery and Environmental Remediation) (Impact Factor: 3.441) (JCR (Q1), Engineering, Chemical: 27/137) (https://www.journals.elsevier.com/process-safety-and-environmental-protection/call-for-papers/special-issue-biowaste-for-energy-recovery-and-environmental)

Guest Editor, *Journal of Chemistry* (Occurrence and Remediation of Pollutants in the Environment) (Volume 2015) (Impact Factor: 1.726) (JCR (Q3), Chemistry, Multidisciplinary: 97/171) (http://www.hindawi.com/journals/jchem/si/912871/)

Guest Editor, *Journal of Mountain Science* (2nd International Conference on Contaminate Land, Ecological Assessment and Remediation) (Impact Factor: 1.135) (JCR (Q4), Environmental Sciences: 188/241) (http://www.clear2014.org/)

Guest Editor, *Biodegradation* (Special issue: bioremediation of contaminated soil and water: GeoTrop 2017) (Volume 29) (Impact Factor: 2.410) (JCR (Q2), Biotechnology and Applied Microbiology: 68/168) (https://link.springer.com/article/10.1007/s10532-018-9842-0)

International Conference Organization

10/2020	Chair, 20th International Conference on Heavy Metals in the Environment (ICHMET 2020), Seoul, South Korea
07/2019	Co-chair, The 9th International Conference on Geochemistry in the Tropics & Sub-Tropics (GEOTROP 2019), Queensland, Australia
12/2018	Co-Chair, 3rd International Conference on Biological Waste as Resource (BWR2018), Hong Kong
11/2018	Director, Asia resilience Center Conference (ARC 2018), Korea University, Seoul, South Korea
11/2018	Co-Chair, 4th Asia Pacific Biochar Conference (APBC 2018), Foshan, China
08/2018	Co-Chair, 4th International Conference on Contaminated Land, Ecological Assessment and Remediation (CLEAR 2018), Hung Hom, Hong Kong
07/2018	Session Chairs, 19th International Conference on Heavy Metals in the Environment (ICHMET 2018), Athens, USA

06/2018 Co-Chair, 2nd International Conference on Bioresources, Energy, Environmental, and Materials Technology (BEEM 2018), Technology Nexus for the Resonance of Nature and Humans, Hongcheon, Korea

12/2017 Co-Chair & International Advisory Committee, 8th International Conference on Geochemistry in the Topics & Sub-Tropics, Ecotoxicology of Persistent Toxic Substances In Food Production (GeoTrop2017), Shenzhen, China

11/2017 Symposia Organizer, O-jeong Eco-Resilience Institute (OJERI) 3rd Anniversary Symposium, Seoul, Republic of Korea

09/2017 Session coordinator, The 7th International Contaminated Site Remediation Conference incorporating the 1st International PFAS Conference (CleanUp 2017), Melbourne, Australia

07/2017 Symposia Organizer, Special Symposium on Interactions between Biochars and Trace Elements (TEs) in the Environment, The International Conference on the Biogeochemistry of Trace Elements (ICOBTE 2017), Zurich, Switzerland

05/2017 Co-Chair, The 2nd International Conference on Biological Waste as Resource (BWR2017), Hung Hom, Hong Kong

04/2017 Co-Organizer, Division of Geochemistry, 253rd American Chemical Society National Meeting & Exposition: Advanced Materials, Technologies, Systems & Processes, San Francisco, United States

11/2016 Key International Organizing Committee Member, 3rd International Conference on Contaminated Land, Ecological Assessment and Remediation (CLEAR 2016), Taipei, Taiwan

10/2016 Chair, 3rd Asia Pacific Biochar Conference (APBC 2016): A Shifting Paradigm towards Advanced Materials and Energy/Environmental Research, Chuncheon, Korea

10/2016 Convener, 3rd Asia Pacific Biochar Conference (APBC 2016): A Shifting Paradigm towards Advanced Materials and Energy/Environmental Research, Chuncheon, Republic of Korea

09/2016 Co-Organizer & International Organizing Committee Member, 5th International Conference on Soil Pollution and Remediation (SOILREM 2016), Hangzhou, China

09/2016 Co-Chair, Session (Application of Biochar in Soil Remediation), 5th International Conference on Soil Pollution and Remediation (SOILREM 2016), Hangzhou, China

09/2016 Co-Organizer & International Organizing Committee Member, 13th International Phytotechnologies Conference (PHYTOTECH 2016): Plant-Based Solutions for Environmental Problems from Lab to Field, Hangzhou, China

08/2016 Co-Organizer, Joint International Conference on Environment, Health, GIS and Agriculture (ISEH 2016 & Geoinformatics 2016), Galway, Ireland

09/2015 Convener, Session (From Biochar and Black Carbon to Stable SOM), 5th International Symposium on Soil Organic Matter (SOM 2015), Göttingen, Germany

08/2015 Co-Chair, International Symposium on Risk Assessment and Management of Contaminated Site, Daejeon, Republic of Korea

07/2015 Chair, Special Symposia (Biochar as a Sorbent for Contaminant Management in Soil and Water), 13th International Conference on the Biogeochemistry of Trace Elements (ICOBTE 2015), Fukuoka, Japan

01/2015 Co-Chair, Session (Eco-friendly Materials for Pollution Control), 2nd International Conference on Sustainable Urbanization (ICSU 2015), Hunghom, Hong Kong

12/2014 Co-Organizer, International Conference on Biological Waste as Resource, with a Focus on Food Waste, Taipo, Hong Kong

11/2014 International Organizing Committee, International Conference on Remediation and Management of Soil and Groundwater Contaminated Sites, Taipei, Taiwan

10/2014 Organizer, 2nd International Conference on Contaminated Land Ecological Assessment and Remediation (CLEAR 2014), Chuncheon, Republic of Korea

06/2014 Organizing Committee, 20th World Congress of Soil Science-Soils Embrace Life and Universe, Jeju, Korea

06/2014 Organizer and Convener, International Symposium on Biochar Soil Amendment for Environmental and Agronomic Benefits, 20th World Congress of Soil Science-Soils Embrace Life and Universe, Jeju, Republic of Korea

06/2014 Convener, International Symposium on Integrated Management Strategies for As and Cd in Rice Paddy Environments, 20th World Congress of Soil Science-Soils Embrace Life and Universe, Jeju, Republic of Korea

06/2014 Convener, International Symposium on Soil Health-Key to Food Security, 20th World Congress of Soil Science-Soils Embrace Life and Universe, Jeju, Republic of Korea

04/2013 Organizer, Biochar Session, International Conference on Solid Waste 2013-Innovation in Technology and Management, Wanchai, Hong Kong

11/2012 Organizer, International Symposium on Heavy Metal Remediation in Agricultural Ecosystems-Bioavailability-Based Soil Management Technology for Safer Food Crop Production, Chuncheon, Republic of Korea

11/2012 International Organizing Committee, 1st International Conference on Contaminated Land, Ecological Assessment and Remediation (CLEAR 2012), Hangzhou, China

12/2011 Organizer, 1st International Symposium on Biochar for Climate Change Mitigation and Soil and Environmental Management, Chuncheon, Republic of Korea

International Scientific Committee

12/2016 International Scientific Committee, Asia-Pacific Conference on Biotechnology for Waste Conversion 2016 (BioWCHK 2016), Hong Kong, China

09/2016 International Program Committee, International Conference on Heavy Metals in the Environment (ICHMET 2016), Ghent, Belgium

08/2016 Scientific and Organizing Committee Member (ISEH 2016 & ISEG 2016), Joint International Conference on Environment, Health, GIS and Agriculture (ISEH 2016, ISEG 2016 & Geoinformatics 2016), Galway, Ireland

09/2015 Scientific Committee, 5th International Symposium on Soil Organic Matter (SOM 2015), Göttingen, Germany

05/2015 International Scientific Committee, International Conference on Solid Waste-Knowledge Transfer for Sustainable Resource Management, Wanchai, Hong Kong

06/2014 International Scientific Committee, 20th World Congress of Soil Science-Soils Embrace Life and Universe, 2014, Jeju, Republic of Korea
07/2013 Advisory Committee, International Biochar Initiative (IBI)
05/2013 International Scientific Committee, International Conference on Solid Waste 2013-Innovation in Technology and Management, Wanchai, Hong Kong
09/2012 Scientific Committee Member, 4th International Biochar Congress-Road to Richer Food and Safer Environment, Beijing, China
2011-Present Scientific Committee Member, The Working Group on Remediation for Soil and Groundwater Pollution of Asian Countries

Keynote and Invited Speech

11/2017 Invited Speech, "SMART Biochar for Resilience-A shifting paradigm towards Environmental Research", Invited Research Seminar, Institute of Environment and Ecology, Korea University, Republic of Korea
01/2017 Invited Speech, "SMART Biochar Technology-A shifting paradigm towards advanced materials", Invited Research Seminar, Department of Building, National University of Singapore, Singapore
01/2017 Invited Speech, "SMART biochar technology: A shifting paradigm towards advanced materials and energy/environment research", 2nd Renewable Energy and Biochar Workshop, National University of Singapore, Singapore
01/2017 Invited Speech, "SMART biochar technology: A shifting paradigm towards advanced materials and energy/environment research", Invited Research Seminar, Nanyang Polytechnic, Singapore
01/2017 Invited Speech, "SMART biochar technology: A shifting paradigm towards advanced materials and energy/environment research", Invited Research Seminar, School of Civil and Environmental Engineering, Nanyang Technological University, Singapore
01/2017 Invited Speech, "SMART biochar technology: A shifting paradigm towards advanced materials and energy/environment research", Invited Research Seminar, Nanyang Environment & Water Research Institute (NEWRI), Singapore
01/2017 Plenary Speech, "Engineered biochar for environmental remediation and sustainable energy production", International Conference on Materials Engineering and Nano Sciences 2017 (ICMENS 2017), Nanyang Executive Centre, Singapore
12/2016 Invited Speech, "Pyrolysis process of agricultural waste using CO_2 for waste management, energy recovery, and biochar fabrication", Asia-Pacific Conference on Biotechnology for Waste Conversion 2016 (BioWC 2016), Hong Kong Baptist University, Hong Kong SAR, China
11/2016 Invited Speech, "Removal of hexavalent chromium in aqueous solutions using biochars: Chemical and spectroscopic investigations", 3rd International Conference on Contaminated Land, Ecological Assessment and Remediation (CLEAR 2016), Taipei, Taiwan
09/2016 Invited Speech, "Impacts of vegetable waste and pine cone biochars on microbial communities and heavy metal immobilization in contaminated soils", 5th

International Conference on Soil Pollution and Remediation (SOILREM 2016), Hangzhou, China

08/2016 Keynote Speech, "SMART Biochar Technology-A shifting paradigm towards advanced materials and healthcare research", Joint International Conference on Environment, Health, GIS and Agriculture (ISEH 2016 & Geoinformatics 2016), Galway, Ireland

07/2016 Invited Speech, "SMART Biochar Technology-A shifting paradigm towards advanced materials and healthcare research", 15th International Conference on Sustainable Energy Technologies (SET 2016), National University of Singapore, Singapore

10/2015 Invited Speech, "SMART Biochar Technology-A shifting paradigm towards advanced materials and healthcare research", Zhejiang University, Hangzhou, China

07/2015 Invited Speech, "SMART Biochar Technology-A shifting paradigm towards advanced materials and energy/environment research", Ghent University, Ghent, Belgium

07/2015 Invited Speech, "How to write and publish a scientific paper", Ghent University, Ghent, Belgium

06/2015 Invited Speech, "SMART Biochar Technology-A shifting paradigm towards advanced materials and energy/environment research", Wuppertal University, Wuppertal, Germany

05/2015 Invited Speech, "SMART biochar for management of veterinary antibiotics in the environment", International Conference on Solid Waste 2015, Wanchai, Hong Kong

04/2015 Invited Speech, "SMART Biochar Technology-A shifting paradigm towards advanced materials and energy/environment research", 2nd International Conference on Biochar and Green Agriculture (BioGra 2015), Nanjing, China

03/2015 Invited Speech, "Green remediation by biochar", Department of Environmental Science, Zhejiang University, Hangzhou, China

01/2015 Invited Speech, "SMART biochar for contaminant management in soil and water, department of engineering, civil", The University of Hong Kong, Pokfulam, Hong Kong

01/2015 Invited Speech, "SMART biochar for contaminant management in soil and water, school of energy and environment", City University of Hong Kong, Tatcheeave, Hong Kong

01/2015 Invited Speech, "SMART Biochar Technology-A shifting paradigm towards advanced materials and healthcare research", Department of Civil and Environmental Engineering, The Hong Kong Polytechnic University, Pokfulam, Hong Kong

01/2015 Invited Speech, "SMART biochar for management of veterinary antibiotics in the environment", Department of Biology, Hong Kong Baptist University, Kowloontong, Hong Kong

01/2015 Invited Speech, "SMART biochar for management of veterinary antibiotics in the environment", 2nd International Conference on Sustainable Urbanization (ICSU 2015), The Hong Kong Polytechnic University, Pokfulam, Hong Kong

12/2014 Keynote Speech, “SMART biochar technology for management of soil metals”, International Conference on Biological Waste as Resource, with a Focus on Food Waste, Wanchai, Hong Kong

11/2014 Invited Speech, “The role of biochar, natural iron oxides and nanomaterials as soil amendments for immobilizing metals in shooting range soil”, International Conference on Remediation and Management of Soil and Groundwater Contaminated Sites, Taipei, Taiwan

09/2014 Invited Speech, “SMART biochar technology for remediation of toxic metals in soils”, MARCO-FFTC Joint International Seminar on Management and Remediation Technologies of Rural Soils Contaminated by Heavy Metals and Radioactive Materials, Taichung, Taiwan

Education

Ph.D. 2003 Division of Environmental Science and Ecological Engineering (formerly, Department of Agricultural Chemistry), Korea University, Seoul, Republic of Korea (Title: *Empirical and mechanistic approach to adsorption and bioavailability of cadmium in soils and plants: implications in phytoremediation*)

M.S. 2000 Division of Environmental Science and Ecological Engineering, Korea University, Seoul, Republic of Korea (Title: *The evaluation of the hybrid model for the measurement of surface charge characteristics of clay, organic matter, oxides and composites*)

B.S. 1998 Division of Environmental Science and Ecological Engineering, Korea University, Seoul, Republic of Korea

Publications (> 550 Journal Articles, Scopus Author ID: 7003403766, ORCID: http://orcid.org/0000-0003-3401-0912)

Highly Cited Paper (Data from Essential Science Indicators. As of October 2018, these highly cited papers received enough citations to place them in the top of the academic field of engineering, environment/ ecology, biology and biochemistry, plant and animal science, agricultural science based on a highly cited threshold for the field and publication year)

1. Ahmad, M., Rajapaksha, A.U., Lim, J.E., Zhang, M., Bolan, N., Mohan, D., Vithanage, M., Lee, S.S. and Ok, Y.S.* (2014) Biochar as a sorbent for contaminant management in soil and water: A review. *Chemosphere*, 99:19-33 (IF 4.427) (JCR Top 15% (Q1), Environmental Sciences: 34/241) (*Corresponding Author) (3rd Hottest Article, January to December 2014 full year; 6th Most Downloaded Article, September and October 2014, 3rd Hottest Article, January to March 2015; 3rd Most Downloaded Article, July to September 2015; 4th Most Downloaded Article, January to December 2015 full year to present) (Times cited: 742 from Web of Science Core Collection)
2. Mohan, D., Sarswat, A., Ok, Y.S. and Pittman, C.U. (2014) Organic and inorganic contaminants removal from water with biochar, a renewable, low cost and sustainable adsorbent-A critical review. *Bioresource Technology*, 160:191-202 (IF 5.807) (JCR Top 10% (Q1), Agricultural Engineering: 1/14) (11th Most Downloaded Article, September and October 2014; 14th Most Downloaded Article, January to December 2014 full year; 20th Most Downloaded Article, January to December 2015 full year to present) (Times cited: 501 from Web of Science Core Collection)
3. Ahmad, M., Lee, S.S., Dou, X., Mohan, D., Sung, J.K., Yang, J.E. and Ok, Y.S.* (2012) Effects of pyrolysis temperature on soybean stover- and peanut shell-derived biochar properties and TCE adsorption in water. *Bioresource Technology*, 118:536-544 (IF 5.807) (JCR Top 10% (Q1), Agricultural Engineering: 1/14) (*Corresponding Author) (Times cited: 280 from Web of Science Core Collection)
4. Rajapaksha, A.U., Chen, S.S., Tsang, D.C.W., Zhang, M., Vithanage, M., Mandal, S., Gao, B., Bolan, N.S. and Ok, Y.S.* (2016) Engineered/designer biochar for contaminant removal/immobilization from soil and water: Potential and implication of biochar modification. *Chemosphere*, 148:276-291 (IF 4.427) (JCR Top 15% (Q1), Environmental Sciences: 34/241) (*Corresponding Author) (Times cited: 131 from Web of Science Core Collection)
5. Inyang, M.I., Gao, B., Yao, Y., Xue, Y., Zimmerman, A., Mosa, A., Pullammanappallil, P., Ok, Y.S. and Cao, X. (2016) A review of biochar as a low-cost adsorbent for aqueous heavy metal removal. *Critical Reviews in Environmental Science and Technology*, 46(4):406-433 (IF 7.683) (JCR Top 2.5% (Q1), Environmental Sciences: 16/229) (Times cited: 126 (from Web of Science Core Collection)
6. Stefaniuk, M., Oleszczuk, P. and Ok, Y.S. (2016) Review on nano zerovalent iron (nZVI): From synthesis to environmental applications. *Chemical Engineering Journal*, 287:618-632 (IF 6.735) (JCR Top 5% (Q1), Engineering, Chemical: 7/137) (Times cited: 104 from Web of Science Core Collection)
7. Ahmad, M., Lee, S.S., Lim, J.E., Lee, S.E., Cho, J.S., Moon, D.H., Hashimoto, Y. and Ok, Y.S.* (2014) Speciation and phytoavailability of lead and antimony in a small arms range soil amended with mussel shell, cow bone and biochar: EXAFS spectroscopy and chemical

extractions. *Chemosphere*, 95:433-441 (IF 4.427) (JCR Top 15% (Q1), Environmental Sciences: 34/241) (*Corresponding Author) (Times cited: 94 from Web of Science Core Collection)

8. Park, J.H., Ok, Y.S., Kim, S.H., Cho, J.S., Heo, J.S., Delaune, R.D. and Seo, D.C. (2016) Competitive adsorption of heavy metals onto sesame straw biochar in aqueous solutions. Chemosphere, 142:77-83 (IF 4.427) (JCR Top 15% (Q1), Environmental Sciences: 34/241) (Times cited: 90 from Web of Science Core Collection)
9. Awad, Y.M., Blagodatskaya, E., Ok, Y.S.* and Kuzyakov, Y. (2012) Effects of polyacrylamide, biopolymer, and biochar on decomposition of soil organic matter and plant residues as determined by ^{14}C and enzyme activities. *European Journal of Soil Biology*, 48:1-10 (IF 2.068) (JCR (Q2), Soil Science: 19/34) (*Corresponding Author) (Times cited: 87 from Web of Science Core Collection)
10. Choppala, G., Saifullah, Bolan, N., Bibi, S., Iqbal, M., Rengel, Z., Kunhikrishnan, A., Ashwath, N. and Ok, Y.S. (2014) Cellular mechanisms in higher plants governing tolerance to cadmium toxicity. *Critical Reviews in Plant Sciences*, 33:374-391 (IF 6.162) (JCR Top 5% (Q1), Plant Science: 10/222) (Times cited: 67 from Web of Science Core Collection)
11. Lu, K., Yang, X., Gielen, G., Bolan, N., Ok, Y.S., Niazi, N.K., Xu, S., Yuan, G., Chen, X., Zhang, X., Liu, D., Song, Z., Liu, X. and Wang, H. (2017) Effect of bamboo and rice straw biochars on the mobility and redistribution of heavy metals (Cd, Cu, Pb and Zn) in contaminated soil. *Journal of Environmental Management*, 186(2):285-292 (IF 4.005) (JCR Top 25% (Q1), Environmental Sciences: 47/241) (Times cited: 60 from Web of Science Core Collection)
12. Rajapaksha, A.U., Vithanage, M., Ahmad, M., Seo, D.C., Cho, J.S., Lee, S.E., Lee, S.S. and Ok, Y.S.* (2015) Enhanced sulfamethazine removal by steam-activated invasive plant-derived biochar. *Journal of Hazardous Materials*, 290:43-50 (IF 6.434) (JCR Top 5% (Q1), Engineering, Civil: 1/125) (*Corresponding Author) (Times cited: 59 from Web of Science Core Collection)
13. Yang, Y., Ok, Y.S., Kim, K.H., Kwon, E.E., Tsang, Y.F. (2017). Occurrences and removal of pharmaceuticals and personal care products (ppcps) in drinking water and water/sewage treatment plants: A Review. *Science of the Total Environment*, 596: 303-320. (IF 4.610) (JCR Top 15% (Q1) (Times cited: 55 from Web of Science Core Collection)
14. Rizwan, M., Ali, S., Abbas, T., Zia-ur-Rehman, M., Hannan, F., Keller, C., Al-Wabel, M.I. and Ok, Y.S. (2016) Cadmium minimization in wheat: A critical review. *Ecotoxicology and Environmental Safety*, 130:43-53 (IF 3.974) (JCR Top 20% (Q1), Environmental Sciences: 49/241) (Times cited: 51 from Web of Science Core Collection)
15. Rizwan, M., Ali, S., Qayyum, M.F., Ok, Y.S., Adrees, M., Ibrahim, M, Zia-ur-Rehman, M., Farid, M. and Abbas, F. (2017) Effect of metal and metal oxide nanoparticles on growth and physiology of globally important food crops: A critical review. *Journal of Hazardous Materials*, 322:2-16 (IF 6.065) (JCR Top 5% (Q1), Engineering, Civil: 1/125) (Times cited: 42 from Web of Science Core Collection)
16. Jiang, S., Huang, L., Nguyen, T.A.H., Ok, Y.S., Rudolph, V., Yang, H. and Zhang, D. (2016) Copper and zinc adsorption by softwood and hardwood biochars under elevated sulphate-induced salinity and acidic pH conditions. *Chemosphere*, 142:64-71 (IF 4.427) (JCR Top 15% (Q1), Environmental Sciences: 34/241) (Times cited: 41 from Web of Science Core Collection)
17. Rizwan, M., Ali, S., Adrees, M., Rizvi., H., Zia-ur-Rehman., M., Hannan, F., Qayyum, M. F., Hafeez, F. and Ok, Y.S. (2016) Cadmium stress in rice: toxic effects, tolerance

mechanisms, and management: A critical review. *Environmental Science and Pollution Research*, 23(18):17859-17879 (IF 2.800) (JCR (Q2), Environmental Sciences: 82/241) (Times cited: 39 from Web of Science Core Collection)

18. Rizwan, M., Ali, S., Qayyum, M.F., Ibrahim, M., Zia-ur-Rehman, M., Abbas, T. and Ok, Y.S. (2016) Mechanisms of biochar-mediated alleviation of toxicity of trace elements in plants: A critical review. *Environmental Science and Pollution Research*, 23:2230-2248 (IF 2.800) (JCR (Q2), Environmental Sciences: 82/241) (Times cited: 39 from Web of Science Core Collection)
19. Mandal, S., Thangarajan, R., Bolan, N.S., Sarkar, B., Khan, N., Ok, Y.S. and Naidu, R. (2016) Biochar-induced concomitant decrease in ammonia volatilization and increase in nitrogen use efficiency by wheat. *Chemosphere*, 142:120-127 (IF 4.427) (JCR Top 15% (Q1), Environmental Sciences: 34/241) (Times cited: 39 from Web of Science Core Collection)
20. Ahmad, M., Ok, Y.S.*, Rajapaksha, A.U., Lim, J.E., Kim, B.Y., Ahn, J.H., Lee, Y.H., Al-Wabel, M.I., Lee, S.E. and Lee, S.S. (2016) Lead and copper immobilization in a shooting range soil using soybean stover- and pine needle-derived biochars: Chemical, microbial and spectroscopic assessments. *Journal of Hazardous Materials*, 301:179-186 (IF 6.065) (*Co-first author) (JCR Top 5% (Q1), Engineering, Civil: 1/125) (Times cited: 38 from Web of Science Core Collection)
21. Abbas, T., Rizwan, M., Ali, S., Zia-ur-Rehman, M., Qayyum, M.F., Abbas, F., Hannan, F., Rinklebe, J. and Ok, Y.S. (2017) Effect of biochar on cadmium bioavailability and uptake in wheat (*Triticum aestivum* L.) grown in a soil with aged contamination. Ecotoxicology and Environmental Safety, 140:37-47 (IF 3.974) (JCR Top 20% (Q1), Environmental Sciences: 49/241) (Times cited: 35 from Web of Science Core Collection)
22. 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. (IF 7.339). (JCR Top 25% (Q1) (Times cited: 33 from Web of Science Core Collection)
23. Ahmad M., Lee, S.S., Lee, S.E., Al-Wabel, M.I., Tsang, D.C.W. and Ok, Y.S.* (2017) Biochar-induced changes in soil properties affected immobilization/mobilization of metals/metalloids in contaminated soils. *Journal of Soils and Sediments*, 17:717-730 (IF 2.627) (JCR (Q2), Soil Science: 11/34) (*Corresponding Author) (Times cited: 30 from Web of Science Core Collection)
24. Hussain, M., Farooq, M., Nawaz, A., Al-Sadi, A.M., Solaiman, Z.M., Alghamdi, S.S., Ammara, U., Ok, Y.S. and Siddique, K.H.M. (2017) Biochar for crop production: Potential benefits and risks. *Journal of Soils and Sediments*, 17:685-716 (IF 2.627) (JCR (Q2), Soil Science: 11/34) (Times cited: 28 from Web of Science Core Collection)
25. Rizwan, M., Ali, S., Adrees, M., Ibrahim, M., Tsang, D.C.W., Zia-ur-Rehman, M., Zahir, Z.A., Rinklebe, J., Tack, F.M.G. and Ok, Y.S.* (2017) A critical review on effects, tolerance mechanisms and management of cadmium in vegetables. *Chemosphere*, 182:90-105 (IF 4.427) (JCR Top 15% (Q1), Environmental Sciences: 34/241) (Times cited: 27 from Web of Science Core Collection)
26. Igalavithana, A.D., Lee, S.E., Lee, Y.H., Tsang, D.C., Rinklebe, J., Kwon, E.E. and Ok, Y.S.* (2017) Heavy metal immobilization and microbial community abundance by vegetable waste and pine cone biochar of agricultural soils. *Chemosphere*, 174:593-603 (IF

4.427) (JCR Top 15% (Q1), Environmental Sciences: 34/241) (*Corresponding Author) (Times cited: 24 from Web of Science Core Collection)
27. Niazi, N.K., Bibi, I., Shahid, M., Ok, Y.S., Burton, E.D., Wang, H.I., Shaheen, S.M., Rinklebe, J., Luttge, A. (2018). Arsenic Removal By Perilla Leaf Biochar In Aqueous Solutions And Groundwater: An Integrated Spectroscopic And Microscopic Examination. *Environmental Pollution* 232: 31-41. (IF 4.358). (JCR Top 20% (Q1) Environmental Sciences: 39/241) (Times cited: 24 from Web of Science Core Collection)
28. Beiyuan, J., Awad, Y.M., Beckers, F., Tsang, D.C.W., Ok, Y.S. and Rinklebe, J. (2017) Mobility and phytoavailability of As and Pb in a contaminated soil using pine sawdust biochar under systematic change of redox conditions. *Chemosphere*, 178:110-118. (IF 4.427) (JCR Top 15% (Q1), Environmental Sciences: 34/241) (Times cited: 24 from Web of Science Core Collection)
29. Lee, J., Yang, X., Cho, S.H., Kim, J.K., Lee, S.S., Tsang, D.C.W., Ok, Y.S.* and Kwon, E.E. (2017) Pyrolysis process of agricultural waste using CO_2 for waste management, energy recovery, and biochar fabrication. *Applied Energy*, 185:214-222 (IF 7.900) (JCR Top 5% (Q1), Engineering, Chemical: 4/137) (*Corresponding Author) (Times cited: 22 from Web of Science Core Collection)
30. Beiyuan, J., Tsang, D.C.W., Valix, M., Zhang, W., Yang, X., Ok, Y.S. and Li, X.D. (2017) Selective dissolution followed by EDDS washing of an e-waste contaminated soil: Extraction efficiency, fate of residual metals, and impact on soil environment. *Chemosphere*, 166:489-496 (IF 4.427) (JCR Top 15% (Q1), Environmental Sciences: 34/241) (Times cited: 22 from Web of Science Core Collection)
31. Mandal, S., Sarkar, B., Bolan, N., Ok, Y.S. and Naidu, R. (2017) Enhancement of chromate reduction in soils by surface modified biochar. *Journal of Environmental Management*, 186(2):277-284 (IF 4.005) (JCR Top 25% (Q1), Environmental Sciences: 47/241) (Times cited: 21 from Web of Science Core Collection)
32. Niazi, N.K., Bibi, I., Fatimah, A., Shahid, M., Javed, M.T., Wang, H., Ok, Y.S., Bashir, S., Murtaza, B., Saqib, Z.A. and Shakoor, M.B. (2017) Phosphate-assisted phytoremediation of arsenic by *Brassica napus* and *Brassica juncea*: Morphological and physiological response. *International Journal of Phytoremediation* 19(7):670-678 (IF 1.770) (JCR (Q2), Environmental Sciences: 121/229) (Times cited: 13 from Web of Science Core Collection)
33. Sarkar, B., Mandal, S., Tsang, Y.F., Kumar, P., Kim, K.H. and Ok, Y.S.* (2018) Designer carbon nanotubes for contaminant removal in water and wastewater: A critical review. *Science of the Total Environment*, 612:561-581 (IF 4.610) (JCR Top 15% (Q1), Environmental Sciences: 27/241) (Times cited: 11 from Web of Science Core Collection)
34. Fang, J., Zhan, L., Ok, Y.S. and Gao, B. (2017) Minireview of potential applications of hydrochar derived from hydrothermal carbonization of biomass. *Journal of Industrial and Engineering Chemistry*, 57: 15-21 (IF 4.841) (JCR Top 10% (Q1), Engineering, Chemical: 14/137) (Times cited: 9 from Web of Science Core Collection)

Hot paper (Data from Essential Science Indicators. These hot papers were published in the last year and received enough citations in October 2018 to place it in the top 0.1% of papers in the field of Environment/Ecology)

1. Ahmad M., Lee, S.S., Lee, S.E., Al-Wabel, M.I., Tsang, D.C.W. and Ok, Y.S.* (2017) Biochar-induced changes in soil properties affected immobilization/mobilization of metals/metalloids in contaminated soils. *Journal of Soils and Sediments*, 17:717-730 (IF 2.627) (JCR Q2), Soil Science: 11/34) (*Corresponding Author) (Times cited: 30 from Web of Science Core Collection)
2. Niazi, N.K., Bibi, I., Shahid, M., Ok, Y.S., Burton, E.D., Wang, H., Shaheen, S.M., Rinklebe, J. and Lüttge, A. (2017) Arsenic removal by perilla leaf biochar in aqueous solutions and groundwater: An integrated spectroscopic and microscopic examination. *Environmental Pollution,* 232:31-41(IF 4.358). (JCR Top 20% (Q1) Environmental Sciences: 39/241) (Times cited: 24 from Web of Science Core Collection)
3. Lu, K., Yang, X., Gielen, G., Bolan, N., Ok, Y.S., Niazi, N.K., Xu, S., Yuan, G., Chen, X., Zhang, X., Liu, D., Song, Z., Liu, X. and Wang, H. (2017) Effect of bamboo and rice straw biochars on the mobility and redistribution of heavy metals (Cd, Cu, Pb and Zn) in contaminated soil. *Journal of Environmental Management*, 186(2):285-292 (IF 4.005) (JCR Top 25% (Q1), Environmental Sciences: 47/241) (Times cited: 60 from Web of Science Core Collection)
4. Niazi, N.K., Bibi, I., Fatimah, A., Shahid, M., Javed, M.T., Wang, H., Ok, Y.S., Bashir, S., Murtaza, B., Saqib, Z.A. and Shakoor, M.B. (2017) Phosphate-assisted phytoremediation of arsenic by *Brassica napus* and *Brassica juncea*: Morphological and physiological response. *International Journal of Phytoremediation* 19(7):670-678 (IF 1.770) (JCR (Q2), Environmental Sciences: 121/229) (Times cited: 13 from Web of Science Core Collection)

Year 2019 (Selected)

1. Kim, K., Wang, C.H., Ok, Y.S. and Lee, S.E. (2019) Heart developmental toxicity by carbon black waste generated from oil refinery on zebrafish embryos (Danio rerio): Combined toxicity on heart function by nickel and vanadium, *Journal of Hazardous Materials*. 363: 127-137. (IF 6.065) (JCR Top 5% (Q1), Engineering, Civil: 1/125)
2. Tack, F.M.G., Rinklebe, J. and Ok, Y.S. (2019) Interactions between biochar and trace elements in the environment. (Editorial) *Science of The Total Environment*, 649: 792 (IF 4.610) (JCR Top 15% (Q1), Environmental Sciences: 27/241)
3. Khan, A., Szulejko, J.E., Kim, K.H., Sammadar, P., Lee, S.S., Yang, X.X. and Ok, Y.S. (2019) A comparison of figure of merit (FOM) for various materials in adsorptive removal of benzene under ambient temperature and pressure. *Environmental Research*, 168: 96-108. (IF 4.732) (JCR TOP 10% (Q1), Public, Environmental & Occupational Health: 12/180)
4. Yang, X., Tsibart, A., Nam, H., Hur, J., El-Naggar, A., Tack, F.M.G., Wang, C.H., Han Lee, Y., Tsang, D.C.W. and Ok, Y.S.* (2019). Effect of gasification biochar application on soil quality: trace metal behavior, microbial community, and soil dissolved organic matter.

Journal of Hazadous Materials. 365: 684-694. (IF 6.065) (JCR Top 5% (Q1), Engineering, Civil: 1/125) (* Corresponding author).

5. El-Naggar, A', Lee, S.S., Rinklebe, J., Farooq, M., Song, H., Sarmah, A.K., Zimmerman, A.R., Ahmad, M., Shaheen, S.M. and Ok, Y.S.* (2019) Biochar application to low fertility soils: A review of current status, and future prospects. *Geoderma*, 337: 536-554. (IF 3.740) (JCR Top 15% (Q1), Soil Science: 5/34) (* Corresponding author).
6. Yang, F.Zhang, S., Sun, Y., Tsang, D.C.W., Cheng, K. and Ok, Y.S. (2019). Assembling biochar with various layered double hydroxides for enhancement of phosphorus recovery. *Journal of Hazardous Materials*. 365: 665-673. (IF 6.065) (JCR Top 5% (Q1), Engineering, Civil: 1/125)
7. Ngigi, A.N., Ok, Y.S. and Thiele-Bruhn, S., (2019). Biochar-mediated sorption of antibiotics in pig manure. *Journal of Hazardous Materials*. 364: 663-670. (IF 6.065) (JCR Top 5% (Q1), Engineering, Civil: 1/125)
8. Cao, L. Yu, I.K.M., Cho, D-W., Tsang, D.C.W., Zhang, S., Ding, S., Wang, L., Ok, Y.S. (2019). Microwave-assisted low-temperature hydrothermal treatment of red seaweed (*Gracilaria lemaneiformis*) for production of levulinic acid and algae hydrochar. *Bioresource Technology*. 273: 251-258. (IF 5.807) (JCR Top 10% (Q1), Agricultural Engineering: 1/14)
9. Zou, W., Gao, B., Ok, Y.S. and Dong, L. (2019). Integrated adsorption and photocatalytic degradation of volatile organic compounds (VOCs) using carbon-based nanocomposites: A critical review. *Chemosphere.* 218. 845-859. (IF 4.427) (JCR Top 15% (Q1), Environmental Sciences: 34/241)
10. Shen, Z., Zhang, J., Hou, D., Tsang, D.C.W., Ok, Y.S., Alessi, D.S. (2019). Synthesis of MgO-coated corncob biochar and its application in lead stabilization in a soil washing residue. *Environment International.* (in press) (IF 7.088) (JCR Top 5% (Q1), Environmental Science: 7/229) (Published online: 28 November 2018).
11. Chowdhury, S., Kim, G., Ok, Y.S. and Bolan, N. (2019). Effect of carbon and nitrogen mobilization from livestock mortalities on nitrogen dynamics in soil. *Process Safety and Environmental Protection*. (in press) (IF 3.441) (JCR Top 20% (Q1), Engineering, Chemical: 27/137) (Published online: 27 November 2018).

Year 2018 (Selected)

1. Jeong, K.H., Choi, D.H., Lee, D.J., Kim, J.K., Kim, H., Ok, Y.S. and Kwon, E.E. (2018) CO_2-looping in pyrolysis of horse manure using $CaCO_3$. *Journal of Cleaner Production*, 174, 616-624. (IF 5.651) (JCR Top 10% (Q1), Environmental Sciences: 21/241)
2. Cao, L., Yu, I.K.M., Chen, S.S., Tsang, D.C.W., Wang, L., Xiong, X., Zhang, S., Ok, Y.S., Kwon, E.E., Song, H. and Poon, C.S. (2018) Production of 5-hydroxymethylfurfural from starch-rich food waste catalyzed by sulfonated biochar. *Bioresource Technology*, 252, 76-82. (IF 5.807) (JCR Top 10% (Q1), Agricultural Engineering: 1/14)

3. El-Naggar, Ali, Shaheen, S.M., Ok, Y.S.* and 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 (IF 4.610) (JCR Top 15% (Q1), Environmental Sciences: 27/241) (* Corresponding author)
4. Kumarathilaka, P., Ahmad, M., Herath, I., Mahatantila, K., Athapattu, B.C.L., Rinklebe, J., Ok, Y.S., Usman, A., Al-Wabel, M.I., Abduljabbar, A. and Vithanage, M. (2018) Influence of bioenergy waste biochar on proton-and ligand-promoted release of Pb and Cu in a shooting range soil. *Science of The Total Environment*, (IF 4.610) (JCR Top 15% (Q1), Environmental Sciences: 27/241) (* Corresponding author)
5. Awad, Y.M., Ok, Y.S.*, Abrigata, J., Beiyuan, J., Beckers, F., Tsang, D.C.W. and Rinklebe, J. (2018) Pine sawdust biomass and biochars at different pyrolysis temperatures change soil redox processes. *Science of The Total Environment*, 625:147-154 (IF 4.610) (JCR Top 15% (Q1), Environmental Sciences: 27/241) (* Corresponding author)
6. He, L., Fan, S., Müller K., Wang, H., Che, L., Xu, S., Song, Z., Yuan, G., Rinklebe, J., Tsang, D.C.W., Ok, Y.S. and Bolan, N.S. (2018) Comparative analysis biochar and compost-induced degradation of di-(2-ethylhexyl) phthalate in soils. *Science of The Total Environment*, (IF 4.610) (JCR Top 15% (Q1), Environmental Sciences: 27/241)
7. Rajapakasha, A.U., Alam, M.S., Chen, N., Alessi, D.S. and Ok, Y.S.* (2018) Pine sawdust biochar reduces GHG emission by decreasing microbial and enzyme activities in forest and grassland soils in a laboratory experiment. *Science of The Total Environment*, 625: 1247-1256 (IF 4.610) (JCR Top 15% (Q1), Environmental Sciences: 27/241) (* Corresponding author)
8. Pokharel, P., Kwak, J.H., Ok, Y.S., and Chang, S.X. (2018) Pine sawdust biochar reduces GHG emission by decreasing microbial and enzyme activities in forest and grassland soils in a laboratory experiment. *Science of The Total Environment*, (IF 4.610) (JCR Top 15% (Q1), Environmental Sciences: 27/241)
9. Shen, Z., Hou, D., Zhao, B., Xu, W., Ok, Y.S., Bolan, N.S. and Alessi, D.S. (2018) Stability of heavy metals in soil washing residue with and without biochar addition under accelerated ageing. *Science of The Total Environment*, 619-620, 410-418 (IF 4.610) (JCR Top 15% (Q1), Environmental Sciences: 27/241)
10. Kang, S., Jung, J., Choe, J.K., Ok, Y.S. and Choi, Y. (2018) Effect of biochar particle size on hydrophobic organic compound sorption kinetics: Applicability of using representative size. *Science of The Total Environment*, 619-620, 410-418 (IF 4.610) (JCR Top 15% (Q1), Environmental Sciences: 27/241)
11. Poulose, A.M., Elnour, A.Y., Anis, A., Shaikh, H., Al-Zahrani, S.M., George, J., Al-Wabel, M.I., Usman, A.R., Ok, Y.S., Tsang, D.C.W. and Sarmah, A.K. (2018) Date palm biochar-polymer composites: An investigation of electrical, mechanical, thermal and rheological characteristics. *Science of The Total Environment*, 619-620, 311-318 (IF 4.610) (JCR Top 15% (Q1), Environmental Sciences: 27/241)
12. Sun, Y., Lei, C., Khan, E., Chen, S.S., Tsang, D.C., Ok, Y.S., Lin, D., Feng, Y. and Li, X.D. (2018) Aging effects on chemical transformation and metal (loid) removal by entrapped nanoscale zero-valent iron for hydraulic fracturing wastewater treatment. *Science of The Total Environment*, 615, 498-507 (IF 4.610) (JCR Top 15% (Q1), Environmental Sciences: 27/241)

13. Beiyuan, J., Lau, A.Y.T., Tsang, D.C.W., Zhang, W., Kao, C.M., Baek, K., Ok, Y.S. and Li, X.D. (2018) Chelant-enhanced washing of CCA-contaminated soil: Coupled with selective dissolution or soil stabilization. *Science of the Total Environment*, 612:1463-1472 (IF 4.610) (JCR Top 15% (Q1), Environmental Sciences: 27/241)
14. Sarkar, B., Mandal, S., Tsang, Y.F., Kumar, P., Kim, K.H. and Ok, Y.S.* (2018) Designer carbon nanotubes for contaminant removal in water and wastewater: A critical review. *Science of the Total Environment*, 612:561-581 (IF 4.610) (JCR Top 15% (Q1), Environmental Sciences: 27/241) (* Corresponding author)
15. Cho, D.W., Jeong, K.H., Kim, S., Tsang, D.C.W., Ok, Y.S. and Song, H. (2018) Synthesis of cobalt-impregnated carbon composite derived from a renewable resource: Characterization and catalytic performance evaluation. *Science of the Total Environment*, 612:103-110 (IF 4.610) (JCR Top 15% (Q1), Environmental Sciences: 27/241)
16. Thangarajan, R., Bolan, N.S., Kunhikrishnan, A., Wijesekara, H., Xu, Y., Tsang, D.C.W., Song, H., Ok, Y.S. and Hou, D. (2018) The potential value of biochar in the mitigation of gaseous emission of nitrogen. *Science of the Total Environment*, 612:257-268 (IF 4.610) (JCR Top 15% (Q1), Environmental Sciences: 27/241)
17. Rajapaksha, A. U., Alam, M.S., Chen N., Alessi D. S., Igalavithana, A.D., Tsang, D.C.W., Ok, Y.S.* (2018) Removal of hexavalent chromium in aqueous solutions using biochar: Chemical and spectroscopic investigations. *Science of the Total Environment*, 612:103-110 (IF 4.610) (JCR Top 15% (Q1), Environmental Sciences: 27/241) (* Corresponding author)
18. He L., Fan S., Müller K., Wang H., Che L., Xu S., Song Z., Yuan G., Rinklebe J., Tsang, D.C.W., Ok, Y.S., Bolan N. S. (2018) Comparative analysis biochar and compost-induced degradation of di-(2-ethylhexyl) phthalate in soils. *Science of the Total Environment*, 612:257-268 (IF 4.610) (JCR Top 15% (Q1), Environmental Sciences: 27/241)
19. Lee C. H., Wang C., Lin H., Lee S. S., Tsang, D.C.W., Jien S., Ok, Y.S.* (2018) In-situ biochar application conserves nutrients while simultaneously mitigating runoff and erosion of an Fe-oxide-enriched tropical soil. *Science of the Total Environment*, 612:103-110 (IF 4.610) (JCR Top 15% (Q1), Environmental Sciences: 27/241) (* Corresponding author)
20. Awad, Y.M., Wang, J., Igalavithana, A.D., Tsang, D.C.W., Kim, K.H., Lee, S.S. and Ok, Y.S.* (2018) Biochar Effects on Rice Paddy: Meta-analysis. *Advances in Agronomy*, (in press) (IF 4.5.073) (JCR Top 5% (Q1), Agronomy: 2/87) (* Corresponding author)
21. Buruga, K., Kalathi, J.T., Kim, K.H., Ok, Y.S. and Danil, B. (2018) Polystyrene-halloysite nano tube membranes for water purification. *Journal of Industrial and Engineering Chemistry*, (IF 4.841) (JCR Top 10% (Q1), Engineering, Chemical: 14/137)
22. Cheng, L., Sun, Y., Khan, E., Chen, S.S., Tsang, D.C.W., Graham, N.J.D., Ok, Y.S., Yang, X., Lin, D., Feng, Y. and Li, X.D. (2018) Removal of chlorinated organic solvents from hydraulic fracturing wastewater by bare and entrapped nanoscale zero-valent iron. *Chemosphere*, 196, 9-17 (IF 4.427) (JCR Top 15% (Q1), Environmental Sciences: 34/241)
23. Awad, Y.M., Lee, S.S., Kim, K.H., Ok, Y.S., and Kuzyakov, Y. (2018) Carbon and nitrogen mineralization and enzyme activities in soil aggregate-size classes: Effects of biochar, oyster shells, and polymers. *Chemosphere*, (IF 4.427) (JCR Top 15% (Q1), Environmental Sciences: 34/241)

24. Kim, K., Jeon, H.J., Choi, S.D., Tsang, D.C.W., Oleszczuk, P., Ok, Y.S., Lee, H.S. and Lee, S.E. (2018) Combined toxicity of endosulfan and phenanthrene mixtures and induced molecular changes in adult Zebrafish (Danio rerio). *Chemosphere*, 194:30-41 (IF 4.427) (JCR Top 15% (Q1), Environmental Sciences: 34/241)
25. Rai, P.K., Lee, J., Kailasa, S.K., Kwon, E.E., Tsang, Y.F., Ok, Y.S. and Kim, K.H. (2018) A critical review of ferrate (VI)-based remediation of soil and groundwater. *Environmental Research*, 160, 420-448 (IF 4.732) (JCR TOP 10% (Q1), Public, Environmental & Occupational Health: 12/180)
26. Park, J.H., Wang, J.J., Kim, S.H., Kang, S.W., Cho, J.S., Delaune, R.D., Ok, Y.S. and Seo, D.C. (2018) Lead sorption characteristics of various chicken bone part-derived chars. *Environmental Geochemistry and Health* (IF 2.994) (JCR Top 15% (Q1), Water Resources: 14/90) (Published online: 18 January 2018)
27. Rai, P.K., Kumar, V., Lee, S., Raza, N., Kim, K.H., Ok, Y.S. and Tsang, D.C., (2018) Nanoparticle-plant interaction: Implications in energy, environment, and agriculture. *Environment international*, 119, 1-19 (IF 7.297) (JCR TOP 5% (Q1), Environmental Sciences: 7/241)
28. Cho, D.W., Kim, S., Tsang, D.C., Bolan, N.S., Kim, T., Kwon, E.E., Ok, Y.S. and Song, H., (2018) Contribution of pyrolytic gas medium to the fabrication of co-impregnated biochar. *Journal of CO_2 Utilization*, 26, 476-486. (IF 5.503) (JCR Top 10% (Q1), Engineering, Chemical: 11/137)
29. Idrees, M., Batool, S., Ullah, H., Hussain, Q., Al-Wabel, M.I., Ahmad, M., Hussain, A., Riaz, M., Ok, Y.S. and Kong, J., (2018). Adsorption and thermodynamic mechanisms of manganese removal from aqueous media by biowaste-derived biochars. *Journal of Molecular Liquids*. 266: 373-380 (IF 4.513) (JCR Top 10% (Q1), Chemistry, Physical: 37/146) (Published online: 13 June 2018).
30. Shaheen, S.M., Niazi, N.K., Hassan, N.E., Bibi, I., Wang, H., Tsang, D.C., Ok, Y.S., Bolan, N. and Rinklebe, J., (2018). Wood-based biochar for the removal of potentially toxic elements in water and wastewater: a critical review. *International Materials Reviews*, (IF 12.703) (JCR (Q1), Materials Science: 16/285) (Published online: 02 Jul 2018)1-32.
31. Samaddar, P., Ok, Y.S., Kim, K.H., Kwon, E.E. and Tsang, D.C., 2018. Synthesis of nanomaterials from various wastes and their new age applications. *Journal of Cleaner Production*. 197, 1190-1209 (IF 5.651) (JCR Top 10% (Q1), Environmental Sciences: 21/241)
32. El-Naggar, A., Awad, Y.M., Tang, X.Y., Liu, C., Niazi, N.K., Jien, S.H., Tsang, D.C., Song, H., Ok, Y.S.* and Lee, S.S., (2018). Biochar influences soil carbon pools and facilitates interactions with soil: A field investigation. *Land Degradation & Development*. 1-10 (IF 7.270) (JCR Top 5% (Q1), Environmental Sciences: 8/241) (Published online: 09 February 2018) (* Corresponding author)
33. Cao, L., Iris, K.M., Tsang, D.C., Zhang, S., Ok, Y.S., Kwon, E.E., Song, H. and Poon, C.S., 2018. Phosphoric acid-activated wood biochar for catalytic conversion of starch-rich food waste into glucose and 5-hydroxymethylfurfural. *Bioresource Technology*. (IF 5.807) (JCR Top 10% (Q1), Agricultural Engineering: 1/14) (Published online: 10 July 2018)
34. Liu, B., Vellingiri, K., Jo, S.H., Kumar, P., Ok, Y.S.* and Kim, K.H. (2018). Recent advances in controlled modification of the size and morphology of metal-organic

frameworks. *Nano Research*, 11(9): 4441–4467 (IF 7.994) (JCR TOP 10% (Q1), Physics Applied: 13/146) (* Corresponding author)

35. O'Connor, D., Hou, D., Ye, J., Zhang, Y., Ok, Y.S., Song, Y., Coulon, F., Peng, T., Tian, Li. (2018). Lead-based paint remains a major public health concern: A critical review of global production, trade, use, exposure, health risk, and implications. *Environment International* 121; 85–101. (IF 7.297) (JCR TOP 5% (Q1), Environmental Sciences: 7/241)
36. Yang, X., Igalavithana, A.D., Oh, S.E., Nam, H., Zhang, M., Wang, C.H., Kwon, E.E., Tsang, D.C.W., Ok, Y.S.* (2018). Characterization of bioenergy biochar and its utilization for metal/metalloid immobilization in contaminated soil. *Science of the Total Environment*, 640-641:704-713. (IF 4.610) (JCR Top 15% (Q1), Environmental Sciences: 27/241) (* Corresponding author)
37. Shakoor, M.B., Niazi, N.K., Bibi, I., Shahid, M., Sharif, F., Bashir, S., Shaheen, S.M., Wang, H., Tsang, D.C.W., Ok, Y.S., Rinklebe, J. (2018). Arsenic removal by natural and chemically modified water melon rind in aqueous solutions and groundwater. *Science of the Total Environment*, 645: 1444-1455. (IF 4.610) (JCR Top 15% (Q1), Environmental Sciences: 27/241)
38. El-Naggar, A., Leed, S.S., Awad, Y.M., Yang, X., Ryu, C., Rizwang, M., Rinklebeh, J., Tsangj, D.C.W., Ok, Y.S.* (2018). Influence of soil properties and feedstocks on biochar potential for carbon mineralization and improvement of infertile soils. *Geoderma*, 332: 100-108. (IF 3.740) (JCR Top 15% (Q1), Soil Science: 5/34) (* Corresponding author).
39. Xiong, X., Iris, K.M., Chen, S.S., Tsang, D.C., Cao, L., Song, H., Kwon, E.E., Ok, Y.S., Zhang, S. and Poon, C.S., (2018). Sulfonated biochar as acid catalyst for sugar hydrolysis and dehydration. *Catalysis Today*, 314: 52-61. (IF 4.667) (JCR Top 10% (Q1), Chemistry, Applied: 6/71)
40. Yu, I.K.M., Tsang, D.C.W., Yip, A.C.K., Hunt, A.J., Sherwood, J., Shang, J., Song, H., Ok, Y.S.*, and Poon, C.S. (2018). Propylene carbonate and γ-valerolactone as green solvents enhance Sn (IV)-catalysed hydroxymethylfurfural (HMF) production from bread waste. *Green Chemistry*, 20: 2064-2074. (IF: 8.586) (JCR Top 10% (Q1), Green and Sustainable Science and Technology: 2/33) (* Corresponding author).
41. Yu, I.K.M., Xiong, X., Tsang, D.C.W., Wang, L., Hunt, A.J., Song, H., Shang, J., Ok, Y.S. and Poon, C.S. (2018). Aluminium-Biochar Composites as Sustainable Heterogeneous Catalysts for Glucose Isomerisation in a Biorefinery. *Green Chemistry*. (IF: 8.586) (Published online: 10 September 2018) (IF: 8.586) (JCR Top 10% (Q1), Green and Sustainable Science and Technology: 2/33)

Year 2017 (Selected)

1. Al-Wabel, M.I., Hussain, Q., Usman, A.R., Ahmad, M., Abduljabbar, A., Abdulazeam, S. and Ok, Y.S. (2017) Impact of Biochar Properties on Soil Conditions and Agricultural

Sustainability: A Review. *Land Degradation & Development*. (IF 7.270) (JCR Top 5% (Q1), Environmental Sciences: 8/241) (Published online:4 October 2017)

2. Walekar, L., Dutta, T., Kumar, P., Ok, Y. S., Pawar, S., Deep, A. and Kim, K. H. (2017) Functionalized fluorescent nanomaterials for sensing pollutants in the environment: A critical review. *TrAC Trends in Analytical Chemistry*. (IF 7.034) (JCR Top 5% (Q1), Chemistry, Analytical: 3/80) (Published online:21 October 2017)
3. Cho, D., Kwon, G., Ok, Y.S., Kwon, E.E. and Song, H. (2017) Reduction of bromate by cobalt-impregnated biochar fabricated via pyrolysis of lignin using CO_2 as a reaction medium. *ACS Applied Materials & Interfaces*, 9(15):13142-13150 (IF 8.097) (JCR Top 10% (Q1), Materials Science, Multidisciplinary: 26/285)
4. Lee, J., Yang, X., Cho, S.H., Kim, J.K., Lee, S.S., Tsang, D.C.W., Ok, Y.S.* and Kwon, E.E. (2017) Pyrolysis process of agricultural waste using CO_2 for waste management, energy recovery, and biochar fabrication. *Applied Energy*, 185:214-222 (IF 7.900) (JCR Top 5% (Q1), Engineering, Chemical: 4/137) (*Corresponding Author)
5. Bolan, S., Kunhikrishnan, A., Seshadri, B., Choppala, G., Naidu, R., Bolan, N.S., Ok, Y.S., Zhang, M., Li, C.G., Li, F., Noller, B. and Kirkham, M.B. (2017) Sources, distribution, bioavailability, toxicity, and risk assessment of heavy metal(loid)s in complementary medicines. *Environmental International*, 108:103-118 (IF 7.088) (JCR Top 5% (Q1), Environmental Science: 7/229)
6. Antoniadis, V., Levizou, E., Shaheen, S.M., Ok, Y.S., Sebastian, A., Baum, C., Prasad, M.N., Wenzel, W.W. and Rinklebe, J. (2017) Trace elements in the soil-plant interface: Phytoavailability, translocation, and phytoremediation–A review. *Earth-Science Reviews*, 171:621-645 (IF 7.015) (JCR Top 5% (Q1), Geosciences, Multidisciplinary: 3/188)
7. Vithanage, M., Herath, I., Joseph, S., Bundschuh, J., Bolan, N., Ok, Y.S., Kirkham, M.B. and Rinklebe, J. (2017) Interaction of arsenic with biochar in soil and water: A critical review. *Carbon*, 113:219-230 (IF 7.082) (JCR Top 10% (Q1), Materials Science, Multidisciplinary: 32/285)
8. Chen, S.S., Maneerung, T., Tsang, D.C.W., Ok, Y.S and Wang, C.H. (2017) Valorization of biomass to hydroxymethylfurfural, levulinic acid, and fatty acid methyl ester by heterogeneous catalysts. *Chemical Engineering Journal*, 328:246-273 (IF 6.735) (JCR Top 5% (Q1), Engineering, Chemical: 7/137)
9. Chen, S.S., Yu, I.K.M., Tsang, D.C.W., Yip, A.C.K., Khan, E., Wang, L., Ok, Y.S* and Poon, C.S. (2017) Valorization of cellulosic food waste into levulinic acid catalyzed by heterogeneous Brønsted acids: Temperature and solvent effects. *Chemical Engineering Journal*, 327:328-335 (IF 6.735) (JCR Top 5% (Q1), Engineering, Chemical: 7/137) (*Corresponding Author)
10. Hashimoto, Y., Takeuchi, S., Mitsunobu, S. and Ok, Y.S. (2017) Chemical speciation of silver (Ag) in soils under aerobic and anaerobic conditions: Ag nanoparticles vs. ionic Ag. *Journal of Hazardous Materials*, 322:318-324 (IF 6.065) (JCR Top 5% (Q1), Engineering, Civil: 1/125)
11. Lien, H.L., Shih, Y., Yan, W. and Ok, Y.S. (2017) Preface: Environmental nanotechnol. *Journal of Hazardous Materials*, 322:1 (IF 6.065) (JCR Top 5% (Q1), Engineering, Civil: 1/125)
12. Rizwan, M., Ali, S., Qayyum, M.F., Ok, Y.S., Adrees, M., Ibrahim, M, Zia-ur-Rehman, M., Farid, M. and Abbas, F. (2017) Effect of metal and metal oxide nanoparticles on growth and physiology of globally important food crops: A critical review. *Journal of Hazardous Materials*, 322:2-16 (IF 6.065) (JCR Top 5% (Q1), Engineering, Civil: 1/125)

13. Qi, F., Kuppusamy, S., Naidu, R., Bolan, N.S., Ok, Y.S., Lamb, D., Li, Y., Yu, L., Semple, K.T. and Wang, H. (2017) Pyrogenic carbon and its role in contaminant immobilization in soils. *Critical Reviews in Environmental Science and Technology* (IF 7.683) (JCR Top 2.5% (Q1), Environmental Sciences: 16/229) (Published online:19 May 2017)
14. Lee, J., Choi, D., Ok, Y. S., Lee, S. R. and Kwon, E. E. (2017) Enhancement of energy recovery from chicken manure by pyrolysis in carbon dioxide. *Journal of Cleaner Production*, 164:146-152 (IF 5.651) (JCR Top 10% (Q1), Environmental Sciences: 21/241)
15. Lee, T., Lee, J., Ok, Y.S., Oh, J.I., Lee, S.R., Rinklebe, J. and Kwon, E.E. (2017) Utilizing CO_2 to suppress the generation of harmful chemicals from thermal degradation of polyvinyl chloride. *Journal of Cleaner Production*, 162:1465-1471 (IF 5.651) (JCR Top 10% (Q1), Environmental Sciences: 21/241)
16. Awad, Y.M., Lee, S.E., Ahmed, M.B.M., Vu, N.T., Farooq, M., Kim, S.I., Kim, H.S., Vithanage, M., Usman, A.R.A., Al-Wabel, M., Meers, E., Kwon, E.E. and Ok, Y.S.* (2017) Biochar, a potential hydroponic growth substrate, enhances the nutritional status and growth of leafy vegetables. *Journal of Cleaner Production*, 156:581-588 (IF 5.651) (JCR Top 10% (Q1), Environmental Sciences: 21/241) (*Corresponding Author)
17. Sanroman, M.A., Lee, D.J., Khanal, S. and Ok, Y.S. (2017) Special issue on biochar: Production, characterization and application-Beyond soil application. *Bioresource Technology*, 236:1 (IF 5.807) (JCR Top 10% (Q1), Agricultural Engineering: 1/14)
18. Chen, S.S., Wang, L., Yu, I.K.M., Tsang, D.C.W., Hunt, A.J., Jérômec, F., Zhang, S., Ok, Y.S. and Poon, C.S. (2017) Valorization of lignocellulosic fibres of paper waste into levulinic acid using solid and aqueous Brønsted Acid, *Bioresource Technology*, (IF 5.807) (JCR Top 10% (Q1), Agricultural Engineering: 1/14) (Published online:20 September 2017)
19. Yu, I.K.M., Tsang, D.C.W., Chen, S.S., Wang, L., Hunt, A.J., Sherwood, J., De Oliveira Vigier, K., Jérôme, F., Ok, Y.S. and Poon, C.S. (2017) Polar Aprotic Solvent-Water Mixture as the Medium for Catalytic Production of Hydroxymethylfurfural (HMF) from Bread Waste, *Bioresource Technology*, (IF 5.807) (JCR Top 10% (Q1), Agricultural Engineering: 1/14) (Published online:29 August 2017)
20. Godlewska, P., Schmidt, H.P., Ok, Y.S., and Oleszczuk, P. (2017) Biochar for composting improvement and contaminants reduction. A review. *Bioresource Technology*, (IF 5.807) (JCR Top 10% (Q1), Agricultural Engineering: 1/14) (Published online:18 July 2017)
21. Mandal, S., Sarkar, B., Igalavithana, A.D., Ok, Y.S., Yang, X., Lombi, E. and Bolan, N. (2017) Mechanistic insights of 2,4-D sorption onto biochar: Influence of feedstock materials and biochar properties. *Bioresource Technology*, (IF 5.807) (JCR Top 10% (Q1), Agricultural Engineering: 1/14) (Published online:8 July 2017)
22. Qi, F., Yan, Y., Lamb, D., Naidu, R., Bolan, N.S., Liu, Y., Ok, Y.S., Donne, S.W. and Semple, K.T. (2017) Thermal stability of biochar and its effects on cadmium sorption capacity. *Bioresource Technology*, (IF 5.807) (JCR Top 10% (Q1), Agricultural Engineering: 1/14) (Published online:8 July 2017)
23. You, S., Ok, Y.S., Chen, S.S., Tsang, D.C.W., Kwon, E.E., Lee, J. and Wang, C.H. (2017) A critical review on sustainable biochar system through gasification: Energy and environmental applications. *Bioresource Technology*, (IF 5.807) (JCR Top 10% (Q1), Agricultural Engineering: 1/14) (Published online:1 July 2017)

24. Xiong, X., Yu, I.K.M., Cao, L., Tsang, D.C.W., Zhang, S. and Ok, Y.S. (2017) A review of biochar-based catalysts for chemical synthesis, biofuel production, and pollution control. *Bioresource Technology*, (IF 5.807) (JCR Top 10% (Q1), Agricultural Engineering: 1/14) (Published online:3 July 2017)
25. Yuan, Y., Bolan, N., Prévoteau, A., Vithanage, M., Biswas, J. K., Ok, Y. S. and Wang, H. (2017) Applications of biochar in redox-mediated reactions. *Bioresource Technology*, (IF 5.807) (JCR Top 10% (Q1), Agricultural Engineering: 1/14) (Published online:1 June 2017)
26. Lee, J., Jung, J.M., Oh, J.I., Ok, Y.S. and Kwon, E.E. (2017) Establishing a green platform for biodiesel synthesis via strategic utilization of biochar and dimethyl carbonate. *Bioresource Technology*, 241:1178-1181 (IF 5.807) (JCR Top 10% (Q1), Agricultural Engineering: 1/14)
27. Lee, J., Kim, J., Ok, Y.S. and Kwon, E.E. (2017) Rapid biodiesel synthesis from waste pepper seeds without lipid isolation step. *Bioresource Technology*, 239:17-20 (IF 5.807) (JCR Top 10% (Q1), Agricultural Engineering: 1/14)
28. Gunten, K., Alam, Samrat, A., Hubmann, M., Ok, Y.S., Konhauser, K.O. and Alessi, D.S. (2017) Modified sequential extraction for biochar and petroleum coke: metal release potential and its environmental implications. *Bioresource Technology*, 236:106-110 (IF 5.807) (JCR Top 10% (Q1), Agricultural Engineering: 1/14)
29. Lee, J., Jung, J.M., Oh, J.I., Ok, Y.S., Lee, S.R. and Kwon, E.E. (2017) Evaluating the effectiveness of various biochars as porous media for biodiesel synthesis via pseudo-catalytic transesterification. *Bioresource Technology*, 231:59-64 (IF 5.807) (JCR Top 10% (Q1), Agricultural Engineering: 1/14)
30. Iris, K.M., Tsang, D.C., Yip, A.C., Chen, S.S., Wang, L., Ok, Y.S. and Poon, C.S. (2017) Catalytic valorization of starch-rich food waste into hydroxymethylfurfural (HMF): Controlling relative kinetics for high productivity. *Bioresource Technology*, 237:222-230 (IF 5.807) (JCR Top 10% (Q1), Agricultural Engineering: 1/14)
31. Cho, D.W., Kwon, G., Yoon, K., Tsang, Y.F., Ok, Y.S., Kwon, E.E. and Song, H. (2017) Simultaneous production of syngas and magnetic biochar via pyrolysis of paper mill sludge using CO_2 as reaction medium. *Energy Conversion and Management*, 145:1-9 (IF 5.589) (JCR Top 5% (Q1), Mechanics: 4/133)
32. Kameda, K., Hashimoto, Y. and Ok, Y.S. (2017) Stabilization of arsenic and lead by magnesium oxide (MgO) in different seawater concentrations. *Environmental Pollution* (IF 4.358). (JCR Top 20% (Q1) Environmental Sciences: 39/241) (Published online:29 September 2017)
33. Niazi, N.K., Bibi, I., Shahid, M., Ok, Y.S., Burton, E.D., Wang, H., Shaheen, S.M., Rinklebe, J. and Lüttge, A. (2017) Arsenic removal by perilla leaf biochar in aqueous solutions and groundwater: An integrated spectroscopic and microscopic examination. *Environmental Pollution* (IF 4.358). (JCR Top 20% (Q1) Environmental Sciences: 39/241). (Published online:29 September 2017)
34. Chen, S.S., Sun, Y., Tsang, D.C., Graham, N.J., Ok, Y.S., Feng, Y. and Li, X.D. (2017) Insights into the subsurface transport of As(V) and Se (VI) in produced water from hydraulic fracturing using soil samples from Qingshankou Formation, Songliao Basin, China. *Environmental Pollution*, 222:449-456 (IF 4.358). (JCR Top 20% (Q1) Environmental Sciences: 39/241)
35. Yoo, J.C., Beiyuan, J., Wang, L., Tsang, D.C.W., Baek, K., Bolan, N.S., Ok, Y.S. and Li, X.D. (2017) A combination of ferric nitrate/EDDS-enhanced washing and sludge-derived

biochar stabilization of metal-contaminated soils. *Science of The Total Environment* (IF 4.610) (JCR Top 15% (Q1), Environmental Sciences: 27/241) (Published online:9 November 2017)

36. Vikrant, K., Kim, K.H., Ok, Y.S.*, Tsang, D.C.W., Tsang, Y.F., Giri, B.S. and Singh, R.S. (2017) Engineered/designer biochar for the removal of phosphate in water and wastewater. *Science of The Total Environment* (IF 4.610) (JCR Top 15% (Q1), Environmental Sciences: 27/241) (*Corresponding Author) (Published online:9 November 2017)
37. Niazi, N.K., Bibi, I., Shahid, M., Ok, Y.S., Shaheen, S.M., Rinklebe, J., Wang, H., Murtaza, B., Islam, E., Nawaz, M.F. and Lüttge, A. (2017) 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* (IF 4.610) (JCR Top 15% (Q1), Environmental Sciences: 27/241) (Published online:18 October 2017)
38. Yang, Y., Ok, Y.S., Kim, K.H., Kwon, E.E. and Tsang, Y.F. (2017) Occurrences and removal of pharmaceuticals and personal care products (PPCPs) in drinking water and water/sewage treatment plants: A review. *Science of the Total Environment*, 596-597:303-320 (IF 4.610) (JCR Top 15% (Q1), Environmental Sciences: 27/241)
39. Chen, S.S., Sun, Y., Tsang, D.C.W., Graham, N.J.D., Ok, Y.S., Feng, Y. and Li, X.D. (2017) Potential impact of flowback water from hydraulic fracturing on agricultural soil quality: Metal/metalloid bioaccessibility, Microtox bioassay, and enzyme activities. *Science of the Total Environment*, 579:1419-1426 (IF 4.610) (JCR Top 15% (Q1), Environmental Sciences: 27/241)
40. Lee, J., Choi, D., Kwon, E.E. and Ok, Y.S.* (2017) Functional modification of hydrothermal liquefaction products of microalgal biomass using CO_2. *Energy*, (IF 3.651) (JCR Top 10% (Q1), Thermodynamics: 4/58) (*Corresponding Author) (Published online:22 March 2017)
41. Lee, J., Oh, J.I., Ok, Y.S.* and Kwon, E.E. (2017) Study on susceptibility of CO_2-assisted pyrolysis of various biomass to CO_2. *Energy*, (IF 3.651) (JCR Top 10% (Q1), Thermodynamics: 4/58) (*Corresponding Author) (Published online:2 Feb 2017)
42. Lee, J., Yang, X., Song, H., Ok, Y.S.* and Kwon, E.E. (2017) Effects of carbon dioxide on pyrolysis of peat. *Energy*, 120:929-936 (IF 3.651) (JCR Top 10% (Q1), Thermodynamics: 4/58) (*Corresponding Author)
43. Fang, J., Zhan, L., Ok, Y.S. and Gao, B. (2017) Minireview of potential applications of hydrochar derived from hydrothermal carbonization of biomass. *Journal of Industrial and Engineering Chemistry*, 57: 15-21 (IF 4.841) (JCR Top 10% (Q1), Engineering, Chemical: 14/137) (Published online:24 August 2017)
44. Hasan, Z., Cho, J., Rinklebe, J., Ok, Y.S., Cho, D.W. and Song, H. (2017) Metal organic framework derived Cu-carbon composite: An efficient non-noble metal catalyst for reduction of hexavalent chromium and pendimethalin. *Journal of Industrial and Engineering Chemistry*, 52:331-337 (IF 4.841) (JCR Top 10% (Q1), Engineering, Chemical: 14/137)
45. Oh, J.I., Lee, J., Lee, T., Ok, Y.S., Lee, S.R. and Kwon, E.E. (2017) Strategic CO_2 utilization for shifting carbon distribution from pyrolytic oil to syngas in pyrolysis of food waste. *Journal of CO_2 Utilization*, 20:150-155 (IF 5.503) (JCR Top 10% (Q1), Engineering, Chemical: 11/137)

46. Lee, J., Tsang, Y.F., Kim, S., Ok, Y.S.* and Kwon, E.E. (2017) Energy density enhancement via pyrolysis of paper mill sludge using CO_2. *Journal of CO_2 Utilization*, 17:305-311 (IF 5.503) (JCR Top 10% (Q1), Engineering, Chemical: 11/137) (*Corresponding Author)
47. Lee, J., Lee, T., Ok, Y.S., Oh, J.I. and Kwon, E.E. (2017) Using CO_2 to mitigate evolution of harmful chemical compounds during thermal degradation of printed circuit boards. *Journal of CO_2 Utilization*, 20:66-72 (IF 5.503) (JCR Top 10% (Q1), Engineering, Chemical: 11/137)
48. Li, X., Wang, X., Ok, Y.S., Elliott, J.A.W., Chang, S.X. and Chung, H.J. (2017) Flexible and Self-Healing Aqueous supercapacitors for low temperature applications: Polyampholyte gel electrolytes with biochar electrodes. *Scientific Reports*, 7:1685 (IF 4.259) (JCR Top 15% (Q1), Multidisciplinary Science: 10/64)
49. Chen, X., Ok, Y.S., Mohan, D., Pittman, C.U., Jr. and Dou, X. (2017) The stability and removal of water-dispersed CdSe/CdS core-shell quantum dots from water. *Chemosphere*, 185:926-933 (IF 4.427) (JCR Top 15% (Q1), Environmental Sciences: 34/241)
50. Tack, F.M.G., Rinklebe, J., Ok, Y.S. and Tsang, D.C.W. (2017) International Conference on Heavy Metals in the Environment (ICHMET). *Chemosphere*, 185:94-95 (IF 4.427) (JCR Top 15% (Q1), Environmental Sciences: 34/241)
51. Yu, I.K.M., Tsang, D.C.W., Yip, A.C.K., Chen, S.S., Ok, Y.S. and Poon, C.S. (2017) Valorization of starchy, cellulosic, and sugary food waste into hydroxymethylfurfural by one-pot catalysis. *Chemosphere*, 184:1099-1107 (IF 4.427) (JCR Top 15% (Q1), Environmental Sciences: 34/241)
52. Seshadri, B., Bolan, N.S., Choppala, G., Kunhikrishnan, A., Sanderson, P., Wang, H., Currie, L.D., Tsang, D., Ok, Y.S. and Kim, K. (2017) Potential value of phosphate compounds in enhancing immobilization and reducing bioavailability of mixed heavy metal contaminants in shooting range soil. *Chemosphere*, 184:197-206 (IF 4.427) (JCR Top 15% (Q1), Environmental Sciences: 34/241)
53. Bolan, S., Kunhikrishnan, A., Chowdhury, S., Seshafri, B. and Ok, Y.S. (2017) Comparative analysis of speciation and bioaccessibility of arsenic in rice grains and complementary medicines. *Chemosphere*, 182:433-440 (IF 4.427) (JCR Top 15% (Q1), Environmental Sciences: 34/241)
54. Rizwan, M., Ali, S., Adrees, M., Ibrahim, M., Tsang, D.C.W., Zia-ur-Rehman, M., Zahir, Z.A., Rinklebe, J., Tack, F.M.G. and Ok, Y.S.* (2017) A critical review on effects, tolerance mechanisms and management of cadmium in vegetables. *Chemosphere*, 182:90-105 (IF 4.427) (JCR Top 15% (Q1), Environmental Sciences: 34/241) (*Corresponding Author)
55. Meng, F., Yuan, G., Wei, J., Bi, D., Ok, Y.S. and Wang, H. (2017) Humic substances as a washing agent for Cd-contaminated soils. *Chemosphere*, 181:461-467 (IF 4.427) (JCR Top 15% (Q1), Environmental Sciences: 34/241)
56. Shaheen, S.M., Kwon, E.E., Biswas, J.K., Tack, F.M.G., Ok, Y.S. and Rinklebe, J. (2017) Arsenic, chromium, molybdenum, and selenium: Geochemical fractions and potential mobilization in riverine soil profiles originating from Germany and Egypt. *Chemosphere*, 180:553-563 (IF 4.427) (JCR Top 15% (Q1), Environmental Sciences: 34/241)
57. Qi F., Dong, Z., Naidu, R., Bolan, N.S., Lamb, D., Ok, Y.S., Liu, C., Khan, N., Johir, M.A.H. and Semple, K.T. (2017) Effects of acidic and neutral biochars on properties and

cadmium retention of soils. *Chemosphere*, 180:564-573 (IF 4.427) (JCR Top 15% (Q1), Environmental Sciences: 34/241)

58. Beiyuan, J., Awad, Y.M., Beckers, F., Tsang, D.C.W., Ok, Y.S. and Rinklebe, J. (2017) Mobility and phytoavailability of As and Pb in a contaminated soil using pine sawdust biochar under systematic change of redox conditions. *Chemosphere*, 178:110-118. (IF 4.427) (JCR Top 15% (Q1), Environmental Sciences: 34/241)
59. Igalavithana, A.D., Park, J., Ryu, C., Lee, Y.H., Hashimoto, Y., Huang, L., Kwon, E.E., Ok, Y.S. and Lee, S.S. (2017) Slow pyrolyzed biochars from crop residues for soil metal(loid) immobilization and microbial community abundance in contaminated agricultural soils. *Chemosphere*, 177:157-166. (IF 4.427) (JCR Top 15% (Q1), Environmental Sciences: 34/241)
60. Sun, Y., Lei, C., Khan, E., Chen, S.S., Tsang, D.C.W., Ok, Y.S., Lin, D., Feng, Y. and Li, X. (2017) Nanoscale zero-valent iron for metal/metalloid removal from model hydraulic fracturing wastewater. *Chemosphere*, 176:315-323 (IF 4.427) (JCR Top 15% (Q1), Environmental Sciences: 34/241)
61. Wang, S., Gao, B., Li, Y., Ok, Y.S., Shen, C. and Xue, S. (2017) Biochar provides a safe and value-added solution for hyperaccumulating plant disposal: A case study of *Phytolacca acinosa* Roxb. (*Phytolaccaceae*). *Chemosphere*, 178:59-(IF 4.427) (JCR Top 15% (Q1), Environmental Sciences: 34/241)
62. Chen, S.S, Taylor, J.S., Baek, K., Khan, E., Tsang, D.C.W. and Ok, Y.S. (2017) Sustainability likelihood of remediation options for metal-contaminated soil/sediment. *Chemosphere*, 174:421-427 (IF 4.427) (JCR Top 15% (Q1), Environmental Sciences: 34/241)
63. Lau, A.Y.T., Tsang D.C.W., Graham, N.J.D., Ok, Y.S., Yang, X. and Li, X.D. (2017) Surface-modified biochar in a bioretention system for Escherichia coli removal from stormwater. *Chemosphere*, 169:89-98 (IF 4.427) (JCR Top 15% (Q1), Environmental Sciences: 34/241)
64. Igalavithana, A.D., Lee, S.E., Lee, Y.H., Tsang, D.C., Rinklebe, J., Kwon, E.E. and Ok, Y.S.* (2017) Heavy metal immobilization and microbial community abundance by vegetable waste and pine cone biochar of agricultural soils. *Chemosphere*, 174:593-603 (IF 4.427) (JCR Top 15% (Q1), Environmental Sciences: 34/241) (*Corresponding Author)
65. Sun, Y., Chen, S.S., Tsang, D.C., Graham, N.J., Ok, Y.S., Feng, Y. and Li, X.D. (2017) Zero-valent iron for the abatement of arsenate and selenate from flowback water of hydraulic fracturing. *Chemosphere*, 167:163-170 (IF 4.427) (JCR Top 15% (Q1), Environmental Sciences: 34/241)
66. Qayyum, M.F., ur Rehman, M.Z., Ali, S., Rizwan, M., Naeem, A., Maqsood, M.A., Khalid, H., Rinklebe, J. and Ok, Y.S. (2017) Residual effects of monoammonium phosphate, gypsum and elemental sulfur on cadmium phytoavailability and translocation from soil to wheat in an effluent irrigated field. *Chemosphere*, 39(2):403-415 (IF 4.427) (JCR Top 15% (Q1), Environmental Sciences: 34/241)
67. Beiyuan, J., Tsang, D.C.W., Valix, M., Zhang, W., Yang, X., Ok, Y.S. and Li, X.D. (2017) Selective dissolution followed by EDDS washing of an e-waste contaminated soil: Extraction efficiency, fate of residual metals, and impact on soil environment. *Chemosphere*, 166:489-496 (IF 4.427) (JCR Top 15% (Q1), Environmental Sciences: 34/241)

68. Lu, K., Yang, X., Gielen, G., Bolan, N., Ok, Y.S., Niazi, N.K., Xu, S., Yuan, G., Chen, X., Zhang, X., Liu, D., Song, Z., Liu, X. and Wang, H. (2017) Effect of bamboo and rice straw biochars on the mobility and redistribution of heavy metals (Cd, Cu, Pb and Zn) in contaminated soil. *Journal of Environmental Management*, 186(2):285-292 (IF 4.005) (JCR Top 25% (Q1), Environmental Sciences: 47/241)
69. Mandal, S., Sarkar, B., Bolan, N., Ok, Y.S. and Naidu, R. (2017) Enhancement of chromate reduction in soils by surface modified biochar. *Journal of Environmental Management*, 186(2):277-284 (IF 4.005) (JCR Top 25% (Q1), Environmental Sciences: 47/241)
70. Rinklebe, J., Kumpiene, J., Du Laing, G. and Ok, Y.S. (2017) Biogeochemistry of trace elements in the environment-Editorial to the special issue. *Journal of Environmental Management*, 186:127-130 (IF 4.005) (JCR Top 25% (Q1), Environmental Sciences: 47/241)
71. Seneviratne, M., Weerasundara, L., Ok, Y.S., Rinklebe, J. and Vithanage, M. (2017) Phytotoxicity attenuation in *Vigna radiata* under heavy metal stress at the presence of biochar and N fixing bacteria. *Journal of Environmental Management*, 186(2):293-300 (IF 4.005) (JCR Top 25% (Q1), Environmental Sciences: 47/241)
72. Rehman, M.Z., Rizwan, M., Ali, S., Ok, Y.S., Ishaque, W., Saifullah, Nawaz, M.F., Akmal, F. and Waqar, M. (2017) Remediation of heavy metal contaminated soils by using *Solanum nigrum*: A review. *Ecotoxicology and Environmental Safety*, 143:236 (IF 3.974) (JCR Top 20% (Q1), Environmental Sciences: 49/241)
73. Abbas, T., Rizwan, M., Ali, S., Zia-ur-Rehman, M., Qayyum, M.F., Abbas, F., Hannan, F., Rinklebe, J. and Ok, Y.S. (2017) Effect of biochar on cadmium bioavailability and uptake in wheat (Triticum aestivum L.) grown in a soil with aged contamination. *Ecotoxicology and Environmental Safety*, 140:37-47 (IF 3.974) (JCR Top 20% (Q1), Environmental Sciences: 49/241)
74. Anastopoulos, I., Bhatnagar, A., Hameed, B.H., Ok, Y.S. and Omirou, M. (2017) A review on waste-derived adsorbents from sugar industry for pollutant removal in water and wastewater. *Journal of Molecular Liquids* 240:179-188 (IF 4.513) (JCR Top 10% (Q1), Chemistry, Physical: 37/146)
75. Kim, J., Lee, J., Kim, K.H., Ok, Y.S., Jeon, Y.J. and Kwon, E.E. (2017) Pyrolysis of wastes generated through saccharification of oak tree by using CO_2 as reaction medium. *Applied Thermal Engineering*, 110:335-345. (IF 3.483) (JCR Top 10% (Q1), Mechanics: 10/133)
76. Hasan, Z., Ok, Y.S., Rinklebe, J., Tsang, Y.F., Cho, D.W. and Song, H. (2017) N doped cobalt-carbon composite for reduction of p-nitrophenol and pendimethaline. *Journal of Alloys and Compounds*, 703:118-124 (IF 3.133) (JCR Top 5% (Q1), Metallurgy & Metallurgical Engineering: 5/74)
77. Hong, X., Fang, C., Hui, K.S., Hui, K.N., Zhuang, H., Liu, W. and Shan, S. (2017) Influence of interfering anions on Cu^{2+} and Zn^{2+} ions removal on chestnut outer shell-derived hydrochars in aqueous solution. *RSC Advances*, *7*(81), 51199-51205 (IF 3.108) (JCR (Q2), Chemistry, Multidisciplinary: 59/166)
78. Wang, H., Gao, B., Fang, J., Ok, Y. S., Xue, Y., Yang, K., and Cao, X. (2017) Engineered biochar derived from eggshell-treated biomass for removal of aqueous lead. *Ecological Engineering* (in press) (IF 2.914) (JCR (Q2), Environmental Sciences: 75/229) (Published online:8 July 2017)

79. Shaheen, S.M., Tsadilas, C.D., Niazi, N.K., Hseu, Z.Y., Ok, Y.S., Selim, M. and Rinklebe, J. (2017) 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* (in press) (JCR (Q1), Engineering, Chemial: 31/135) (Published online:26 October 2017)
80. Jien, S.H., Chen, W.C., Ok, Y.S., Awad, Y.M. and Liao, C.S. (2017) Short-term biochar application induced variations in C and N mineralization in a compost-amended tropical soil. *Environmental Science and Pollution Research* (IF 2.800) (JCR (Q2), Environmental Sciences: 82/241) (Published online:1 June 2017)
81. Abbas, T., S., Rizwan, M., Ali,S., Adrees, M., Zia-ur-Rehman, M., Qayyum, M.F., Ok, Y.S. and Murtaza, G. (2017) Effect of biochar on alleviation of cadmium toxicity in wheat (*Triticum aestivum* L.) grown on Cd-contaminated saline soil. *Environmental Science and Pollution Research* (IF 2.800) (JCR (Q2), Environmental Sciences: 82/241) (Published online:10 April 2017)
82. Ali, S., Rizwan, M., Qayyum, M.F., Ok, Y.S., Ibrahim, M., Riaz, M., Arif, M.S., Hafeez, F., Al-Wabel, M.I. and Shahzad, A.N. (2017) Biochar soil amendment on alleviation of drought and salt stress in plants: a critical review. *Environmental Science and Pollution Research*, 24(14):12700-12712 (IF 2.800) (JCR (Q2), Environmental Sciences: 82/241)
83. Wang, L., Chen, S.S., Tsang, D.C.W., Poon, C.S. and Ok, Y.S. (2017) Enhancing anti-microbial properties of wood-plastic composites produced from timber and plastic wastes. *Environmental Science and Pollution Research* 24:12227-12237 (IF 2.800) (JCR (Q2), Environmental Sciences: 82/241)
84. Yang, H. I., Lou, K., Rajapaksha, A. U., Ok, Y.S., Anyia, A. O. and Chang, S. X. (2017) Adsorption of ammonium in aqueous solutions by pine sawdust and wheat straw biochars. *Environmental Science and Pollution Research* (IF 2.800) (JCR (Q2), Environmental Sciences: 82/241) (Published online:22 Feb 2017)
85. Kang, S.W., Park, J.H., Kim, S.H., Seo, D.C., Ok, Y.S., and Cho, J.S. (2017) Establishment of optimal barley straw biochar application conditions for rice cultivation in a paddy field. *Environmental Geochemistry and Health* (IF 2.994) (JCR Top 15% (Q1), Water Resources: 14/90) (Published online: 28 August 2017)
86. Igalavithana, A.D., Farooq, M., Kim, K.H., Lee, Y.H., Qayyum, M.F., Al-Wabel, M.I., Lee, S.S. and Ok, Y.S.* (2017) Determining soil quality in urban agricultural regions by soil enzyme-based index. *Environmental Geochemistry and Health* (IF 2.994) (JCR Top 15% (Q1), Water Resources: 14/90) (Published online: 26 June 2017) (*Corresponding Author)
87. Seneviratne, M., Rajakaruna, N., Rizwan, M., Madawala, H.M.S.P., Ok, Y.S.* and Vithanage M. (2017) Heavy metal-induced oxidative stress on seed germination and seedling development: a critical review. *Environmental Geochemistry and Health* (IF 2.994) (JCR Top 15% (Q1), Water Resources: 14/90) (Published online: 15 June 2017) (*Corresponding Author)
88. Melo, T.M., Bottlinger, M., Schulz, E., Leandro, W.M., de Aguiar Filho, A.M., Ok, Y.S. and Rinklebe, J. (2017) Effect of biosolid hydrochar on toxicity to earthworms and brine shrimp. *Environmental Geochemistry and Health* (IF 2.994) (JCR Top 15% (Q1), Water Resources: 14/90) (Published online: 15 June 2017)
89. Awad, Y.M., Vithanage, M., Niazi, N.K., Rizwan, M., Rinklebe, J., Yang, J.E., Ok, Y.S.* and Lee, S.S. (2017) Potential toxicity of trace elements and nanomaterials to Chinese cabbage in arsenic- and lead-contaminated soil amended with biochars. *Environmental*

Geochemistry and Health (IF 2.994) (JCR Top 15% (Q1), Water Resources: 14/90) (Published online: 26 May 2017) (*Corresponding Author)

90. Zhang, Y., Fan, J., Fu, M., Ok, Y.S., Hou, Y. and Cai, C. (2017) Adsorption antagonism and synergy of arsenate(V) and cadmium(II) onto Fe-modified rice straw biochars. *Environmental Geochemistry and Health* (in press(IF 2.994) (JCR Top 15% (Q1), Water Resources: 14/90) (Published online: 26 May 2017)
91. Guan, Z., Tang, X.Y., Yang, J.E., Ok, Y.S., Xu, Z., Nishimura, T. and Reid, B.J. (2017) A review of source tracking techniques for fine sediment within a catchment. *Environmental Geochemistry and Health* (IF 2.994) (JCR Top 15% (Q1), Water Resources: 14/90) (Published online: 28 April 2017)
92. Al-Wabel, M.I., Usman, A.R.A., Al-Farraj, A.S., Ok, Y.S., Abduljabbar, A., Al-Faraj, A.I. and Sallam, A.S. (2017) Date palm waste biochars alter a soil respiration, microbial biomass carbon, and heavy metal mobility in contaminated mined soil. *Environmental Geochemistry and Health* (IF 2.994) (JCR Top 15% (Q1), Water Resources: 14/90) (Published online: 19 April 2017)
93. Sarkar, S.K., Mondal, P., Biswas, J.K., Kwon, E.E., Ok, Y.S. and Rinklebe, J. (2017) Trace elements in surface sediments of the Hooghly (Ganges) estuary: distribution and contamination risk assessment. *Environmental Geochemistry and Health* (IF 2.994) (JCR Top 15% (Q1), Water Resources: 14/90) (Published online: 11 April 2017)
94. Vithanage, M., Seneviratne, M., Ahmad, M., Sarkar, B. and Ok, Y.S.* (2017) Contrasting effects of engineered carbon nanotubes on plants: A review. *Environmental Geochemistry and Health* (IF 2.994) (JCR Top 15% (Q1), Water Resources: 14/90) (Published online: 25 April 2017) (*Corresponding Author)
95. Vithanage, M., Herath, I., Almaroai, Y.A., Rajapaksha, A.U., Huang, L., Sung, J.K., Lee, S.S. and Ok, Y.S. * (2017) Effects of carbon nanotube and biochar on bioavailability of Pb, Cu and Sb in multi-metal contaminated soil. *Environmental Geochemistry and Health* (IF 2.994) (JCR Top 15% (Q1), Water Resources: 14/90) (Published online: 22 March 2017) (*Corresponding Author)
96. Ahmad, M., Ahmad, M., Usman, A.R.A., Al-Faraj, A.S., Abduljabbar, A., Ok, Y.S. and Al-Wabel, M.I. (2017) Date palm waste-derived biochar composites with silica and zeolite: synthesis, characterization and implication for carbon stability and recalcitrant potential. *Environmental Geochemistry and Health* (IF 2.994) (JCR Top 15% (Q1), Water Resources: 14/90) (Published online: 23 March 2017)
97. Singh, M., Sarkar, B., Hussain, S., Ok, Y.S., Bolan, N.S. and Churchman, G.J. (2017) Influence of physico-chemical properties of soil clay fractions on the retention of dissolved organic carbon. *Environmental Geochemistry and Health* (IF 2.994) (JCR Top 15% (Q1), Water Resources: 14/90) (Published online: 28 March 2017)
98. Shaheen, S.M., Antoniadis, V., Kwon, E.E., Biswas, J.K., Wang, H.L., Ok, Y.S. and Rinklebe, J. (2017) Biosolids application affects the competitive sorption and lability of cadmium, nickel, lead, and Zinc in fluvial and calcareous soils. *Environmental Geochemistry and Health* (IF 2.994) (JCR Top 15% (Q1), Water Resources: 14/90) (Published online: 03 March 2017)
99. Nam, T.H., Kim, L., Jeon, H.J., Kim, K., Ok, Y.S., Choi, S.D. and Lee, S.E. (2017) Biomarkers indicate mixture toxicities of fluorene and phenanthrene with endosulfan toward earthworm (*Eisenia fetida*). *Environmental Geochemistry and Health*, 39:307-317 (IF 2.994) (JCR Top 15% (Q1), Water Resources: 14/90)

100. Jiang, S., Nguyen, T.A.H., Rudolph, V., Yang, H., Zhang, D., Ok, Y.S. and Huang, L. (2017) Characterization of hard- and softwood biochars pyrolyzed at high temperature. *Environmental Geochemistry and Health*, 39:403-415 (IF 2.994) (JCR Top 15% (Q1), Water Resources: 14/90)
101. Bandara, T., Herath, I., Kumarathilaka, P., Hseu, Z.Y., Ok, Y.S. and Vithanage, M. (2017) Efficacy of woody biomass and biochar for alleviating heavy metal bioavailability in serpentine soil. *Environmental Geochemistry and Health*, 39:391-401 (IF 2.994) (JCR Top 15% (Q1), Water Resources: 14/90)
102. Lim, J.E., Sung, J.K., Sarkar, B., Wang, H., Hashimoto, Y., Tsang, D.C.W. and Ok, Y.S. (2017) Impact of natural and calcined starfish (*Asterina pectinifera*) on the stabilization of Pb, Zn and As in contaminated agricultural soil. *Environmental Geochemistry and Health*, 39:431-441 (IF 2.994) (JCR Top 15% (Q1), Water Resources: 14/90)
103. Beiyuan, J., Tsang, D.C.W., Yip, A.C.X., Zhang, W., Ok, Y.S. and Li, X.D. (2017) Risk mitigation by waste-based permeable reactive barriers for groundwater pollution control at e-waste recycling sites. *Environmental Geochemistry and Health*, 39:75-88 (IF 2.994) (JCR Top 15% (Q1), Water Resources: 14/90)
104. Rizwan, M., Ali, S., Qayyum, M.F., Ok, Y.S., Zia-ur-Rehman, M., Abbas, Z. and Hannan, F. (2017) Use of Maize (*Zea mays* L.) for phytomanagement of Cd-contaminated soils: A critical review. *Environmental Geochemistry and Health*, 39:259-277 (IF 2.994) (JCR Top 15% (Q1), Water Resources: 14/90)
105. APoucke, R.V., Ainsworth, J., Maeseele, M., Ok, Y.S., Meers, E. and Tack, F.M.G. (2017) Chemical stabilization of Cd-contaminated soil using biochar. *Applied Geochemistry* (in press) (IF 2.581) (JCR (Q2), Geochemistry & Geophysics: 29/84) (Published online:4 September 2017)
106. Alam, M.S., Swaren, L., von Gunten, K., Cossio, M., Bishop, B., Robbins, L.J., Hou, D., Flynn, S.L., Ok, Y.S., Konhauser, K.O. and Alessi, D.S. (2017). Application of surface complexation modeling to trace metals uptake by biochar-amended agricultural soils. *Applied Geochemistry* (in press) (IF 2.581) (JCR (Q2), Geochemistry & Geophysics: 29/84) (Published online:24 August 2017)
107. Alotaibi, H.S., Usman, A.R., Abduljabbar, A.S., Ok, Y.S., Al-Faraj, A.I., Sallam, A.S. and Al-Wabel, M.I. (2017) Carbon mineralization and biochemical effects of short-term wheat straw in crude oil contaminated sandy soil. *Applied Geochemistry* (in press) (IF 2.581) (JCR (Q2), Geochemistry&Geophysics: 29/84) (Published online:1 March 2017)
108. Hussain, M., Farooq, M., Nawaz, A., Al-Sadi, A.M., Solaiman, Z.M., Alghamdi, S.S., Ammara, U., Ok, Y.S. and Siddique, K.H.M. (2017) Biochar for crop production*: Potential benefits and risk*s. *Journal of Soils and Sediments*, 17:685-716 (IF 2.627) (JCR (Q2), Soil Science: 11/34)
109. Ahmad M., Lee, S.S., Lee, S.E., Al-Wabel, M.I., Tsang, D.C.W. and Ok, Y.S.* (2017) Biochar-induced changes in soil properties affected immobilization/mobilization of metals/metalloids in contaminated soils. *Journal of Soils and Sediments*, 17:717-730 (IF 2.627) (JCR (Q2), Soil Science: 11/34) (*Corresponding Author)
110. Awad, Y.M., Lee, S.S., Ok, Y.S. and Kuzyakov, Y. (2017) Effects of biochar and polyacrylamide on decomposition of soil organic matter and ^{14}C-labeled alfalfa residues. *Journal of Soils and Sediments*, 17:611-620 (IF 2.627) (JCR (Q2), Soil Science: 11/34)
111. Awad, Y.M., Pausch, J., Ok, Y.S.* and Kuzyakov, Y. (2017) Interactive effects of biochar and polyacrylamide on decomposition of maize rhizodeposits: Implications from

^{14}C labeling and microbial metabolic quotient. *Journal of Soils and Sediments*, 17:621-631 (IF 2.627) (JCR (Q2), Soil Science: 11/34) (*Corresponding Author)

112. Meier, S., Curaqueo, G., Khan, N., Bolan, N., Cea, M., Eugenia, G.M., Cornejo, P., Ok, Y.S. and Borie, F. (2017) Chicken-manure-derived biochar reduced bioavailability of copper in a contaminated soil. *Journal of Soils and Sediments*, 17:741-750 (IF 2.627) (JCR (Q2), Soil Science: 11/34)
113. Herath, I., Iqbal, M.C.M., Al-Wabel, M.I., Abduljabbar, A., Ahmad, M., Usman, A.R.A., Ok, Y.S. and Vithanage, M. (2017) Bioenergy-derived waste biochar for reducing mobility, bioavailability and phytotoxicity of chromium in anthropized tannery soil. *Journal of Soils and Sediments*, 17:731-740 (IF 2.627) (JCR (Q2), Soil Science: 11/34)
114. Bandara, T., Herath, I., Kumarathilaka, P., Seneviratne, M., Seneviratne, G., Rajakaruna, N., Vithanage, M and Ok, Y.S. (2017) Role of woody biochar and fungal-bacterial co-inoculation on enzyme activity and metal immobilization in serpentine soil. *Journal of Soils and Sediments*, 17:665-673 (IF 2.627) (JCR (Q2), Soil Science: 11/34)
115. Mehmood, T., Bibi, I., Shahid, M., Niazi, N.K., Murtaza, B., Wang, H., Ok, Y.S., Sarkar, B., Javed, M.T. and Murtaza, G. (2017) Effect of compost addition on arsenic uptake, morphological and physiological attributes of maize plants grown in contrasting soils. *Journal of Geochemical Exploration*, 178:83-91 (IF 2.464) (JCR (Q2), Geochemistry & Geophysics: 32/84)
116. Yang, X., Wang, H., Strong, P.J., Xu, S., Liu, S., Lu, K., Sheng, K., Guo, J., Che, L., He, L., Ok, Y.S., Yuan, G., Shen, Y. and Chen, X. (2017) Thermal properties of biochars derived from waste biomass generated by agricultural and forestry sectors. *Energies*, 10(4): 469 (IF 2.262) (JCR (Q2), Energy & Fuels: 45/92)
117. Yang, J.E. and Ok, Y.S. (2017) Kinetics of Hg adsorption onto noncrystalline Al hydroxide as influenced by low-molecular-weight organic ligands. *Archives of Agronomy and Soil Science*, 63(1):124-135 (IF 2.137) (JCR (Q1), Agronomy: 17/83)
118. Ibrahim, A., Usman, A.R.A., Al-Wabel, M.I., Nadeem, M., Ok, Y.S. and Al-Omran, A. (2017) Effects of conocarpus biochar on hydraulic properties of calcareous sandy soil: Influence of particle size and application depth. *Archives of Agronomy and Soil Science*, 63(2):185-197 (IF 2.137) (JCR (Q1), Agronomy: 17/83)
119. Igalavithana, A.D., Lee, S.S., Niazi, N.K., Lee, Y.H., Kim, K.H., Park, J.H., Moon, D.H. and Ok, Y.S. (2017) Assessment of soil health in urban agriculture: Soil enzymes and microbial properties. *Sustainability*, 9:310 (IF 1.789) (JCR (Q3), Environmental Sciences: 119/229) (*Corresponding Author)
120. Igalavithana, A.D., Ok, Y.S., Niazi, N.K., Rizwan, M., Al-Wabel, M.I., Usman, A.R.A., Moon, D.H. and Lee, S.S. (2017) Effect of corn residue biochar on the hydraulic properties of sandy loam soil. *Sustainability*, 9:266 (IF 1.789) (JCR (Q3), Environmental Sciences: 119/229) (*Corresponding Author)
121. Sethupathi, S., Zhang, M., Rajapaksha, A.U., Lee, S.R., Mohamad Nor, N., Mohamed, A.R., Al-Wabel, M., Lee, S.S. and Ok, Y.S.* (2017) Biochars as potential adsorbers of CH_4, CO_2 and H_2S. *Sustainability*, 9:121 (IF 1.789) (JCR (Q3), Environmental Sciences: 119/229) (*Corresponding Author)
122. Niazi, N.K., Bibi, I., Fatimah, A., Shahid, M., Javed, M.T., Wang, H., Ok, Y.S., Bashir, S., Murtaza, B., Saqib, Z.A. and Shakoor, M.B. (2017) Phosphate-assisted phytoremediation of arsenic by *Brassica napus* and *Brassica juncea*: Morphological and physiological response. *International Journal of Phytoremediation* 19(7):670-678 (IF 1.770) (JCR (Q2), Environmental Sciences: 121/229)

123. Ashraf, A., Bibi, I., Niazi, N.K., Ok, Y.S., Murtaza, G., Shahid, M., Kunhikrishnan, A., Li, D. and Mahmood, T. (2017) Chromium(VI) sorption efficiency of acid-activated banana peel over organo-montmorillonite in aqueous solutions. *International Journal of Phytoremediation*, 19(7):605-613 (IF 1.770) (JCR (Q2), Environmental Sciences: 96/225)
124. Ahmad, M., Ahmad, M., Usman, A.R., Al-Faraj, A.S., Ok, Y.S., Hussain, Q., Abduljabbar, A. and Al-Wabel, M.I. (2017) An efficient phosphorus scavenging from aqueous solution using magnesiothermally modified bio-calcite. *Environmental Technology*, 33:1271-1278 (IF 1.751) (JCR (Q3), Environmental Sciences: 122/229)
125. Kim, H.S., Kim, K.R., Yang, J.E., Ok, Y.S., Kim, W.I., Kunhikrishnan A. and Kim, K.H. (2017) Amelioration of horticultural growing media properties through rice hull biochar incorporation. *Waste and Biomass Valorization*, 8:483-492 (IF 1.337) (JCR (Q4), Environmental Science: 162/229)
    Karunanithi, R., Ok, Y.S., Dharmarajan, R., Ahmad, M., Seshadri, B., Bolan, N. and Naidu, R. (2017) Sorption, kinetics and thermodynamics of phosphate sorption onto soybean stover derived biochar. *Environmental Technology & Innovation*, 8:113-125.
126. Igalavithana, A.D., Mandal, S., Niazi, N.K., Vithanage, M., Parikh, S.J., Mukome, F.N., Rizwan, M., Oleszczuk, P., Al-Wabel, M., Bolan, N. and Tsang, D.C., (2017). Advances and future directions of biochar characterization methods and applications. *Critical Reviews in Environmental Science and Technology*, *47*(23), 2275-2330 (IF 7.683) (JCR Top 2.5% (Q1), Environmental Sciences: 16/229)

Year 2016 (Selected)

1. Stefaniuk, M., Oleszczuk, P. and Ok, Y.S. (2016) Review on nano zerovalent iron (nZVI): From synthesis to environmental applications. *Chemical Engineering Journal*, 287:618-632 (IF 6.735) (JCR Top 5% (Q1), Engineering, Chemical: 7/137)
2. Ahmad, M., Ok, Y.S.*, Rajapaksha, A.U., Lim, J.E., Kim, B.Y., Ahn, J.H., Lee Y.H., Al-Wabel, M.I., Lee S.E. and Lee S.S. (2016) Lead and copper immobilization in a shooting range soil using soybean stover- and pine needle-derived biochars: Chemical, microbial and spectroscopic assessments. *Journal of Hazardous Materials*, 301:179-186 (IF 6.065) (*Co-first author) (JCR Top 5% (Q1), Engineering, Civil: 1/125) (HCP (Google Scholar: 14 citations & Scopus: 7 citations))
3. Inyang, M.I., Gao, B., Yao, Y., Xue, Y., Zimmerman, A., Mosa, A., Pullammanappallil, P., Ok, Y.S. and Cao, X. (2016) A review of biochar as a low-cost adsorbent for aqueous heavy metal removal. *Critical Reviews in Environmental Science and Technology*, 46(4):406-433 (IF 7.683) (JCR Top 2.5% (Q1), Environmental Sciences: 16/229)
4. Rizwan, M., Ali, S., Rizvi, H., Rinklebe, J., Tsang, D.C.W., Meers, E., Ok, Y.S. and Ishaque, W. (2016) Phytomanagement of heavy metals in contaminates soils using sunflower-A review. *Critical Reviews in Environmental Science and Technology*, 46:1498-1528 (IF 7.683) (JCR Top 2.5% (Q1), Environmental Sciences: 16/229)
5. Mandal, S., Sarkar, B., Bolan, N., Novak, J., Ok, Y.S., Zwieten, L.V., Singh, B.P., Kirkham, M.B., Choppala, G., Spokas, K. and Naidu, R. (2016) Designing advanced biochar products for maximinzing greenhouse gas mitigation potential. *Critical Reviews in Environmental Science and Technology*, 46:1367-1401 (IF 7.683) (JCR Top 2.5% (Q1), Environmental Sciences: 16/229)

6. Shakoor, M.B., Niazi, N.K., Bibi, I., Murtaza, G., Kunhikrishnan, A., Seshadri, B., Shahid, M., Ali, S., Bolan, N.S., Ok, Y.S., Abid, M. and Ali, F. (2016) Remediation of arsenic-contaminated water using agricultural wastes as biosorbents. *Critical Reviews in Environmental Science & Technology*, 46(5):467-499 (IF 7.683) (JCR Top 15% (Q1), Environmental Sciences: 16/229)
7. Yu, I.K.M., Tsang, D.C.W., Yip, A.C.K., Chen, S.S., Ok, Y.S. and Poon, C.S. (2016) Valorization of food waste into hydroxymethylfurfural: Dual role of metal ions in successive conversion steps. *Bioresource Technology*, 219:338-347 (IF 5.807) (JCR Top 10% (Q1), Agricultural Engineering: 1/14)
8. Poucke, R.V., Nachenius, R.W., Agbo, K.E., Hensgen, F., Bühle, L., Wachendorf, M., Ok, Y.S., Tack, F.M.G., Prins, W., Ronsse, F. and Meers, E. (2016) Mild hydrothermal conditioning prior to torrefaction and slow pyrolysis of low-value biomass. *Bioresource Technology*, 217:104-112 (IF 5.807) (JCR Top 10% (Q1), Agricultural Engineering: 1/14)
9. Cho, D.W., Lee, J., Yoon, K., Ok, Y.S., Kwon, E.E. and Song, H. (2016) Pyrolysis of $FeCl_3$-pretreated spent coffee grounds using CO_2 as a reaction medium. *Energy Conversion and Management*, 127:437-442 (IF 5.589) (JCR Top 5% (Q1), Mechanics: 4/133)
10. Bolan, S., Naidu, R., Kunhikrishnan, A., Seshadri, B., Ok, Y.S., Palanisami, T., Dong, M. and Clark, I. (2016) Speciation and bioavailability of lead in complementary medicines. *Science of the Total Environment*, 539:304-312 (IF 4.610) (JCR Top 15% (Q1), Environmental Sciences: 27/241)
11. Yan, Y., Qi, F., Balaji, S., Xu, Y., Hou, J., Ok, Y.S., Dong, X., Li, Q., Sun, X., Wang, L. and Bolan, N. (2016) Utilization of phosphorus loaded alkaline residue to immobilize lead in a shooting range soil. *Chemosphere*, 162:315-323 (IF 4.427) (JCR Top 15% (Q1), Environmental Sciences: 34/241)
12. Beiyuan, J., Tsang, D.C.W., Ok, Y.S., Zhang, W., Yang, X., Baek, K. and Li, X.D. (2016) Integrating EDDS-enhanced washing with low-cost stabilization of metal-contaminated soil from an e-waste recycling site. *Chemosphere*, 159:426-432 (IF 4.427) (JCR Top 15% (Q1), Environmental Sciences: 34/241)
13. Shih, Y., Lien, H.L., Yan, W. and Ok, Y.S. (2016) Special issue on thermodynamics and kinetics of emerging contaminants in the environment. *Chemosphere*, 155:257-258 (IF 4.427) (JCR Top 15% (Q1), Environmental Sciences: 34/241)
14. Novak, J., Ro, K., Ok, Y.S., Sigua, G., Spokas, K., Uchimiya, S. and Bolan, N. (2016) Biochars multifunctional role as a novel technology in the agricultural, environmental, and industrial sectors. *Chemosphere*, 142:1-3 (IF 4.427) (JCR Top 15% (Q1), Environmental Sciences: 34/241)
15. Jiang, S., Huang, L., Nguyen, T.A.H., Ok, Y.S., Rudolph, V., Yang, H. and Zhang, D. (2016) Copper and zinc adsorption by softwood and hardwood biochars under elevated sulphate-induced salinity and acidic pH conditions. *Chemosphere*, 142:64-71 (IF 4.427) (JCR Top 15% (Q1), Environmental Sciences: 34/241)
16. Park, J.H., Ok, Y.S., Kim, S.H., Cho, J.S., Heo, J.S., Delaune, R.D. and Seo, D.C. (2016) Competitive adsorption of heavy metals onto sesame straw biochar in aqueous solutions. *Chemosphere*, 142:77-83 (IF 4.427) (JCR Top 15% (Q1), Environmental Sciences: 34/241)
17. Mandal, S., Thangarajan, R., Bolan, N.S., Sarkar, B., Khan, N., Ok, Y.S. and Naidu, R. (2016) Biochar-induced concomitant decrease in ammonia volatilization and increase in

nitrogen use efficiency by wheat. *Chemosphere*, 142:120(IF 4.427) (JCR Top 15% (Q1), Environmental Sciences: 34/241)

18. Kim, H.S., Kim, K.R., Yang, J.E., Ok, Y.S., Owens, G., Nehls, T., Wessolek, G. and Kim, K.H. (2016) Effect of biochar on reclaimed tidal land soil properties and maize (*Zea mays* L.) response. *Chemosphere*, 142:153-159 (IF 4.427) (JCR Top 15% (Q1), Environmental Sciences: 34/241)
19. Mayakaduwa, S.S., Kumarathilake, P., Herath, I., Ahmad, M., Al-Wabel, M., Ok, Y.S., Usman, A., Abduljabbar, A. and Vithanage, M. (2016) Equilibrium and kinetic mechanisms of woody biochar on aqueous glyphosate removal. *Chemosphere*, 144:2516-2521 (IF 4.427) (JCR Top 15% (Q1), Environmental Sciences: 34/241)
20. Rajapaksha, A.U., Chen, S.S., Tsang D.C.W., Zhang, M., Vithanage, M., Mandal, S., Gao, B., Bolan, N.S. and Ok, Y.S.* (2016) Engineered/designer biochar for contaminant removal/immobilization from soil and water: Potential and implication of biochar modification. *Chemosphere*, 148:276-291 (IF 4.427) (JCR Top 15% (Q1), Environmental Sciences: 34/241) (*Corresponding Author)
21. Vithanage, M., Mayakaduwa, S.S., Herath, I., Ok, Y.S. and Mohan, D. (2016) Kinetics, thermodynamics and mechanistic studies of carbofuran removal using biochars from tea waste and rice husks. *Chemosphere*, 150:781-789 (IF 4.427) (JCR Top 15% (Q1), Environmental Sciences: 34/241)
22. Cho, D.W., Lee, J., Ok, Y.S., Kwon, E.E. and Song, H. (2016) Fabrication of a novel magnetic carbon nanocomposite adsorbent via pyrolysis of sugar. *Chemosphere*, 163:305-312 (IF 4.427) (JCR Top 15% (Q1), Environmental Sciences: 34/241)
23. Chaney, R.L., Kim, W.I., Yang, J.E. and Ok, Y.S. (2016) Integrated management strategies for arsenic and cadmium in rice paddy environments. *Geoderma*, 270:1-2 (IF 3.740) (JCR Top 15% (Q1), Soil Science: 5/34).
24. Ahmad, M., Ok, Y.S.*, Kim, B.Y., Ahn, J.H., Lee, Y.H., Zhang, M., Moon, D.H., Al-Wabel, M.I. and Lee, S.S. (2016) Impact of soybean stover- and pine needle-derived biochars on Pb and As mobility, microbial community, and carbon stability in a contaminated agricultural soil. *Journal of Environmental Management*, 166:131-139 (IF 4.005) (JCR Top 25% (Q1), Environmental Sciences: 47/241) (*Co-first author)
25. Rehman, M.Z., Rizwan, M., Ali, S., Fatima, N., Yousaf, B., Naeem, A., Sabir, M., Ahmad, H.R. and Ok, Y.S. (2016) Contrasting effects of biochar, compost and farm manure on alleviation of nickel toxicity in maize (*Zea mays* L.) in relation to plant growth, photosynthesis and metal uptake. *Ecotoxicology and Environmental Safety*, 133:218-225 (IF 3.974) (JCR Top 20% (Q1), Environmental Sciences: 49/241)
26. Rizwan, M., Ali, S., Abbas, T., Zia-ur-Rehman, M., Hannan, F., Keller, C., Al-Wabel, M.I. and Ok, Y.S. (2016) Cadmium minimization in wheat: A critical review. *Ecotoxicology and Environmental Safety*, 130:43-53 (IF 3.974) (JCR Top 20% (Q1), Environmental Sciences: 49/241)
27. Oleszczuk, P., Ćwikła-Bundyra, W., Bogusz, A., Skwarek, E. and Ok, Y.S. (2016) Characterization of nanoparticles of biochars from different biomass. *Journal of Analytical and Applied Pyrolysis,* 121:165-172 (IF 3.471) (JCR Top 20% (Q1), Chemistry, Analytical: 14/76)
28. Park, J.H., Kim, S.H., Delaune, R.D., Kang, B.H., Kang, S.W., Cho, J.S., Ok, Y.S. and Seo, D.C. (2016) Enhancement of phosphorus removal with near-neutral pH utilizing

steel and ferronickel slags for application of constructed wetlands. *Ecological Engineering*, 95:612-621 (IF 2.914) (JCR (Q2), Environmental Sciences: 75/229)

29. Cheng, Q., Huang, Q., Khan, S., Liu, Y., Liao, Z., Li, G. and Ok, Y.S. (2016) Adsorption of Cd by peanut husks and peanut husk biochar from aqueous solutions. *Ecological Engineering*, 87:240-245 (IF 2.914) (JCR (Q2), Environmental Sciences:75/229)
30. Younis, U., Malik, S.A., Rizwan, M., Qayyum, M.F., Ok, Y.S., Shah, M.H.R., Rehman, R.A. and Ahmad, N. (2016) Biochar enhances the cadmium tolerance in spinach (*Spinacia oleracea*) through modification of Cd uptake and physiological and biochemical attributes. *Environmental Science and Pollution Research*, 23(21):21385-(IF 2.800) (JCR (Q2), Environmental Sciences: 82/241)
31. Wang, H. and Ok, Y.S.* (2016) Contaminated Land, Ecological Assessment, and Remediation Conference Series (CLEAR 2014): Environmental remediation with advanced materials. *Environmental Science and Pollution Research*, 23:949-950 (IF 2.800) (JCR (Q2), Environmental Sciences: 82/241) (*Corresponding Author)
32. Liu, C., Wang, H., Tang, X., Guan, Z., Reid, B. J., Rajapaksha, A.U., Ok, Y.S. and Sun, H. (2016) Biochar increased water holding capacity but accelerated organic carbon leaching from a sloping farmland soil in China. *Environmental Science and Pollution Research*, 23:995-1006 (IF 2.800) (JCR (Q2), Environmental Sciences: 82/241)
33. Yong, S.K., Skinner, W.M., Bolan, N.S., Lombi, E., Kunhikrishnan, A. and Ok Y.S. (2016) Sulfur crosslinks from thermal degradation of chitosan dithiocarbamate derivatives and thermodynamic study for sorption of copper and cadmium from aqueous system. *Environmental Science and Pollution Research*, 23:1050-1059 (IF 2.800) (JCR (Q2), Environmental Sciences: 82/241)
34. Jeon, H.J., Lee, Y.H., Mo, H.H., Kim, M.J., Al-Wabel, M.I., Kim, Y., Cho, K., Kim, T.W., Ok, Y.S.* and Lee, S.E. (2016) Chlorpyrifos-induced biomarkers in Japanese medaka (*Oryzias latipes*). *Environmental Science and Pollution Research*, 23:1071-1080 (IF 2.800) (JCR (Q2), Environmental Sciences: 82/241) (*Corresponding Author)
35. Kim, S.H., Cho, J.S., Park, J.H., Heo, J.S., Ok, Y.S., Delaune, R.D. and Seo, D.C. (2016) Long-term performance of vertical-flow and horizontal-flow constructed wetlands as affected by season, N load, and operating stage for treating nitrogen from domestic sewage. *Environmental Science and Pollution Research*, 23:1108-1119 (IF 2.800) (JCR (Q2), Environmental Sciences: 82/241)
36. Rizwan, M., Ali, S., Qayyum, M.F., Ibrahim, M., Zia-ur-Rehman, M., Abbas, T. and Ok, Y.S. (2016) Mechanisms of biochar-mediated alleviation of toxicity of trace elements in plants: A critical review. *Environmental Science and Pollution Research*, 23:2230-2248 (IF 2.800) (JCR (Q2), Environmental Sciences: 82/241)
37. Moon, D.H., Cheong, K.H., Koutsospyros, A., Chang Y.Y., Hyun, S., Ok, Y.S. and Park, J.H. (2016) Assessment of waste oyster shells and coal mine drainage sludge for the stabilization of As-, Pb-, and Cu-contaminated soil. *Environmental Science and Pollution Research*, 23:2362-2370 (IF 2.800) (JCR (Q2), Environmental Sciences: 82/241)
38. Wong, M.H., Ok, Y.S. and Naidu, R. (2016) Biological-waste as resource, with a focus on food waste. *Environmental Science and Pollution Research*, 23:7071-7073 (IF 2.800) (JCR (Q2), Environmental Sciences: 82/241)
39. Rizwan, M., Ali, S., Adrees, M., Rizvi., H., Zia-ur-Rehman., M., Hannan, F., Qayyum, M. F., Hafeez, F. and Ok, Y.S. (2016) Cadmium stress in rice: toxic effects, tolerance mechanisms, and management: A critical review. *Environmental Science and Pollution Research*, 23(18):17859-17879 (IF 2.800) (JCR (Q2), Environmental Sciences: 82/241)

40. Mayakaduwa, S.S., Herath, I., Ok, Y.S., Mohan, D. and Vithanage, M. (2016) Insights into aqueous carbofuran removal by modified and non-modified rice husk biochars. *Environmental Science and Pollution Research* (IF 2.800) (JCR (Q2), Environmental Sciences: 82/241) (Published online: 23 August 2016)
41. Usman, A.R.A., Ahmad, M., El-Mahrouky, M., Al-Omran, A., Ok, Y.S., Sh. Sallam, A., El-Naggar, A.H. and Al-Wabel, M.I. (2016) Chemically modified biochar produced from Conocarpus waste increases NO_3 removal from aqueous solutions. *Environmental Geochemistry and Health*, 38:511-521 (IF 2.994) (JCR Top 15% (Q1), Water Resources: 14/90)
42. Lou, K., Rajapaksha, A.U., Ok, Y.S. and Chang, S.X. (2016) Sorption of copper(II) from synthetic oil sands process-affected water (OSPW) by pine sawdust biochars: Effects of pyrolysis temperature and steam activation. *Journal of Soils and Sediments*, 8:2081-2089 (IF 2.627) (JCR (Q2), Soil Science: 11/34)
43. Rajapaksha, A.U., Vithanage, M., Lee, S.S., Seo, D.C., Tsang, D.C.W. and Ok, Y.S.* (2016) Steam activation of biochars facilitates kinetics and pH-resilience of sulfamethazine sorption. *Journal of Soils and Sediments*, 16:889-895 (IF 2.627) (JCR (Q2), Soil Science: 11/34) (*Corresponding Author)
44. Park, J.H., Cho, J.S., Ok, Y.S., Kim, S.H., Heo, J.S., Delaune, R.D., Seo, D.C. (2016) Comparison of single and competitive metal adsorption by pepper stem biochar. *Archives of Agronomy and Soil Science*, 62(5):617-632 (IF 2.137) (JCR (Q2), Agronomy: 34/83)
45. Chen, X., Dou, X., Mohan, D., Jr., C.U.P., Hu, M. and Ok, Y.S. (2016) Effects of surface iron hydroxyl group site densities on arsenate adsorption by iron oxide nanocomposites. *Nanoscience and Nanotechnology Letters,* 8:1020-1027 (IF 1.889) (JCR (Q3), Materials Science, Multidisciplinary: 133/275)
46. Abid, M., Niazi, N.K., Bibi, I., Farooqi, A., Ok, Y.S., Kunhikrishnan, A., Ali, F., Ali, S., Igalavithana, A.D. and Arshad, M. (2016) Arsenic(V) biosorption by charred orange peel in aqueous environments. *International Journal of Phytoremediation*, 18:442-449 (IF 1.770) (JCR (Q2), Environmental Sciences: 96/225)
47. Usman, A.R.A., Al-Wabel, M.I., Ok, Y.S., Al-Harbi, A., Wahb-Allah, M., El-Naggar, A. M., Ahmad, M., Al-Faraj, A. and Al-Omran, A. (2016) *Conocarpus* biochar induces changes in soil nutrient availability and tomato growth under saline irrigation. *Pedosphere*, 26:27-38 (IF 1.734) (JCR (Q3), Soil Science: 20/34)
48. El-Naggar, A.H., Alzhrani, A.K.R., Ahmad, M., Usman, A.R.A., Mohan, D., Ok, Y.S. and Al-Wabel, M.I. (2016) Preparation of activated and non-activated carbon from *Conocarpus* pruning waste as low-cost adsorbent for removal of heavy metal ions from aqueous solution. *BioResources*, 11(1):1092-1107 (IF 1.334) (JCR (Q1), Materials Science, Paper & Wood: 5/21)
49. Awad, Y.M., Ok, Y.S., Igalavithana, A.D., Lee, Y.H., Sonn, Y.K., Usman, A.R.A., Al-Wabel, M.I. and Lee, S.S. (2016) Sulphamethazine in poultry manure changes carbon and nitrogen mineralization in soils. *Chemistry and Ecology*, 32:899-918 (IF: 1.463) (JCR (Q3), Environmental Sciences: 153/229)
50. Li, Y., Mohan, D., Pittman Jr., C.U., Ok, Y.S. and Dou, X. (2016) Removal of antimonate and antimonite from water by schwertmannite granules. *Desalination and Water Treatment*, 57:25639-25652 (IF 1.272) (JCR (Q3), Engineering, Chemical: 74/135)
51. Kang, S.W., Park, J.W., Seo, D.C., Ok, Y.S., Park, K.D., Choi, I.W. and Cho, J.S. (2016) Effect of biochar application on rice yield and greenhouse gas emission under different

nutrient conditions from paddy soil. *Journal of Environmental Engineering*, 142(10) (IF 1.125) (JCR (Q2), Engineering, Civil: 58/126)

52. Park, J.H., Kim, S.H., Kang, S.W., Kang, B.H., Cho, J.S., Heo, J.S., Delaune, R. D., Ok, Y.S. and Seo, D.C. (2016) Adsorption of Cd, Cu and Zn from aqueous solutions onto ferronickel slag under different potentially toxic metal combination. *Water Science and Technology*, 73(5):993-999 (IF 1.197) (JCR (Q3), Water Resources: 61/88)
53. Mayakaduwa, S.S., Vithanage, M., Karunarathna, A., Mohan, D. and Ok, Y..S. (2016) Interface interactions between insecticide carbofuran and tea waste biochars produced at different pyrolysis temperatures. *Chemical Speciation & Bioavailability*, 28(1-4):110-118 (IF 1.054) (JCR (Q4), Environmental Sciences: 182/229) (*Corresponding Author)
54. Jin, D.F., Xu, Y.Y., Zhang, M., Jung, Y.S. and Ok, Y.S. (2016) Comparative evaluation for the sorption capacity of four carbonaceous sorbents to phenol. *Chemical Speciation & Bioavailability*, 28(1-4):18-25 (IF 1.054) (JCR (Q4), Environmental Sciences: 182/229) (*Corresponding Author)
55. Lou, K., Rajapaksha, A.U., Ok, Y.S. and Chang, S.X. (2016) Pyrolysis temperature and steam activation effects on sorption of phosphate on pine sawdust biochars in aqueous solutions. *Chemical Speciation & Bioavailability*, 28(1-4):42-50 (IF 1.054) (JCR (Q4), Environmental Sciences: 182/229)
56. Moon, Y.S., Jeon, H.J., Nam, T.H., Choi, S.D., Park, B.J., Ok, Y.S. and Lee, S.E. (2016) Acute toxicity and gene responses induced by endosulfan in zebrafish (*Danio rerio*) embryos. *Chemical Speciation & Bioavailability*, 28(1-4):103-109 (IF 1.054) (JCR (Q4), Environmental Sciences: 182/229)
57. Zhang, M., Xu, L.H., Lee, S.S. and Ok, Y.S. (2016) Sorption of polycyclic aromatic hydrocarbons (PAHs) by dietary fiber extracted from wheat bran. *Chemical Speciation & Bioavailability*, 28(1-4):13-17 (IF 1.054) (JCR (Q4), Environmental Sciences: 182/229)
58. Kang, S.W., Seo, D.C., Cheong, Y.H., Park, J.W., Park, J.H., Kang, H.W., Park, K.D., Ok, Y.S. and Cho, J.S. (2016) Effect of barley straw biochar application on greenhouse gas emissions from upland soil for Chinese cabbage cultivation in short-term laboratory experiments. *Journal of Mountain Science*, 13(4):693-702 (IF 1.016) (JCR (Q4), Environmental Sciences: 185/229)
59. Naeem, A., Saifullah, Rehman, M.Z., Akhtar, T., Ok, Y.S. and Rengel, Z. (2016) Genetic variation in cadmium accumulation and tolerance among wheat cultivars at seedling stage. *Communications in Soil Science and Plant Analysis*, 47(5):554-562 (IF 0.589) (JCR (Q3), Agronomy: 57/83)
60. Alam, M.S., Cossio, M., Robinson, L., Wang, X., Kenney, J.P.L., Konhauser, K.O., MacKenzie, M.D., Ok, Y.S. and Alessi, D.S. (2016) Removal of organic acids from water using biochar and petroleum coke. *Environmental Technology & Innovation*, 6:141-154

Year 2015 (Selected)

1. Rajapaksha, A.U., Vithanage, M., Ahmad, M., Seo, D.C., Cho, J.S., Lee, S.E., Lee, S.S. and Ok, Y.S.* (2015) Enhanced sulfamethazine removal by steam-activated invasive plant-derived biochar. *Journal of Hazardous Materials*, 290:43-50 (IF 6.065) (JCR Top 5% (Q1), Engineering, Civil: 1/125) (*Corresponding Author)

2. Saderson, P., Naidu, R., Bolan, N., Lim, J.E. and Ok, Y.S. (2015) Chemical stabilisation of lead in shooting range soils with phosphate and magnesium oxide: Synchrotron investigation. *Journal of Hazardous Materials*, 299:395-403 (IF 6.065) (JCR Top 5% (Q1), Engineering, Civil: 1/125)
3. Karunanithi, R., Szogi, A.A., Bolan, N., Naidu, R., Loganathan, P., Hunt, P.G., Vanotti, M.B., Saint, C.P., Ok, Y.S. and Krishnamoorthy, S. (2015) Phosphorus recovery and reuse from waste streams. *Advances in Agronomy*, 131:173-250 (IF 4.381) (JCR Top 5% (Q1), Agronomy: 3/83)
4. Kim, J.H., Ok, Y.S., Choi, G.H. and Park, B.J. (2015) Residual perfluorochemicals in the biochar from sewage sludge. *Chemosphere*, 134:435-437 (IF 4.427) (JCR Top 15% (Q1), Environmental Sciences: 34/241)
5. El-Naggar, A.H., Usman, A.R.A., Al-Omran, A., Ok, Y.S., Ahmad, M. and Al-Wabel, A.I. (2015) Carbon mineralization and nutrient availability in calcareous sandy soils amended with woody waste biochar. *Chemosphere*, 138:67-73 (IF 4.427) (JCR Top 15% (Q1), Environmental Sciences: 34/241)
6. Vithanage, M., Rajapaksha, A.U., Ahmad, M., Uchimiya, M., Dou, X., Alessi, D.S. and Ok, Y.S.* (2015) Mechanisms of antimony adsorption onto soybean stover-derived biochar in aqueous solutions. *Journal of Environmental Management*, 151:443-449 (IF 4.005) (JCR Top 25% (Q1), Environmental Sciences: 47/241) (*Corresponding Author)
7. Lehmann, J., Kuzyakov, Y., Pan, G and Ok Y.S. (2015) Biochars and the plant-soil interface. *Plant and Soil*, 395:1-5 (IF 2.969) (JCR Top 15% (Q1), Agronomy: 9/83)
8. Usman, A.R.A., Abduljabbar, A., Vithanage, M., Ok, Y.S., Ahmad, M., Ahmad, M., Elfaki, J., Abdulazeem, S.S. and Al-Wabel, M.I. (2015) Biochar production from date palm waste: Charring temperature induced changes in composition and surface chemistry. *Journal of Analytical and Applied Pyrolysis*, 115:392-400 (IF 3.471) (JCR Top 15% (Q1), Spectroscopy: 5/43)
9. Ahmed, M.B.M., Rajapaksha, A.U., Lim, J.E., Vu, N.T., Kim, I.S., Kang, H.M., Lee, S.S. and Ok, Y.S.* (2015) Distribution and accumulative pattern of tetracyclines and sulfonamides in edible vegetables of cucumber, tomato, and lettuce. *Journal of Agricultural and Food Chemistry*, 63(2):398-405 (IF 2.857) (JCR Top 25% (Q1), Agriculture, Multidisciplinary: 3/57) (*Corresponding Author)
10. Vithanage, M., Rajapaksha, A.U., Zhang, M., Thiele-Bruhn, S., Lee, S.S. and Ok, Y.S.* (2015) Acid-activated biochar increased sulfamethazine retention in soils. *Environmental Science and Pollution Research*, 22:2175-2186 (IF 2.800) (JCR (Q2), Environmental Sciences: 82/241) (*Corresponding Author)
11. Moon, D.H., Wazne, M., Cheong, K.H., Chang, Y.Y., Baek, K., Ok, Y.S. and Park, J.H. (2015) Stabilization of As-, Pb-, and Cu-contaminated soil using calcined oyster shells and steel slag. *Environmental Science and Pollution Research*, 22:11162-11169 (IF 2.800) (JCR (Q2), Environmental Sciences: 82/241)
12. Park, J.H., Kim, S.H., Delaune, R.D., Cho, J.S., Heo, J.S., Ok, Y.S. and Seo, D.C. (2015) Enhancement of nitrate removal in constructed wetlands utilizing a combined autotrophic and heterotrophic denitrification technology for treating hydroponic wastewater containing high nitrate and low organic carbon concentrations. *Agricultural Water Management*, 162:1-14 (IF 2.603) (JCR Top 15% (Q1), Water Resources: 10/85)
13. Jung, K.W., Hwang, M.J., Ahn, K.H., and Ok, Y.S. (2015) Kinetic study on phosphate removal from aqueous solution by biochar derived from peanut shell as renewable

adsorptive media. *International Journal of Environmental Science and Technology*, 12:3363-3372 (IF 2.344) (JCR (Q2), Environmental Sciences: 79/225)

14. Rajapaksha, A.U., Ahmad, M., Vithanage, M., Kim, K.R., Chang, J. Y., Lee, S.S. and Ok, Y.S.* (2015) The role of biochar, natural iron oxides, and nanomaterials as soil amendments for immobilizing metals in shooting range soil. *Environmental Geochemistry and Health*, 37:931-942 (IF 2.994) (JCR Top 15% (Q1), Water Resources: 14/90) (*Corresponding Author)
15. Nam, T.H., Jeon, H.J., Mo, H.H., Cho, K., Ok, Y.S.* and Lee, S.E. (2015) Determination of biomarkers for polycyclic aromatic hydrocarbons (PAHs) toxicity to earthworm (*Eisenia fetida*). *Environmental Geochemistry and Health*, 37:943-951 (IF 2.994) (JCR Top 15% (Q1), Water Resources: 14/90) (*Corresponding Author)
16. Park, J.H., Ok, Y.S., Kim, S.H., Cho, J.S., Heo, J.S., Delaune, R.D. and Seo, D.C. (2015) Evaluation of phosphorus adsorption capacity of sesame straw biochar on aqueous solution: Influence of activation methods and pyrolysis temperatures. *Environmental Geochemistry and Health*, 37:969-983 (IF 2.994) (JCR Top 15% (Q1), Water Resources: 14/90)
17. Qambrani, N.A., Jung, Y.S., Yang, J.E., Ok, Y.S. and Oh, S.E. (2015) Application of half-order kinetics to sulfur-utilizing autotrophic denitrification for groundwater remediation. *Environmental Earth Sciences*, 73:3445-3450 (IF 1.569) (JCR Top 25% (Q1), Environmental Science: 144/229)
18. Kim, H.S., Kim, K.R., Kim, H.J., Yoon, J.H., Yang, J.E., Ok, Y.S., Owens, G. and Kim, K.H. (2015) Effect of biochar on heavy metal immobilization and uptake by lettuce (*Lactuca sativa* L.) in agricultural soil. *Environmental Earth Sciences*, 74:1249-1259 (IF 1.569) (JCR Top 25% (Q1), Environmental Science: 144/229)
19. Lee, S.S., Shah, H.S., Awad, Y., Kumar, S. and Ok, Y.S.* (2015) Synergy effects of biochar and polyacrylamide on plants growth and soil erosion control. *Environmental Earth Sciences*, 74:2463-2473 (IF 1.569) (JCR Top 25% (Q1), Environmental Science: 144/229) (*Corresponding Author)
20. Awad, Y.M., Kim, K.R., Kim, S.C., Kim, K., Lee, S.R., Lee, S.S. and Ok, Y.S.* (2015) Monitoring antibiotic residues and corresponding antibiotic resistance genes in an agroecosystem. *Journal of Chemistry* 2015:Article ID 974843 (IF 1.300) (JCR (Q3), Chemistry, Multidisciplinary: 105/166) (*Corresponding Author)
21. Zhang, M., Ahmad, M., Al-Wabel, M.I., Vithanage, M., Rajapaksha, A.U., Kim, H.S., Lee, S.S. and Ok, Y.S.* (2015) Adsorptive removal of trichloroethylene in water by crop residue biochars pyrolyzed at contrasting temperatures: Continuous fixed-bed experiments. *Journal of Chemistry*, 10:1434-1435 (IF 1.300) (JCR (Q3), Chemistry, Multidisciplinary: 105/166) (*Corresponding Author)
22. Fontanals, N., James, R.A., Ok, Y.S., Balakrishnan, M. and Efird, J.T. (2015) Occurrence and remediation of pollutants in the environment. *Journal of Chemistry*, 1:1-2 (IF 1.300) (JCR (Q3), Chemistry, Multidisciplinary: 105/166) (*Corresponding Author)
23. Park, J.H., Ok, Y.S., Kim, S.H., Kang, S.W., Cho, J.S., Heo, J.S., Delaune, R.D. and Seo, D.C. (2015) Characteristics of biochars derived from fruit tree pruning wastes and their effects on lead adsorption. *Journal of the Korean Society for Applied Biological Chemistry*, 58:751-760 (IF 0.750) (JCR (Q3), Agricultural Engineering: 10/14)
24. Ok, Y.S., Chang, S.X., Gao, B. and Chung, H.J. (2015) SMART biochar technology-A shifting paradigm towards advanced materials and healthcare research. *Environmental Technology & Innovation*, 4:206-209

Year 2014 (Selected)

1. Zhao, X., Dou, X., Mohan, D., Pittman, C.U., Ok, Y.S. and Jin, X. (2014) Antimonate and antimonite adsorption by a polyvinyl alcohol-stabilized granular adsorbent containing nanoscale zero-valent iron. *Chemical Engineering Journal*, 247:250-257 (IF 6.735) (JCR Top 5% (Q1), Engineering, Chemical: 7/137)
2. Mohan, D., Sarswat, A., Ok, Y.S. and Pittman, C.U. (2014) Organic and inorganic contaminants removal from water with biochar, a renewable, low cost and sustainable adsorbent-A critical review. *Bioresource Technology*, 160:191-202 (IF 5.807) (JCR Top 10% (Q1), Agricultural Engineering: 1/14) (11th Most Downloaded Article, September and October 2014; 14th Most Downloaded Article, January to December 2014 full year; 20th Most Downloaded Article, January to December 2015 full year to present)
3. Rajapaksha, A.U., Vithanage, M., Zhang, M., Ahmad, M., Mohan, D., Chang, S.X. and Ok, Y.S.* (2014) Pyrolysis condition affected sulfamethazine sorption by tea waste biochars. *Bioresource Technology*, 166:303-308 (IF 5.807) (JCR Top 10% (Q1), Agricultural Engineering: 1/14) (* Corresponding Author)
4. Wong, J.W.C., Nelles, M., Ok, Y.S. and Kumar, S. (2014) Special issue on advance biological treatment technologies for sustainable waste management: Selected papers from "International Conference on Solid Waste-Innovation in Technology and Management (ICSWHK2013)", 5-9 May 2013, Hong Kong Convention and Exhibition Centre, Hong Kong SAR. *Bioresource Technology*, 168:1 (IF 5.807) (JCR Top 10% (Q1), Agricultural Engineering: 1/14)
5. Choppala, G., Saifullah, Bolan, N., Bibi, S., Iqbal, M., Rengel, Z., Kunhikrishnan, A., Ashwath, N. and Ok, Y.S. (2014) Cellular mechanisms in higher plants governing tolerance to cadmium toxicity. *Critical Reviews in Plant Sciences*, 33:374-391 (IF 6.162) (JCR Top 5% (Q1), Plant Science: 10/222)
6. Ok, Y.S. and Jeon, C. (2014) Selective adsorption of the gold-cyanide complex from waste rinse water using Dowex 21K XLT resin. *Journal of Industrial and Engineering Chemistry*, 25:1308-1312 (IF 4.841) (JCR Top 10% (Q1), Engineering, Chemical: 14/137)
7. Ahmad, M., Rajapaksha, A.U., Lim, J.E., Zhang, M., Bolan, N., Mohan, D., Vithanage, M., Lee, S.S. and Ok, Y.S.* (2014) Biochar as a sorbent for contaminant management in soil and water: A review. *Chemosphere*, 99:19-33 (IF 4.427) (JCR Top 15% (Q1), Environmental Sciences: 34/241) (*Corresponding Author) (3rd Hottest Article, January to December 2014 full year; 6th Most Downloaded Article, September and October 2014, 3rd Hottest Article, January to March 2015; 3rd Most Downloaded Article, July to September 2015; 4th Most Downloaded Article, January to December 2015 full year to present)
8. Rajapaksha, A.U., Vithanage, M., Lim, J.E., Ahmed, M.B.M., Zhang, M., Lee, S.S. and Ok, Y.S.* (2014) Invasive plant-derived biochar inhibits sulfamethazine uptake by lettuce in soil. *Chemosphere*, 111:500-504 (IF 4.427) (JCR Top 15% (Q1), Environmental Sciences: 34/241) (*Corresponding Author)
9. Ahmad, M., Lee, S.S., Lim, J.E., Lee, S.E., Cho, J.S., Moon, D.H., Hashimoto, Y. and Ok, Y.S.* (2014) Speciation and phytoavailability of lead and antimony in a small arms range soil amended with mussel shell, cow bone and biochar: EXAFS spectroscopy and chemical extractions. *Chemosphere*, 95:433-441 (IF 4.427) (JCR Top 15% (Q1),

Environmental Sciences: 34/241) (*Corresponding Author) (HCP (Google Scholar: 65 citations & Scopus: 48 citations))

10. Arnhold, S., Lindner, S., Lee, B., Martin, E., Kettering, J., Nguyen, T.T., Koellner, T., Ok, Y.S. and Huwe, B. (2014) Conventional and organic farming: Soil erosion and conservation potential for row crop cultivation. *Geoderma*, 219-220:89-105 (IF 3.740) (JCR Top 15% (Q1), Soil Science: 5/34).
11. Vithanage, M., Rajapaksha, A.U., Tang, X., Thiele-Bruhn, S., Kim, K.H., Lee, S.E. and Ok, Y.S.* (2014) Sorption and transport of sulfamethazine in agricultural soils amended with invasive-plant-derived biochar. *Journal of Environmental Management*, 141:95-103 (IF 4.005) (JCR Top 25% (Q1), Environmental Sciences: 47/241) (*Corresponding Author)
12. Shope, C.L., Maharjan, G.R., Tenhunen, J., Seo, B., Kim, K., Riley, J., Arnhold, S., Koellner, T., Ok, Y.S., Peiffer, S., Kim, B., Park, J.H. and Huwe, B. (2014) Using the SWAT model to improve process descriptions and define hydrologic partitioning in South Korea. *Hydrology and Earth System Sciences*, 18:539-557 (IF 3.990) (JCR Top 5% (Q1), Water Resources: 4/85)
13. Lim, S.D., Hwang, J.G., Han, A.R., Han, A.R., Park, Y.C., Lee, C., Ok, Y.S. and Jang, C.S. (2014) Positive regulation of rice RING E3 ligase OsHIR1 in arsenic and cadmium uptakes. *Plant Molecular Biology*, 85:4-5 (IF 3.905) (JCR Top 10% (Q1), Plant Sciences: 21/209)
14. Hassan, S.H.A., Gad El-Rab, S.M.F., Rahimnejad, M., Ghasemi, M., Joo, J.H., Sik-Ok, Y., Kim, I.S., Oh, S.E. (2014) Electricity generation from rice straw using a microbial fuel cell. *International Journal of Hydrogen Energy*, 39:9490-9496 (IF 3.582) (JCR (Q2), Chemistry, Physical: 45/145)
15. Ahmad, M., Moon, D.H., Vithanage, M., Koutsospyros, A., Lee, S.S., Yang, J.E., Jeon, C. and Ok, Y.S.* (2014) Production and use of biochar from buffalo-weed (*Ambrosia trifida* L.) for trichloroethylene removal from water. *Journal of Chemical Technology and Biotechnology*, 89:150-157 (IF 3.135) (JCR Top 20% (Q1), Engineering, Chemical: 25/135) (*Corresponding Author)
16. Moon, D.H., Yang, J.E., Cheong, K.H., Koutsospyros, A., Park, J.H, Lim, K.J., Kim, S.C., Kim, R.Y. and Ok, Y.S. (2014) Assessment of natural and calcined starfish for the amelioration of acidic soil. *Environmental Science and Pollution Research*, 21:9931-9938 (IF 2.800) (JCR Top 20% (Q2), Environmental Sciences: 82/241)
17. Moon, D.H., Chang, Y.Y., Ok, Y.S., Cheong, K.H., Koutsospyros, A. and Park, J.H. (2014) Amelioration of acidic soil using various renewable waste resources. *Environmental Science and Pollution Research*, 21:774-780 (IF 2.800) (JCR (Q2), Environmental Sciences: 82/241)
18. Zhang, M. and Ok, Y.S. (2014) Biochar soil amendment for sustainable agriculture with carbon and contaminant sequestration. *Carbon Management*, 5(3):255-257 (IF 2.092) (JCR (Q2), Environmental Sciences: 95/225)
19. Awad, Y.M., Kim, S.C., Abd El-Azeem, S.A.M., Kim, K.H, Kim, K.R., Kim, K., Jeon, C., Lee, S.S. and Ok, Y.S.* (2014) Veterinary antibiotics contamination in water, sediment, and soil near a swine manure composting facility. *Environmental Earth Sciences*, 71:1433-1440 (IF 1.569) (JCR Top 25% (Q1), Environmental Science: 144/229) (*Corresponding Author)

20. Saifullah, Sarwar, N., Bibi, S., Ahmad, M. and Ok, Y.S. (2014) Effectiveness of zinc application to minimize cadmium toxicity and accumulation in wheat (*Triticum aestivum* L.). *Environmental Earth Sciences*, 71:1663-1672 (IF 1.569) (JCR Top 25% (Q1), Environmental Science: 144/229)
21. Almaroai, Y.A., Usman, A.R.A., Ahmad, M., Moon, D.H., Cho, J.S., Joo, Y.K., Jeon, C., Lee, S.S. and Ok, Y.S.* (2014) Effects of biochar, cow bone, and eggshell on Pb availability to maize in contaminated soil irrigated with saline water. *Environmental Earth Sciences*, 71:1289-1296 (IF 1.569) (JCR Top 25% (Q1), Environmental Science: 144/229) (*Corresponding Author)
22. Vithanage, M., Rajapaksha, A.U., Wijesekara, H., Weerarathne, N. and Ok, Y.S.* (2014) Effects of soil type and fertilizer on As speciation in rice paddy contaminated with As-containing pesticide. *Environmental Earth Sciences*, 71:837-847 (IF 1.569) (JCR Top 25% (Q1), Environmental Science: 144/229) (*Corresponding Author)
23. Almaroai, Y.A., Vithanage, M., Rajapaksha, A.U., Lee, S.S., Dou, X., Lee, Y.H., Sung, J.K. and Ok, Y.S.* (2014) Natural and synthesised iron-rich amendments for As and Pb immobilisation in agricultural soil. *Chemistry and Ecology*, 30:267-279 (IF 1.463) (JCR (Q3), Environmental Sciences: 153/229) (*Corresponding Author)
24. Zhang, M., Ahmad, M., Lee, S.S., Xu, L.H. and Ok, Y.S.* (2014) Sorption of polycyclic aromatic hydrocarbons (PAHs) to lignin: Effects of hydrophobicity and temperature. *Bulletin of Environmental Contamination and Toxicology*, 93:84-88 (IF 1.412) (JCR (Q3), Environmental Sciences: 158/229) (*Corresponding Author)
25. Choi, B., Lim, J.E., Sung, J.K., Jeon, W.T., Lee, S.S., Oh, S.E., Yang, J.E. and Ok, Y.S.* (2014) Effect of rapeseed green manure amendment on soil properties and rice productivity. *Communications in Soil Science and Plant Analysis*, 45:751-764 (IF 0.589) (JCR (Q3), Environmental Sciences: 57/83) (*Corresponding Author)

Year 2013 (Selected)

1. Usman, A.R.A., Almaroai, Y.A., Ahmad, M., Vithanage, M. and Ok, Y.S.* (2013) Toxicity of synthetic chelators and metal availability in poultry manure amended Cd, Pb and As contaminated agricultural soil. *Journal of Hazardous Materials*, 262:1022-1030 (IF 6.065) (JCR Top 5% (Q1), Engineering, Civil: 1/125) (*Corresponding Author)
2. Ahmad, M., Lee, S.S., Rajapaksha, A.U., Vithanage, M., Zhang, M., Cho, J.S., Lee, S.E. and Ok, Y.S.* (2013) Trichloroethylene adsorption by pine needle biochars produced at various pyrolysis temperatures. *Bioresource Technology*, 143:615-622 (IF 5.807) (JCR Top 10% (Q1), Agricultural Engineering: 1/14) (*Corresponding Author)
3. Rajapaksha, A.U., Vithanage, M., Ok, Y.S. and Oze, C. (2013) Cr(VI) formation related to Cr(III)-muscovite and birnessite interactions in ultramafic environments. *Environmental Science & Technology*, 47:9722-9729 (IF 6.198) (JCR (Q1) Top 10%, Engineering, Environmental: 4/49)
4. Vithanage, M., Rajapaksha, A.U., Dou, X., Bolan, N.S., Yang, J.E. and Ok, Y.S.* (2013) Surface complexation modeling and spectroscopic evidence of antimony adsorption on iron-oxide-rich red earth soils. *Journal of Colloid and Interface Science*, 406:217-224 (IF 4.233) (JCR (Q2), Chemistry, Physical: 35/145) (*Corresponding Author)
5. Moon, D.H., Cheong, K.H., Khim, J., Wazne, M., Hyun, S., Park, J.H., Chang, Y.Y. and Ok, Y.S. (2013) Stabilization of Pb^{2+} and Cu^{2+} contaminated firing range soil using

calcined oyster shells and waste cow bones. *Chemosphere*, 91:1349-1354 (IF 4.427) (JCR Top 15% (Q1), Environmental Sciences: 34/241)

6. Jung, K., Chang, S.X., Ok, Y.S. and Arshad, M.A. (2013) Critical loads and H^+ budgets of forest soils affected by air pollution from oil sands mining in Alberta, Canada. *Atmospheric Environment*, 69:56-64 (IF 3.629) (JCR Top 20% (Q1), Environmental Sciences: 49/229)
7. Shope, C.L., Bartsch, S., Kim, K., Kim, B., Tenhunen, J., Peiffer, S., Park, J.H., Ok, Y.S., Fleckenstein, J. and Koellner, T. (2013) A weighted, multi-method approach for accurate basin-wide streamflow estimation in an ungauged watershed. *Journal of Hydrology*, 494:72-82 (IF 3.483) (JCR Top 5% (Q1), Engineering, Civil: 8/125)
8. Awad, Y.M., Blagodatskaya, E., Ok, Y.S.* and Kuzyakov, Y. (2013) Effects of polyacrylamide, biopolymer and biochar on the decomposition of ^{14}C-labeled maize residues and on their stabilization in soil aggregates. *European Journal of Soil Science*, 64:488-499 (IF 3.475) (JCR Top 10% (Q1), Soil Science: 5/34) (*Corresponding Author)
9. Ahmad, M., Lee, S.S., Oh, S.E., Mohan, D., Moon, D.H., Lee, Y.H. and Ok, Y.S.* (2013) Modeling adsorption kinetics of trichloroethylene onto biochars derived from soybean stover and peanut shell wastes. *Environmental Science and Pollution Research*, 20:8364-8373 (IF 2.800) (JCR (Q2), Environmental Sciences: 82/241) (*Corresponding Author)
10. Moon, D.H., Park, J.W., Chang, Y.Y., Ok, Y.S., Lee, S.S., Ahmad, M., Koutsospyros, A., Park, J.H. and Baek, K. (2013) Immobilization of lead in contaminated firing range soil using biochar. *Environmental Science and Pollution Research*, 20:8464-8471 (IF 2.800) (JCR (Q2), Environmental Sciences: 82/241)
11. Lee, S.S., Lim, J.E., Abd El-Azeem, S.A.M., Choi, B., Oh, S.E., Moon, D.H. and Ok, Y.S.* (2013) Heavy metal immobilization in soil near abandoned mines using eggshell waste and rapeseed residue. *Environmental Science and Pollution Research*, 20:1719-1726 (IF 2.800) (JCR (Q2), Environmental Sciences: 82/241) (*Corresponding Author)
12. Qambrani, N.A., Jung, S.H., Ok, Y.S., Kim, Y.S. and Oh, S.E. (2013) Nitrate-contaminated groundwater remediation by combined autotrophic and heterotrophic denitrification for sulfate and pH control: Batch tests. *Environmental Science and Pollution Research*, 20:9084-9091 (IF 2.800) (JCR (Q2), Environmental Sciences: 82/241)
13. Yang, J.E., Skogley, E.O., Ahmad, M., Lee, S.S. and Ok, Y.S.* (2013) Carbonaceous resin capsule for vapor-phase monitoring of volatile hydrocarbons in soil: Partitioning and kinetic model verification. *Environmental Geochemistry and Health*, 35:715-725 (IF 2.994) (JCR Top 15% (Q1), Water Resources: 14/90) (*Corresponding Author)
14. Moon, D.H., Park, J.W., Cheong, K.H., Hyun, S., Koutsospyros, A., Park, J.H. and Ok, Y.S. (2013) Stabilization of lead and copper contaminated firing range soil using calcined oyster shells and fly ash. *Environmental Geochemistry and Health*, 35:705-714 (IF 2.994) (JCR Top 15% (Q1), Water Resources: 14/90)
15. Almaroai, Y.A., Usman, A.R.A., Ahmad, M., Kim, K.R., Vithanage, M. and Ok, Y.S.* (2013) Role of chelating agents on release kinetics of metals and their uptake by maize from chromated copper arsenate-contaminated soil. *Environmental Technology*, 34:747-755 (IF 1.751) (JCR (Q3), Environmental Sciences: 122/229) (*Corresponding Author)
16. Lee, K.Y., Moon, D.H., Lee, S.H., Kim, K.W., Cheong, K.H., Park, J.H., Ok, Y.S. and Chang, Y.Y. (2013) Simultaneous stabilization of arsenic, lead, and copper in

contaminated soil using mixed waste resources. *Environmental Earth Sciences*, 69:1813-1820 (IF 1.569) (JCR Top 25% (Q1), Environmental Science: 144/229)

17. Lim, J.E., Ahmad, M., Usman, A.R.A., Lee, S.S., Jeon, W.T., Oh, S.E., Yang, J.E. and Ok, Y.S.* (2013) Effects of natural and calcined poultry waste on Cd, Pb and As mobility in contaminated soil. *Environmental Earth Sciences*, 69:11-20 (IF 1.569) (JCR Top 25% (Q1), Environmental Science: 144/229) (*Corresponding Author)
18. Abd El-Azeem, S.A.M., Ahmad, M., Usman, A.R.A., Kim, K.R., Oh, S.E., Lee, S.S., Ok, Y.S.* (2013) Changes of biochemical properties and heavy metal bioavailability in soil treated with natural liming materials. *Environmental Earth Sciences*, 70:3411-3420 (IF 1.569) (JCR Top 25% (Q1), Environmental Science: 144/229) (*Corresponding Author)
19. Kettering, J., Ruidisch, M., Gaviria, C., Ok, Y.S. and Kuzyakov, Y. (2013) Fate of fertilizer ^{15}N in intensive ridge cultivation with plastic mulching under a monsoon climate. *Nutrient Cycling in Agroecosystem*s, 95:57-72 (IF 1.490) (JCR (Q3), Soil Science: 21/34)
20. Lee, S.S., Abd El-Azeem, S.A.M., Lim, J.E., Rajapaksha, A.U., Kim, K.R., Lee, Y.H., Lee, Y.B., Chang, Y.Y. and Ok, Y.S.* (2013) Efficacy of rapeseed residue and eggshell waste on enzyme activity and soil quality in rice paddy. *Chemistry and Ecology*, 29:501-510 (IF 1.463) (JCR (Q3), Environmental Sciences: 153/229) (*Corresponding Author)
21. Lee, S.S., Chang, S.X., Chang, Y.Y., Ok, Y.S.* (2013) Commercial versus synthesized polymers for soil erosion control and growth of Chinese cabbage. *SpringerPlus*, 2:534 (IF 1.130) (JCR (Q2), Multidisciplinary Science: 30/64) (*Corresponding Author)
22. Ahmad, M., Moon, D.H., Wazne, M., Kim, H.J., Lee, Y.H. and Ok, Y.S.* (2013) Effects of natural and calcined oyster shells on antimony solubility in shooting range soil. *Journal of the Korean Society for Applied Biological Chemistry*, 56:461-464 (IF 0.750) (JCR (Q3), Agricultural Engineering: 10/14) (*Corresponding Author)
23. Oh, S.J., Yun, H.S., Oh, S.M., Kim, S.C., Kim, R.Y., Seo, Y.H., Lee, K.S., Ok, Y.S. and Yang, J.E. (2013) Effect of fly ash fertilizer on paddy soil quality and rice growth. *Journal of Applied Biological Chemistry*, 56(4):229-234 (IF 0.750)
24. Choi, I.W., Seo, D.C., Han, M.J., Delaune, R.D., Ok, Y.S., Jeon, W.T., Lim, B.J., Cheong, Y.H., Kang, H.W. and Cho, J.S. (2013) Accumulation and toxicity of germanium in cucumber under different types of germaniums. *Communications in Soil Science and Plant Analysis*, 44:3006-3019 (IF 0.589) (JCR (Q3), Agronomy: 57/83)

Year 2012 (Selected)

1. Ahmad, M., Lee, S.S., Dou, X., Mohan, D., Sung, J.K., Yang, J.E. and Ok, Y.S.* (2012) Effects of pyrolysis temperature on soybean stover- and peanut shell-derived biochar properties and TCE adsorption in water. *Bioresource Technology*, 118:536-544 (IF 5.807) (JCR Top 10% (Q1), Agricultural Engineering: 1/14) (*Corresponding Author)
2. Ahmad, M., Usman, A.R.A., Lee, S.S., Kim, S.C., Joo, J.H., Yang, J.E. and Ok, Y.S.* (2012) Eggshell and coral wastes as low cost sorbents for the removal of Pb^{2+}, Cd^{2+} and Cu^{2+} from aqueous solutions. *Journal of Industrial and Engineering Chemistry*, 18:198-204 (IF 4.841) (JCR Top 10% (Q1), Engineering, Chemical: 14/137) (*Corresponding Author) (12^{th} Hottest Article, January to December 2012 full year)
3. Usman, A.R.A., Lee, S.S., Awad, Y.M., Lim, K.J., Yang, J.E. and Ok, Y.S.* (2012) Soil pollution assessment and identification of hyperaccumulating plants in chromated copper

arsenate (CCA) contaminated sites, Korea. *Chemosphere*, 87:872-878 (IF 4.427) (JCR Top 15% (Q1), Environmental Sciences: 34/241) (*Corresponding Author)

4. Kim, K.R., Owens, G., Ok, Y.S., Park, W.K., Lee, D.B. and Kwon, S.I. (2012) Decline in extractable antibiotics in manure-based composts during composting. *Waste Management*, 32(1):110-116 (IF 4.030) (JCR Top 20% (Q1), Environmental Sciences: 37/229)
5. Ahmad, M., Lee, S.S., Yang, J.E., Ro, H.M., Lee, Y.H. and Ok, Y.S.* (2012) Effects of soil dilution and amendments (mussel shell, cow bone, and biochar) on Pb availability and phytotoxicity in military shooting range soil. *Ecotoxicology and Environmental Safety*, 79:225-231 (IF 3.974) (JCR Top 20% (Q1), Environmental Sciences: 49/241) (*Corresponding Author)
6. Wu, L., Ok, Y.S., Xu, L.X. and Kuzyakov, Y. (2012) Effects of anionic polyacrylamide on maize growth: A short term ^{14}C labeling study. *Plant and Soil*, 350:311-322 (IF 2.952) (JCR Top 15% (Q1), Soil Science: 5/34)
7. Awad, Y.M., Blagodatskaya, E., Ok, Y.S.* and Kuzyakov, Y. (2012) Effects of polyacrylamide, biopolymer and biochar on decomposition of soil organic matter and plant residues as determined by ^{14}C and enzyme activities. *European Journal of Soil Biology*, 48:1-10 (IF 2.068) (JCR (Q2), Soil Science: 19/34) (*Corresponding Author)
8. Ahmad, M., Moon, D.H., Lim, K.J., Shope, C.L., Lee, S.S., Usman, A.R.A., Kim, K.R., Park, J.H., Hur, S.O., Yang, J.E. and Ok, Y.S.* (2012) An assessment of the utilization of waste resources for the immobilization of Pb and Cu in the soil from a Korean military shooting range. *Environmental Earth Sciences*, 67:1023-1031 (IF 1.569) (JCR Top 25% (Q1), Environmental Science: 144/229) (*Corresponding Author)
9. Ahmed, Z., Kim, S.M., Kim, I.S., Bum, M.S., Chae, K.J., Joo, J.H., Ok, Y.S. and Oh, S.E. (2012) Nitrification and denitrification using biofilters packed with sulfur and limestone at a pilot-scale municipal wastewater treatment plant. *Environmental Technology*, 33:1271-1278 (IF 1.751) (JCR (Q3), Environmental Sciences: 122/229)
10. Kim, J., Kim, M., Hyun, S., Kim, J.G. and Ok, Y.S. (2012) Sorption of acidic organic solute onto kaolinitic soils from methanol-water mixtures. *Journal of Environmental Science and Health, Part B*, 47:22-29 (IF 1.31)
11. Almaroai, Y.A., Usman, A.R.A., Ahmad, M., Kim, K.R., Moon, D.H., Lee, S.S. and Ok, Y.S.* (2012) Effects of synthetic chelators and low-molecular-weight organic acids on chromium, copper, and arsenic uptake and translocation in maize (*Zea mays* L.). *Soil Science*, 177:655-663 (IF 0.713) (JCR (Q4), Soil Science: 28/34) (*Corresponding Author)
12. Abd El-Azeem, S.A.M., Elwan, M.W.M., Sung, J.K. and Ok, Y.S.* (2012) Alleviation of salt stress in eggplant (*Solanum melongena* L.) by plant-growth promoting rhizobacteria. *Communications in Soil Science and Plant Analysis*, 43:1303-1315 (IF 0.589) (JCR (Q3), Agronomy: 57/83) (*Corresponding Author)

Year 2011 (Selected)

1. Van Ginkel, S.W., Hassan, S.H.A., Ok, Y.S., Yang, J.E., Kim, Y.S. and Oh, S.E. (2011) Detection of oxidized contaminants in water using sulfur-oxidizing bacteria. *Environmental Science & Technology*, 45:3739-3745 (IF 6.198) (JCR Top 10% (Q1), Engineering, Environmental: 4/49)

2. Ok, Y.S.*, Usman, A.R.A., Lee, S.S., Abd El-Azeem, S.A.M., Choi, B., Hashimoto, Y. and Yang, J.E. (2011) Effects of rapeseed residue on lead and cadmium availability and uptake by rice plants in heavy metal contaminated paddy soil. *Chemosphere*, 85:677-682 (IF 4.427) (JCR Top 15% (Q1), Environmental Sciences: 34/241) (*Corresponding Author)
3. Jung, K., OK, Y.S.* and Chang, S.X. (2011) Sulfate adsorption properties of acid-sensitive soils in Athabasca oil sands region in Alberta, Canada. *Chemosphere*, 84:457-463 (IF 4.427) (JCR Top 15% (Q1), Environmental Sciences: 34/241) (*Corresponding Author) (*Co-first author)
4. Kwon, S.I., Owens, G., Ok, Y.S., Lee, D.B., Jeon, W.T., Kim, J.G. and Kim, K.R. (2011) Applicability of the Charm II system for monitoring antibiotic residues in manure-based composts. *Waste Management*, 31:39-44 (IF 4.030) (JCR Top 15% (Q1), Environmental Sciences: 37/229)
5. Ok, Y.S., Lim, J.E. and Moon, D.H. (2011) Stabilization of Pb and Cd contaminated soils and soil quality improvements using waste oyster shells. *Environmental Geochemistry and Health*, 33:83-91 (IF 2.994) (JCR Top 15% (Q1), Water Resources: 14/90)
6. Ok, Y.S., Lee, S.S., Jeon, W.T., Oh, S.E., Usman, A.R.A. and Moon, D.H. (2011) Application of eggshell waste for the immobilization of cadmium and lead in a contaminated soil. *Environmental Geochemistry and Health*, 33:31-39 (IF 2.994) (JCR Top 15% (Q1), Water Resources: 14/90)
7. Ok, Y.S., Kim, S.C., Kim, D.K., Skousen, J.G., Lee, J.S., Cheong, Y.W., Kim, S.J. and Yang, J.E. (2011) Ameliorants to immobilize Cd in rice paddy soils contaminated by abandoned metal mines in Korea. *Environmental Geochemistry and Health*, 33:23-30 (IF 2.994) (JCR Top 15% (Q1), Water Resources: 14/90)
8. Ok, Y.S.*, Kim, S.C., Kim, K.R., Lee, S.S., Moon, D.H., Lim, K.J., Sung, J.K., Hur, S.O. and Yang, J.E. (2011) Monitoring of selected veterinary antibiotics in environmental compartments near a composting facility in Gangwon Province, Korea. *Environmental Monitoring and Assessment*, 174:693-701 (IF 1.687) (JCR (Q3), Environmental Sciences: 126/229) (*Corresponding Author)
9. Moon, D.H., Kim, K.W., Yoon, I.H., Grubb, D.G., Shin, D.Y., Cheong, K.H., Choi, H.II., Ok, Y.S. and Park, J.H. (2011) Stabilization of arsenic-contaminated mine tailings using natural and calcined oyster shells. *Environmental Earth Sciences*, 64:597-605 (IF 1.569) (JCR (Q3), Environmental Science: 144/229)
10. Yang, J.E., Skogley, E.O., Ok, Y.S. (2011) Carbonaceous resin capsule for vapor-phase monitoring of volatile monoaromatic hydrocarbons in soil. *Soil and Sediment Contamination*, 20(2):205-220 (IF 1.207) (JCR Q3, Environmental Science: 167/229)

Year 2010 (Selected)

1. Ok, Y.S.*, Oh, S.E., Ahmad, M., Hyun, S., Kim, K.R., Moon, D.H., Lee, S.S., Lim, K.J., Jeon, W.T. and Yang, J.E. (2010) Effects of natural and calcined oyster shells on Cd and Pb immobilization in contaminated soils. *Environmental Earth Sciences*, 61:1301-1308 (IF 1.569) (JCR Top 25% (Q1), Environmental Science: 144/229) (*Corresponding Author)
2. Kim, S.C., Yang, J.E., Ok, Y.S., Skousen, J., Kim, D.G. and Joo, J.H. (2010) Accelerated metolachlor degradation in soil by zerovalent iron and compost amendments. *Bulletin of*

Environmental Contamination and Toxicology, 84:459-464 (IF 1.412) (JCR (Q3), Environmental Sciences: 158/229)

3. Kim, S.C., Yang, J.E., Ok, Y.S. and Carlson, K. (2010) Dissolved and colloidal fraction transport of antibiotics in soil under biotic and abiotic conditions. *Water Quality Research Journal of Canada*, 45(3):275-285 (IF 0.444) (JCR (Q4), Water Resources: 81/88)

Year 2009 (Selected)

1. Yang, J.E., Ok, Y.S., Lee, W.Y. and Skousen, J. (2009) Soil nutrient bioavailability and nutrient content of pine trees (*Pinus thunbergii*) in areas impacted by acid deposition in Korea. *Environmental Monitoring and Assessment*, 157:43-50 (IF 1.687) (JCR (Q3), Environmental Sciences: 126/229)

Year 2007 (Selected)

2. Ok, Y.S., Yang, J.E., Zhang, Y.S., Kim, S.J. and Chung, D.Y. (2007) Heavy metal adsorption by a formulated zeolite-Portland cement mixture. *Journal of Hazardous Materials*, 147:91-96 (IF 6.065) (JCR Top 5% (Q1), Engineering, Civil: 1/125)
3. Ok, Y.S., Chang, S.X. and Feng, Y.S. (2007) Sensitivity to acidification of forest soils in two watersheds with contrasting hydrological regimes in the oil sands region of Alberta. *Pedosphere*, 17(6):747-757 (IF 1.734) (JCR (Q3), Soil Science: 20/34)
4. Yang, J.E., Kim, J.S., Ok, Y.S. and Yoo, K.R. (2007) Mechanistic evidence and efficiency of the Cr(VI) reduction in water by different sources of zerovalent irons. *Water Science and Technology*, 55:197-202 (IF 1.197) (JCR (Q3), Water Resources: 61/88)
5. Yang, J.E., Kim, H.J., Ok, Y.S., Lee, J.Y. and Park, J. (2007) Treatment of abandoned coal mine discharged waters using lime wastes. *Geosciences Journal*, 11(2):111-114 (IF 1.095) (JCR (Q3), Geosciences, Multidisciplinary: 139/188)

Year 2006 (Selected)

1. Yang, J.E., Kim, J.S., Ok, Y.S., Kim, S.J. and Yoo, K.Y. (2006) Capacity of Cr(VI) reduction in an aqueous solution using different sources of zerovalent irons. *Korean Journal of Chemical Engineering*, 23(6):935-939 (IF 2.007) (JCR (Q2), Chemistry, Multidisciplinary: 80/166)
2. Yang, J.E., Skousen, J.G., Ok, Y.S., Yoo, K.Y. and Kim, H.J. (2006) Reclamation of abandoned coal mine waste in Korea using lime cake by-products. *Mine Water and the Environment*, 25(4):227-232 (IF 1.278) (JCR (Q3), Water Resources: 57/88)

Year 2005 (Selected)

1. Lee, S.E., Campbell, B.C., Ok, Y.S., Kim, J.H., Park, B.S. and Liu, N. (2005) Biochemical changes in dehydrogenase, hydroxylase and tyrosinase of a permethrin-

resistant strain of housefly larvae, *Musca domestica* L. *Environmental Toxicology and Pharmacology*, 20:258-263 (IF 2.313) (JCR (Q2), Environmental Sciences: 91/229)

Year 2004 (Selected)

1. Chung, H.H., Choi, S.W., Ok, Y.S. and Jung, J. (2004) EPR characterization of the catalytic activity of clays for PCE removal by gamma-radiation induced by acid and thermal treatments. *Chemosphere*, 57:1383-1387 (IF 4.427) (JCR Top 15% (Q1), Environmental Sciences: 34/241)
2. Jung, J., Joo, H.J., Lee, S.M., Ok, Y.S. and Kim, J.G. (2004) Enhancement of biodegradability of EDTA by gamma-ray treatment. *Journal of Radioanalytical and Nuclear Chemistry*, 262(2):371-374 (IF 1.282) (JCR (Q2), Nuclear Science & Technology: 11/33)
3. Yoon, Y., Ok, Y.S., Kim, D.Y. and Kim, J.G. (2004) Agricultural recycling of the by-product concentrate of livestock wastewater treatment plant processed with VSEP RO and bio-ceramic SBR. *Water Science and Technology*, 49:405-412 (IF 1.197) (JCR (Q3), Water Resources: 61/88)

Book and book chapters

Year 2017

1. Xiong, X., Tsang, D.C.W. and Ok, Y.S. (2017) Chemical characterization of mine sites. In: Bolan, N.S., Kirkham, M.B., Ok, Y.S. (Ed.), Spoil to soil: Mine Site Rehabilitation and Revegetation, CRC Press Press, Taylor & Francis Group. ISBN: 9781498767613
2. Wijesekara, H., Bolan, N.S., Colyvas, K., Seshadri, B., Ok, Y.S., Awad, Y.M., Xu, Y., Thangavel, R., Surapaneni, A., Saint, C. and Vithanage, M. (2017) Use of biowaste for mine site rehabilitation: A meta-analysis on soil carbon dynamics. In: Bolan, N.S., Kirkham, M.B., Ok, Y.S. (Ed.), Spoil to soil: Mine Site Rehabilitation and Revegetation, CRC Press Press, Taylor & Francis Group. ISBN: 9781498767613

Year 2016

1. Wijesekara, H., Bolan, N.S., Vithanage, M., Xu, Y., Mandal, S., Brown, S.L., Hettiarachchi, G.M., Pierzynski, G.M., Huang, L., Ok, Y.S., Kirkham, M. B., Saint, C. and Surapaneni, A. (2016) Utilization of biowaste for mine spoil rehabilitation. In: Sparks, D.L. (Ed.), Advances in Agronomy, pp. 97-177, Academic Press, Elsevier. ISBN: 9780128046913
2. Karunanithi, R., Szogi, A.A., Bolan, N., Naidu, R., Ok, Y., Krishnamurthy, S., Seshadri, B. 2016. Phosphorus recovery from wastes. In: Prasad, M.N.V., Shih, K. (Ed.), Environmental Materials and Waste: Resource Recovery and Pollution Prevention, pp. 687-705, Academic Press, Elsevier. ISBN: 9780128038376
3. Vithanage, M., Rajapaksha, A.U., Ahmad, M., Shinogi, Y., Kim, K.H., Kim, G. and Ok, Y.S. (2016) Biochar for waste management and environmental sustainability. In: Wong,

J.W.C., Surampalli, R.Y., Zhang, T.C., Tyagi, R.D., Selvam, A. (Ed.), Sustainable Solid Waste Management. American Society of Civil Engineers. ISBN: 9780784414101

4. Shaheen, S.M., Tsadilas, C.D., Ok, Y.S. and Rinklebe, J. (2016) Potential mobility, bioavailability, and plant uptake of toxic elements in temporary flooded soils. In: Rinklebe, J., Knox, A., Paller, M. (Ed.), Trace Elements in Waterlogged Soils and Sediments, pp. 287-312, CRC Press, Taylor and Francis Group. ISBN: 9781482240511

Year 2015

1. Igalavithana, A.D., Shaheen, S.M., Park, J.N., Lee, S.S and Ok, Y.S.* (2015) Potentially toxic element contamination and its impact on soil biological quality in urban agriculture: A critical review. In: Sherameti, I., Varma, A. (Ed.), Heavy Metal Contamination of Soils, pp. 81-101, Springer. ISBN: 9783319145259 (*Corresponding Author)
2. Rajapaksha, A.U., Mohan, D., Igalavithana, A.D., Lee, S.S. and Ok, Y.S.* (2015) Definitions and fundamentals of biochar. In: Ok, Y.S., Uchimiya, S.M., Chang, S.X., Bolan, N., Biochar: Production, Characterization, and Applications. CRC Press, Taylor and Francis Group. ISBN: 9781482242294 (*Corresponding Author)
3. Kunhikrishnan, A., Bibi, I., Bolan, N., Seshadri, B., Choppala, G., Niazi, N.K., Kim, W. and Ok, Y.S. (2015) Biochar for Inorganic Contaminant Management in Waste and Wastewater. In: Ok, Y.S., Uchimiya, S.M., Chang, S.X., Bolan, N., Biochar: Production, Characterization, and Applications. CRC Press, Taylor and Francis Group. ISBN: 9781482242294
4. Igalavithana, A.D., Ok, Y.S.*, Usman, A.R.A., Al-Wabel., M.I., Oleszczuk, P. and Lee, S.S. (2015) The effect of biochar amendment on soil fertility. In: Guo, M., He, Z., Uchimiya, S.M. (Ed.), Agricultural and Environmental Applications of Biochar: Advances and Barriers. SSSA Special Publication 63, pp. 101-122, Soil Science Society of America, Inc. ISBN: 9780891189640 (*Co-first Author)

Year 2014

1. Vithanage, M., Wijesekara, S.S.R.M.D.H.R., Siriwardana, A.R., Mayakaduwa, S.S. and Ok, Y.S.* (2014) Management of municipal solid waste landfill leachate: A global environmental issue. In: Malik, A., Grohmann, E., Akhtar, R. (Ed.), Environmental Deterioration and Human Health, pp. 263-288. Springer. ISBN 9789400778900 (*Corresponding Author)

Year 2012

2. Ahmad, M., Lee, S.S., Moon, D.H., Yang, J.E. and Ok, Y.S.* (2012) A review of environmental contamination and remediation strategies for heavy metals at shooting range soils. In: Malik, A., Grohmann, E. (Ed.), Environmental Protection Strategies for Sustainable Development, pp. 437-451, Springer. ISBN: 9789400715905 (*Corresponding Author)

Year 2009

3. Ok, Y.S., Chang, S.X. and Feng, Y. (2009) The role of atmospheric N deposition in soil acidification in forest ecosystems. In: Muñoz, S.I. (Ed.), Ecology Research Progress, pp. 47-77. Nova Science Publishers, Inc. ISBN: 9781606925607

Year 2008

4. Yang, J.E., Ok, Y.S., Kim, W.I. and Lee, J.S. (2008) Heavy metal pollution, risk assessment and remediation in paddy soil environment: Research experiences and perspectives in Korea. In: Sánchez, M.L. (Ed.), Causes and Effects of Heavy Metal Pollution, pp. 341-369. Nova Science Publishers. ISBN: 9781608762552

Teaching Experience

Undergraduate

Environmental Remediation, Soil Conservation, Environmental and Ecological Engineering, Environmental Contamination and Remediation, Environmental Ecology, Risk Assessment, Environment and Bioenergy Experiment, Plant and Environmental Sciences, Environmental Stress and Plant Responses, Agriculture and Information, Instrumental Analysis, Intellectual Property Right in Agroindustry, Introduction to Biological Environment, Capstone Design, Career Development Skills, Internship, Advice on Goal Setting and Career Planning, etc.

Graduate

Environmental Remediation, Ecological Engineering, Bioremediation, Soil Pollution, Cycles of Chemicals in Soil, Biogeochemistry, Phytoremediation, Environmental Pollution Assessment Methodology, Environmental Pollution and Plant Response, Risk Assessment, Current Topics in Environmental Remediation, Thesis Advising, Seminar, etc.

Supervision of Personnel

Current Postdoctoral Fellows, Visiting Scientists and Graduate Students: >10 persons
Postdoctoral Fellows and Visiting Scientists Supervised: >10 persons
Graduate Students Supervised: >15 persons
Graduate Supervisory Committee Served: >30 persons

Pending Patents

1. Ok, Y.S., Vithanage, M., Rajapaksha, A., Lee, S.S., Park, J.N. and Chung, Y.S. (2016) Method of inhibiting transport of antibiotics in soil using biochars. 2016-0001832, Korea
2. Ok, Y.S., Rajapaksha, A., Lim, J.E., Zhang, M., Lee, S.S., Park, J.N. and Chung, Y.S. (2015) Method of inhibiting absorption of antibiotics in plants using biochars. 2015-0139152, Korea
3. Ok, Y.S., Vithanage, M., Rajapaksha, A., Lee, S.S. and Park, J.N. (2015) Method for biochar activating using by steam treatment, steam activated biochar for being settled steam treatment and manufacturing method thereof. 2015-0139145, Korea
4. Ok, Y.S., Rajapaksha, A., Vithanage, M., Lee, S.S. and Park, J.N. (2015) Activation method of biochar using acid treatment, acid activated biochar and preparing method thereof. 2015-0133919, Korea
5. Kim, S.W. and Ok, Y.S. (2014) Installation case for laying a mine and installation method using it in winter. 2014-0137861, Korea
6. Ok, Y.S., Park, J.N., Lim, J.E. and Ahn, J.H. (2014) Manufacturing method of biochar using sewage sludge and its effect on Pb immobilization in soil. 2014-0115019, Korea
7. Ok, Y.S., Ahmed, M., Lee, S.S., Lim, J.E. and Na, S.H. (2014) Method for purifying trichloroethylene in water using biochar derived from Buffalo Weed(*Ambrosia Trifida L.*). 2014-0110505, Korea
8. Ok, Y.S., Rajapaksha, A., Vithanage, M. and Lim, J.E. (2014) Method for removal of antibiotics in water using steam activated biochar derived from burcucumber (*Sicyos angulatus L.*). 2014-0106125, Korea
9. Ok, Y.S., Jeong, S.H., Kim, H.W. and Jeong, Y.S. (2014) Method for purifying veterinary antibiotics in water using biochar derived from burcucumber (*Sicyos angulatus L.*). 2014-0067642, Korea
10. Ok, Y.S. and Jeong, S.H. (2014) Method for purifying antibiotics in water using biochar derived from buffalo-weed (*Ambrosia trifida L.*). 2014-0016670, Korea
11. Ok, Y.S., Jeong, S.H. and Lee, S.S. (2014) Method for reduction for carbon dioxide from soils using biochar derived from corn residue. 2014-0000540, Korea
12. Ok, Y.S. (2013) The method of TCE adsorption using soybean stover or peanut shells carbonized at high temperature. 2013-0045653, Korea
13. Ok, Y.S., Lim, J.E., Seong, J.G., Lee H.Y. and Jeong, Y.S. (2010) Method for stabilization of heavy metals in soils using heat-treated livestock wastes and soil conditioner. 2010-0137227, Korea
14. Ok, Y.S., Lim, J.E., Lee, H.Y. and Kwon, O.G. (2010) Method for stabilization of heavy metals in soils using heat-treated livestock and fisheries wastes. 2010-0131266, Korea
15. Ok, Y.S., Cho, B.S., Heo, S.O. and Ha, S.G. (2010) Waste nutrient solution treatment and reuse for agriculture application. 2010-0112397, Korea

16. Ok, Y.S., Lee, H.Y., Ju, J.H. and Yang, J.E. (2010) Chestnut shell contained absorbent and absorbing method of heavy metal ions from aqueous solution by using them. 2010-0109610, Korea
17. Oh, S.E., Ju, J.H. and Ok, Y.S. (2010) The method and system for salt removal from vinyl house soil. 2010-0102430, Korea
18. Ok, Y.S., Yang, J.E. and Ju, J.H. (2010) Gold recovering method in solution by chestnut shell. 2010-0086816, Korea
19. Yang, J.E. and Ok, Y.S. (2010) Method for treating soils contaminated by heavy metals using equisetum arvense L. 2010-0034902, Korea
20. Ok, Y.S., Lim, J.E. and Yang, J.E. (2010) Method for treating soils contaminated by heavy metals using oystershell and soil treatment agent. 2010-0029410, Korea
21. Ok, Y.S., Lim, J.E. and Yang, J.E. (2010) Method for stabilization of heavy metals in soils using eggshell powder. 2010-0027395, Korea
22. Yang, J.E. and Ok, Y.S. (2008) Composition comprising zerovalent iron for remediation of rice paddy soils contaminated with heavy metals and a method using the same. 2008-0112753, Korea
23. Kim, J.K., Joo, N.H, Kim, N.B., Joo, H.I., Yun, Y.M., Ok, Y.S., Kim, D.Y. and Kim S.H. (2003) Method of biological remediation for heavy metal contaminated soil. 2003-0079062, Korea
24. Kim, J.K., Joo, N.H., Kim, N.B., Joo, H.I., Yun, Y.M., Ok, Y.S., Kim, D.Y. and Kim, S.H. (2003) New plant variety of *Artemisia Princeps* var. *orientalis* 'Korea'. 2003-0079061, Korea
25. Kim, J.K., Joo, N.H., Kim, N.B., Joo, H.I., Yun, Y.M., Ok, Y.S., Kim, D.Y. and Kim, S.H. (2003) Removing method for heavy metals of a coal mine soil using plants. 2003-0079060, Korea

Registered Patents

1. Ok, Y.S., Zhang, M., Xu, L.H. and Lee, S.S. (2016) The dietary fiber extracted from wheat bran for adsorption of polycyclic aromatic hydrocarbons. 10-1681646. Korea
2. Ok, Y.S., Rajapaksha, A., Vithanage, M., Lee, S.S. and Park, J.N. (2016) Activation method of biochar using acid treatment, acid activated biochar and preparing method thereof. 10-1638822. Korea.
3. Seo, D.C., Park, J.H., Kim, S.H., Heo, J.S., Kang, S.W., Park, J.W., Joo, J.S. and Ok, Y.S. (2015) An apparatus and method of impregnating sulfur impregnated on biochar for wastewater processing. 10-1547430. Korea.
4. Ok, Y.S., Rajapaksha, A., Vithanage, M. and Lim, J.E. (2015) Method for removal of antibiotics in water using steam activated biochar derived from burcucumber (*Sicyos angulatus* L.). 10-1536937. Korea.
5. Seo, D.C., Park, J.H., Kim, S.H., Kang, S.W., Park, J.W., Joo, J.S., Heo, J.S. and Ok, Y.S. (2015) An apparatus and method of manufacturing sulfur impregnated biochar for wastewater processing. 10-1485293. Korea.

6. Kim, S.W. and Ok, Y.S. (2014) Installation case for laying a mine and installation method using it in winter. 10-1480222. Korea.
7. Ok, Y.S., and Jeong, S.H. (2014) Method for purifying veterinary antibiotics in water using biochar derived from burcucumber (*Sicyos angulatus* L.). 10-1428553. Korea.
8. Ok, Y.S., Jeong, S.H. and Lee, S.S. (2014) Method for reduction for carbon dioxide from soils using biochar derived from corn residue. 10-1428552. Korea.
9. Ok, Y.S. and Jeong, S.H. (2014) Method for purifying antibiotics in water using biochar derived from buffalo-weed (*Ambrosia trifida* L.). 10-1390454. Korea.
10. Ok, Y.S. (2014) The method of TCE adsorption using soybean stover or peanut shells carbonized at high temperature. 10-1376278. Korea.
11. Oh, S.E., Joo, J.H. and Ok, Y.S. (2011) The method and system for salt removal from vinyl house soil. 10-1064368. Korea.
12. Ok, Y.S., Lee, H.Y., Joo, J.H. and Yang, J.E. (2011) Chestnut shell contained absorbent and absorbing method of heavy metal ions from aqueous solution by using them. 10-1055661. Korea.
13. Ok, Y.S., Choi, B.S., Hur, S.O. and Ha, S.K. (2011) Waste nutrient solution Treatment and reuse for agriculture application. 10-1049202. Korea.
14. Ok, Y.S., Yang, J.E. and Joo, J.H. (2011) Gold recovering method in solution by chestnut shell. 10-1072445. Korea.
15. Kim, J.G., Cho, N.H., Kim, N.B., Cho, H.I, Yoon, Y.M., Ok, Y.S., Kim, D.Y. and Kim, S.H. (2005) New plant variety of *Artemisia princeps* var. *orientalis* 'Korea'. 10-0472095. Korea.
16. Kim, J.G., Cho, N.H., Kim, N.B., Cho, H.I, Yoon, Y.M., Ok, Y.S., Kim, D.Y. and Kim, S.H. (2004) Removing method for heavy metals of a coal mine soil using plants. 10-0465451. Korea.
17. Kim, J.G., Cho, N.H., Kim, N.B., Cho, H.I, Yoon, Y.M., Ok, Y.S., Kim, D.Y. and Kim, S.H. (2004) Method of biological remediation for heavy metal contaminated soil. 10-0465452. Korea.