

May 1, 2019

Dear Dr. Dillon,

I write to self-nominate for the honorary position of Co-chair of IAH Commission on Managing Aquifer Recharge (MAR) as described in <a href="https://recharge.iah.org/iah-mar-co-chair-elections-2019">https://recharge.iah.org/iah-mar-co-chair-elections-2019</a>. This nomination is seconded by retiring Co-chair, Professor Weiping Wang, University of Jinan. The most important motivation for me is to facilitate an increase in the percentage of MAR of current global groundwater use from its current 2.4% to 5% by 2030 through working for the IAH-MAR Commission. A CV is enclosed for your reference.

Of the example co-chair tasks, I am especially interested in the following based on my past experience and qualifications:

- Helping interested people to develop and refine activities to advance MAR by forming working groups to complete these tasks and promote outputs
   I have facilitated the formation of the IAH-MAR Commission's MAR for Sustainability working group and is its current leader. It has been an interesting growth experience so I can relate to those who may want to do the same.
- 2) Ensuring that there will be refereed publications emerging from ISMARs and help select editors and journals as required
  I have considerable editorial experience for peer reviewed journal publications. I am currently an Associate Editor for Water Resources Research, and have served as an Associate Editor for Journal of Geochemical Exploration. I have also guest guest-edited special issues for Environmental Health Perspective, Journal of Geochemical Exploration, and Science of the Total Environment.
- 3) Seeking to maximise international benefits of the Commission, taking particular account of developing countries and aiming to publish as much as possible in open access refereed publications, or via the IAH-MAR web site. (Leave no one behind.)
  I see this as being critical to the mission of IAH-MAR Commission, especially to share results based on practice that may not suit a journal publication, although the publication process can still benefit from quality control through peer review.
- 4) Convening plenary sessions of IAH-MAR at ISMARs and IAH Congresses at as many other relevant conferences as possible to widen connections and advance activities. I have chaired sessions in many international professional conferences and would make an effort to continue to do so during ISMARs, IAH Congresses, AGU and GSA meetings.
- 5) Liaising with IAH, UNESCO, GRAC, AHS, IWA and other organisations as needed to maximise the achievement of objectives of the commission (see our welcome page for current objectives) and broaden exposure to Commission activities I will make this a new habit and will start by help completing the UNESCO-IHP publication on exemplar cases of economic and sustainable MAR.
- 6) Assist the ISMAR organising committees by liaising with UNESCO to seek funding to help with travel costs for early career scientists from developing countries, and to establish



selection criteria, solicit proposals, review them and make recommendations to UNESCO for awards. To also arrange where an ISMAR has made a profit for some of this to be banked with IAH to expand support of such delegates to future congresses.

As an educator, I truly believe the future of hydrogeology is to develop human capacity in developing countries. I have trained many graduate students and young professionals from Bangladesh while a faculty member in the US and while working for UNICEF Bangladesh and am continuing to engage Cambodian students in my on-going research. This will be a priority.

- 7) Preparing annual reports on IAH-MAR activities for IAH Executive and for posting on IAH-MAR web site for public information early each calendar year, and preparing a request to the IAH Executive as advised, in order to extend the life of the Commission before its charter expires (currently each 6 years).
  - The work of the IAH-Commission is clearly not yet completed as the global MAR percentage is still low relative to global groundwater use. So I am committed to this task to work collaboratively with other Co-chairs.
- 8) Think about new ways the Commission can increase its benefits and implement discussions and actions that will see these bear fruit.
   I believe the Commission can do more by reaching out to surface water hydrology community by placing MAR as part of recognized tool-kits in conjunctive surface water and

groundwater management.

Thank you for your consideration. I look forward to serving the Commission!

Sincerely,

Yan Zheng PhD

Chair Professor. School of Environmental Science and Engineering, &

Associate Director, Office of Research

**SUSTech** 

Email: yan.zheng@sustech.edu.cn Fellow of Geological Society of America Associate Editor, Water Resources Research

#### **Current Position**

CHAIR PROFESSOR, School of Environmental Science and Engineering

EXECUTIVE DIRECTOR, Belt and Road Environment Institute of China (BREIC)

ASSOCIATE DIRECTOR, Office of Research

Southern University of Science and Technology, Shenzhen, China

Email: yan.zheng@sustech.edu.cn

**Nationality** USA

Languages English, Chinese

#### Education

Columbia University Earth and Environ. Sci./marine geochemistry, Ph.D. 1999

Columbia University, Geol. Sci./chemical oceanography, M.Phil., 1994

Columbia University, Geol. Sci./isotope geochemistry, M.A., 1993

University of Science and Technology of China, Geochemistry, B.S, 1988

# **Employment History**

09/13-present *Affiliated Professor*, School of Public Health, City University of New York

01/12-08/16 Executive Facilities Professor, Queens College, CUNY Specialist, UNICEF Bangladesh, Water and Environmental Sanitation 12/09-12/11 08/08-presentAdjunct Senior Res. Scientist, Lamont-Doherty, Columbia University 01/07-11/09 Director & Professor, School of Earth and Env. Sci., Queens College 09/06-11/09 Professor, Queens College, City University of New York 09/06-07/08 Adjunct Res. Scientist, Lamont-Doherty, Columbia University 09/05-04/06 Consultant, UNICEF China, Water and Sanitation 09/02-08/06 Associate Professor, Queens College, City University of New York 02/99-08/06 Adjunct Assoc. Res. Scientist, Lamont-Doherty, Columbia University 09/98-08/02 Assistant Professor, Queens College, City University of New York 08/88 - 08/91 Research Assistant, Research Center for Eco-Environmental

Sciences.

Chinese Academy of Sciences, Beijing,

#### China

# **Countries and Organizations with Work Experience**

Bangladesh United Nations Children's Fund (UNICEF)

China Chinese Academy of Sciences, Peking University & SUSTech

USA City University of New York & Columbia University

#### **Personal Statement**

Dr. Yan Zheng is interested in studying chemistry of chemical compounds and elements in the environment with a goal to improve human and ecosystem health. An experienced scientist and mentor, she is recognized for her seminal work on biogeochemistry of metalloids in marine and fresh waters and for fostering interdisciplinary approaches to environmental research. With colleagues and students, she has published more than 100 peer-reviewed journal articles in areas including marine geochemistry, hydrogeology, environmental analytical chemistry, drinking water safety,

environmental health, and sustainable development with >7000 Google citations (h-index 43). She has served or is serving as an Associate or a Guest Editor for Environmental Health Perspective, Journal of Geochemical Exploration, Science of the Total Environment, Science Bulletin and Water Resources Research. She was the President for the International Professionals for Advancement of Chinese Earth Sciences (IPACES), and is the Chair of Managed Aquifer for Sustainable Development Working Group of the International Hydrogeologist Association (IAH). She was elected a Fellow of the Geological Society of America in 2010. At UNICEF, as the water and environmental sanitation technology team leader, her team with more than 20 staff members delivered water and sanitation aid projects serving 20 million people in19 districts of Bangladesh, and authored 4 United Nations reports.

# **Professional Experience as Project Director of Research Programs**

2019-2023 Groundwater Arsenic Study in China, Cambodia and Vietnam, NSFC & CAS 2018-2021 Managed Aquifer Recharge in North China Plain, DANIDA (PI of Chinese partners)

2018-2022 Groundwater Remediation Study, NSFC & SZSTIC

2013-2015 Groundwater Sustainability Study, CGS

2012-2014 Stream Water Chemistry Study, NSFC

2012-2014 Transportation Choices Study, US Department of Transportation

2012-2017 Private Well Testing and Treatment Community Engagement, US NIEHS

2006-2012 Maine Ground Water Studies. US NIEHS

2000-2014 Bangladesh Ground Water Studies, US NIEHS and US NSF

# **Relevant Professional Experience**

- Extensive (20+ years) senior level experience in water quality research and management, with over a decade of experience in arsenic mitigation in Bangladesh.
- Extensive experience (15+ years) in dissemination of knowledge through editing and guest-editing journals and special issues, publishing peer-reviewed scientific journal articles, publishing UNICEF and UN reports, and being interviewed by major international and national media.
- Direct experience (2+ years) in management of large WASH interventions in Bangladesh as part of the SHEWA-B project, including supervision of many action research projects to evaluate the efficacy of various interventions for improving water quality and for climate resilient water supply.
- Experience (10+ years) in arsenic mitigation in China through facilitating the formation of the China Arsenic Mitigation Network, and subsequently, advising the China Geological Survey's arsenic mitigation project.
- Experience (10+ years) in arsenic mitigation in Maine and New Jersey through working with Maine Geological Survey and New Jersey Water and Geological Survey, and advising Maine CDC and New Jersey Department of Health.

#### **Professional Services**

- 2018-2019 Scientific Committee, the 10th International Symposium on Managed Aquifer Recharge (ISMAR10), May 2019, Madrid, Spain
- 2018-2021 Stockholm Water Prize Nomination Committee
- 2017.10 Chair, Sino-German Consortium for Managed Aquifer Recharge
- 2017.09 ISMAR9 Session co-Chair
- 2017.06 Chair, Sino-German Workshop on Managed Aquifer Recharge in the North China Plain, June 23, 2017, Shijiazhuang, China
- 2017 International Symposium on Antimicrobial Resistance in the Environment (ISARE 2017) Member of Scientific Committee
- 2017 President, International Professionals for the Advancement of Chinese Earth Sciences (IPACES)
- 2017-present Associate Editor, Water Resources Research
- 2017-2018 Organizing Committee, As2018 the 7<sup>th</sup> International Congress on Arsenic in the Environment, July 1-6, 2018, Beijing, China
- 2015 **Guest Editor** with J. Ayotte, Science of the Total Environment Special Issue "Arsenic in Private Wells of Northeast America" Feb, 1, 2015
- 2014-present **Associate Editor**, Science Bulletin 科学通报(英文)
- 2014 Expert Review Panels for U.S. National Science Foundation Earth Science Division Hydrological Science Program
- 2014 Treasurer, International Professionals for the Advancement of Chinese Earth Sciences (IPACES)
- 2013-present Editorial Board of Acta Geologica Sinica (English Edition)
- 2013 **Guest Editor**, Journal of Geochemical Exploration Special Issue "Arsenic and Fluoride in Groundwater of China" volume 135, page 1-140
- 2013-present, Chair, International Association of Hydrology Managed Aquifer Recharge Commission Working Group Managed Aquifer Recharge for Development
- 2013-2017, Associate Editor, Journal of Geochemical Exploration
- 2013 Chair, Scientific Committee, the 8th International Symposium on Managed Aquifer Recharge (ISMAR8), Oct. 15-19, Beijing, China
- 2013 Convener with P. Smedley, Session 23b, Sustainable Groundwater Development and the Millennium Development Goals: What Can Hydrogeochemists do? Goldschmidt 2013, Aug 25-30, Florence, Italy
- 2013 Convener with J. Ayotte, Session T7 Naturally Occurring Contaminants in Groundwater Used for Water Supply in the Northeastern United States, The Geological Society of America northeastern section meeting, 18-20 March, Bretton Woods, NH, USA
- 2010-2011 Advisory Committee, SIDA funded Arsenic Mitigation Project (SASMIT) in Bangladesh
- June 2009 Convener with H. Michael, Session 13G Sustainable Management of Safe Aquifers in Areas Affected by High Groundwater Arsenic, Goldschmidt 2010, June 13-18, Knoxville, Tennessee

- Apr 2009 Expert Review Panel for U.S. National Science Foundation Earth Science Division Hydrological Science Program
- 2009 Long Island Sound Science and Technology Advisory Committee
- Oct. 2008 Expert Review Panel for NIEHS/Superfund Basic Research Program
- 2008-2010 Board Member, New York City Soil and Water Conservation District
- 2007-2008 Member of editorial board of book series "Arsenic in the Environment volume I: Natural Arsenic in Latin America". ISBN 978-0-415-40771-7. 2008. Routledge, Taylor & Francis Group, USA
- 2007 **Guest Editor**, Environmental Health Perspective mini-monograph "Occurrence and Health Effect of Arsenic in China".
- 2006-2009 Technical advisor, China Arsenic Mitigation Network
- Mar. 2006 Convener, China Arsenic Mitigation Network Conference, Beijing, China. March 24-27, 2006, Beijing Xiyuan Hotel, sponsored by UNICEF, China CDC and Chinese Geological Survey.
- Aug. 2005 Convener with R.F Anderson and M. Dai, A regional workshop of GEOTRACES, Xiamen, China, Aug. 25-27, sponsored by China National Natural Science Foundation and US National Science Foundation
- 2005-2006 **Associate Editor**, Chinese Journal of Endemiology, published by Chinese Medical Association
- Oct. 2004 Expert Review Panel for NIEHS/Superfund Basic Research Program 2002-2003 Advisory Committee, Geological Science Section, New York Academy of Sciences

# **United Nations Reports (N=4)**

- 1. Towards an Arsenic Safe Environment in Bangladesh, March 22, 2010, The Government of Bangladesh and the United Nations. Role: editor and coordinator
- 2. Bangladesh National Drinking Water Quality Survey 2009, March 22, 2011, Bangladesh Bureau of Statistics and UNICEF. Role: co-author and coordinator
- 3. Making Economic Sense for Arsenic Mitigation: A Case Study of Comilla District, Bangladesh, March 22, 2011, UNICEF. Role: supervising author and coordinator
- 4. Proceedings of the National Water and Sanitation Technology Workshop, November 27, 2011, Department of Public Health Engineering, UKAid and UNICEF. Role: editor and coordinator

# Peer Reviewed Publications (N=111):

Citations available at Google Scholar: Total 7094, h-index 43, i10-index 79 <a href="http://scholar.google.com/citations?user=Vi\_DoUgAAAAJ&hl=en">http://scholar.google.com/citations?user=Vi\_DoUgAAAAJ&hl=en</a>

\*Corresponding Author \*\*Corresponding author mentored by Zheng

Publications (2019) n=3

2019.01 P. Dillon\*, P. Stuyfzand, T.Grischek, M. Lluria, R. D. G. Pyne, R. C. Jain, J. Bear, J. Schwarz, W. Wang, E. Fernandez, C. Stefan, M. Pettenati, J. van der Gun, C. Sprenger, G.

Massmann, B. R. Scanlon, J. Xanke, P. Jokela, Y. Zheng, R. Rossetto, M. Shamrukh, P. Pavelic, E. Murray, A. Ross, J. P. Bonilla Valverde, A. Palma Nava, N. Ansems, K.

Posavec, K. Ha, R. Martin, M. Sapiano. 2019. Sixty years of global progress in managed aquifer recharge. Hydrogeology Journal 27:1-30

2019.02 Yingying Yao, Charles Andrews, Yan Zheng, Xin He, Vladan Babovic, and Chunmiao Zheng\*. 2019. Development of fresh groundwater lens in coastal reclaimed islands. Journal of Hydrology 573:365-375

2019.03 Jie Liu, Xi Li, Hong Yang, Guoyi Han, Junguo Liu, Chunmiao Zheng, Yan Zheng\*. 2019. The Water-Energy Nexus of Megacities Extends Beyond Geographic Boundaries: A Case of Beijing. Environmental Engineering Sciences *in press* 

# Publications (2018) n=4

2018.01 Flanagan, S.V.\*\* and Y. Zheng. 2018. Comparative case study of legislative attempts to require private well testing in New Jersey and Maine. <u>Environmental Science & Policy</u> 85: 40-46

2018.02 Kulkarni, H. V., Mladenov, N., McKnight, D. M., Zheng, Y., Kirk, M. F., and Nemergut, D. R., 2018, Dissolved fulvic acids from a high arsenic aquifer shuttle electrons to enhance microbial iron reduction: <u>Science of the Total Environment</u>, v. 615, p. 1390-1395.

2018.03 Flanagan, S.V. Gleason, J.A. Spayd, S.E. Procopio, N.A. Rockafellow-Baldoni, M.

Braman, S. Chillrud, S.N. Zheng, Y\*, Health protective behavior following required arsenic testing under the New Jersey Private Well Testing Act, <u>International Journal of Hygiene and Environmental Health</u>, DOI: 10.1016/j.ijheh.2018.05.008

2018.04 Xu, B.Wang, G. Yang, Q. Zheng, Y\*. Hydrological buffering during groundwater acidification in rapidly industrializing alluvial plains, <u>Journal of Contaminant Hydrology</u>, DOI: 10.1016/j.jconhyd.2018.08.006

# Publications (2017) n=6

2017.01 Zheng, Y.\* and Flanagan, S.V. 2017. The case for universal screening of private well water quality in the U.S. and testing requirement to achieve it: Evidence from arsenic. <u>Environmental Health Perspective</u>, 125(8) DOI:10.1289/EHP629.

https://ehp.niehs.nih.gov/EHP629/

2017.02 Zheng\*, Y., 2017, Lessons Learned from Arsenic Mitigation among Private Well Households, Current Environmental Health Reports, 1-10.

2017.03 George\*\*, C. M., J. Inauen, J. Perin, J. Tighe, K. Hasan, and Y. Zheng, 2017, Behavioral Determinants of Switching to Arsenic-Safe Water Wells: An Analysis of a Randomized Controlled Trial of Health Education Interventions Coupled With Water Arsenic Testing, Health Education & Behavior, 44(1), 92-102.

2017.04 Radloff\*\*, K. A., Y. Zheng, M. Stute, B. Weinman, B. Bostick, I. Mihajlov, M. Bounds, M. M. Rahman, M. R. Huq, and K. M. Ahmed (2017), Reversible adsorption and

flushing of arsenic in a shallow, Holocene aquifer of Bangladesh, <u>Applied Geochemistry</u>, 77, 142-157.

2017.05 Zhang, Y., S. Li, L. Zheng, J. Chen, and Y. Zheng\* (2017), Evaluation of arsenic sorption and mobility in stream sediment and hot spring deposit in three drainages of the Tibetan Plateau, <u>Applied Geochemistry</u>, 77, 89-101.

2017.06 Aziz, Z., B. C. Bostick, Y. Zheng, M. R. Huq, M. M. Rahman, K. M. Ahmed, and A. van Geen (2017), Evidence of decoupling between arsenic and phosphate in shallow groundwater of Bangladesh and potential implications, <u>Applied Geochemistry</u>, 77, 167-177

Publications (2016) n=5

2016.01 Keimowitz, A.R.\*\*, Zheng, Y., Lee, M.-K., Natter, M., Keevan, J., 2016. Sediment Core Sectioning and Extraction of Pore Waters under Anoxic Conditions. <u>JoVE (Journal of Visualized Experiments)</u>, e53393-e53393

2016.02 Flanagan, S.V., Spayd, S.E., Procopio, N.A., Chillrud, S.N., Braman, S., Zheng, Y.\*, 2016. Arsenic in private well water part 1 of 3: Impact of the New Jersey Private Well Testing Act on household testing and mitigation behavior. <u>Science of The Total Environment</u> 562, 999-1009

2016.03 Flanagan, S.V., Spayd, S.E., Procopio, N.A., Chillrud, S.N., Ross, J., Braman, S., Zheng, Y.\*, 2016b. Arsenic in private well water part 2 of 3: Who benefits the most from traditional testing promotion? <u>Science of The Total Environment</u> 562, 1010-1018 2016.04 Flanagan, S.V., Spayd, S.E., Procopio, N.A., Marvinney, R.G., Smith, A.E., Chillrud, S.N., Braman, S., Zheng, Y.\*, 2016c. Arsenic in private well water part 3 of 3: Socioeconomic vulnerability to exposure in Maine and New Jersey. <u>Science of The Total Environment</u> 562, 1019-1030

2016.05 Mihajlov, I.\*\*, Stute, M., Schlosser, P., Mailloux, B.J., Zheng, Y., Choudhury, I., Ahmed, K.M., van Geen, A., 2016. Recharge of low-arsenic aquifers tapped by community wells in Araihazar, Bangladesh, inferred from environmental isotopes. <u>Water Resources Research</u> 52, 3324-3349.

### Publications (2015) n=7

- 2015.1 **Zheng, Y.\*** and J. D. Ayotte. At the Crossroads: Hazard Assessment and Reduction of Health Risks from Arsenic in Private Well Waters of Northeastern America and Atlantic Canada. <u>Science of the Total Environment. 505:1237-1247.</u>
- 2015.2 Flanagan, S.V., R. G. Marvinney and **Y. Zheng\***. Influences on domestic well water testing behavior in a Central Maine area with frequent groundwater arsenic occurrence. <u>Science of the Total Environment</u>. 505:1274-1281
- 2015.3 Flanagan, S.V., R. G. Marvinney, R. A. Johnston, Q. Yang and Y. Zheng\*. Dissemination of well water arsenic results to homeowners in Central Maine: Influences on mitigation behavior and continued risks for exposure. <u>Science of the Total Environment</u>. 505:1282-1290.
- 2015.4 Yang, Q, C.W. Culbertson, M.G. Nielson, C.W. Schalk, C.D. Johnson, R.G. Marvinney, M. Stute and **Y.Zheng\***. Flow and sorption controls of groundwater

- arsenic in individual boreholes from bedrock aquifers in central Maine, USA. <u>Science</u> of the Total Environment. 1291-1307.
- 2015.5 O'Shea, B.\*\*, M. Stranskya, S. Leitheisera, P. Brock, R.G. Marvinneyc and Y. Zheng. Heterogenous arsenic enrichment in meta-sedimentary rocks in central Maine, United States. <u>Science of the Total Environment</u>. 505:1308-1319.
- 2015.6 N. Mladenov, Y. Zheng, B. Simone, T. Legg, D. McKnight, D. Nemergut, K. A Radloff, M M. Rahman, and K. M. Ahmed. (2015) Dissolved Organic Matter Quality in a Shallow Aquifer of Bangladesh: Implications for Arsenic Mobility. <u>Environ. Sci.</u> <u>Tech.</u> 49: 10815-10824.
- 2015.7 Hun Bok Jung\*\*, **Yan Zheng**; Mohammad W Rahman; Mohammad M Rahman; Kazi M Ahmed. 2015. Redox Zonation and Oscillation in the Hyporheic Zone of the Ganges-Brahmaputra-Meghna Delta: Implications for the Fate of Groundwater Arsenic during Discharge. <u>Applied Geochemistry</u>. 63: 647-660.

# Publications (2014): n=2

- 2014.1 Yang, Q., P. Smitherman, C. T. Hess, C. W. Culbertson, R. G. Marvinney, Smith, A. E. and **Y. Zheng\***. Uranium and radon in bedrock aquifers in central Maine: one family, two tales. <a href="mailto:Environ.Sci.Tech">Environ.Sci.Tech</a>. 48 (8):4298-4306.
- 2014.2 Sultana, S., Ahmed, K., Mahtab-Ul-Alam, S., Hasan, M., Tuinhof, A., Ghosh, S., Rahman, M., Ravenscroft, P., and **Zheng, Y.\*** (2014). Low-Cost Aquifer Storage and Recovery: Implications for Improving Drinking Water Access for Rural Communities in Coastal Bangladesh. <u>J. Hydrol. Eng.</u>, 10.1061/(ASCE)HE.1943-5584.0001100, B5014007.

#### Publications (2013): n=10

- 2013.1 Wen, D., Zhang, F., Zhang, E, Wang, C, Han, S. and **Zheng, Y.\*** 2013. Arsenic, Fluoride and Iodine in Groundwater of China. <u>Journal of Geochemical Exploration</u>, 135:1-21.
- 2013.2 Li, S., Wang, M., Yang, Q., Wang, H., Zhu, J., Zheng, B. and **Zheng, Y**.\*, 2013. Enrichment of Arsenic in Surface Water, Stream Sediments and Soils in Tibet. <u>Journal of Geochemical Exploration</u>135:104-116.
- 2013.3 **Zheng, Y.\***, S.A.Hakim, Q. Nahar, A. van Agthoven and S.V. Flanagan, 2013. Sanitation Coverage in Bangladesh since the Millennium: Consistency Matters.

  <u>Journal of Water, Sanitation and Hygiene Development</u>, 03.2:240-251
- 2013.4 Flanagan, S.V., X. Meng and **Y. Zheng\***, 2013. Increasing acceptance to chlorination for household water treatment: Observations from Bangladesh. <u>Waterlines</u>, 32:125-134
- 2013.5 Mailloux BJ\*, Trembath-Reichert E, Cheung J, Watson M, Stute M, Freyer G, Ferguson A, Ahmed KM, Alam MJ, Bucholz BA, Thomas J, Layton A, **Zheng Y**, Bostick BC, van Geen A. 2013, Advection of surface-derived organic carbon fuels

- microbial reduction in Bangladesh groundwater. <u>Proceedings of the National Academy of Sciences</u>, 110(14):5331-5. doi: 10.1073/pnas.1213141110.
- 2013.6 George, C.M.\*\*, Inauen, J., Rahman, S. and **Zheng, Y.,** 2013. The Effectiveness of Educational Interventions to Enhance the Adoption of Fee-based Arsenic Testing in Bangladesh: A Cluster Randomized Controlled Trial. <u>American Journal of Tropical Medicine & Hygiene</u>, doi:10.4269/ajtmh.12-0664
- 2013.7 Zhang, Y., Li, S., Wang, H., Wang, M., Zeng, B., Zheng, L., Yang, Q., 4 and **Zheng, Y.**\* 2013. Evaluation of Arsenic Speciation of Stream and Hot Spring Deposits through X-ray Absorption Spectroscopy and Sorption Experiment. <u>Acta Geologica Sinica (English Edition)</u>, 87(supp.): 665-666.
- 2013.8 Li, S., Wang, M., Wang, H., Zhang, Y., Zheng, B., Yang, Q. and **Zheng, Y.\***, 2013. Enrichment of Arsenic in Rivers Originating from the Tibetan Plateau. <u>Acta Geologica Sinica (English Edition)</u>, 87(supp.): 638-639.
- 2013.9 Zhou, M., Clauson, K. M., Sun, Z., Zheng, C. and **Zheng, Y.\*,** 2013. Preliminary Assessment of Chemical Characteristics of Dissolved Organic Carbon in Surface Waters of the Hulugou Watershed, Qinghai-Tibetan Plateau. <u>Acta Geologica Sinica (English Edition)</u>, 87(supp.): 669-671.
- 2013.10. Zheng, Y., Yang, Q., Seltzer, A.M., Hemming, N. G. and Hemming, S. R. 2013.

  Provenance of High Arsenic Holocene Sediment and Low Arsenic Pleistocene
  Sediment in Bangladesh Aquifers: A Preliminary Assessment. <u>Acta Geologica Sinica (English Edition)</u>, 87(supp.): 667-668.

#### Publications (2012): n=7

- 2012.1 Jung, H.B.\*\*, Yun, S.T., Kwon, J.S., **Zheng, Y.** (2012) Role of iron colloids in copper speciation during neutralization in a coastal acid mine drainage, South Korea: Insight from voltammetric analyses and surface complexation modeling. <u>Journal of Geochemical Exploration</u>, 112:244-251.
- 2012.2 He, Y.\*, C. Pedigo, B. Lam, Z. Cheng and **Y. Zheng** (2012) Bioaccessibility of arsenic in various types of rice in an *in vitro* gastrointestinal fluid system. <u>Journal of Environmental Science and Health</u>, Part B, 47:74-80.
- 2012.3 Jung, H.B., B. Bostick, **Y. Zheng**\*. (2012) Field, Experimental, and Modeling Study of Arsenic Partitioning across a Redox Transition in a Bangladesh Aquifer. <u>Environ. Sci. Tech.</u> 46 (3), 1388-1395.
- 2012.4 Yang, Q., H.B.Jung, R. G. Marvinney, C. W. Culbertson and **Y. Zheng**\*. (2012) Can arsenic occurrence rate in bedrock aquifers be predicted? <u>Environ. Sci. Tech.</u> 46 (4), 2080-2087.
- 2012.5 Legg, T.\*, Y. Zheng, B. Simone, K. A. Radloff, N. Mladenov, A/ González Peña, D. Knights, H. Siu, M. Mo. Rahman, K. M. Ahmed, D. M. McKnight, D. R. Nemergut. (2012). Carbon, metals and grain size correlate with bacterial community composition in sediments of a high arsenic aquifer. <a href="Frontiers in Terrestial\_Microbiology">Frontiers in Terrestial\_Microbiology</a>, 3(82), 23

- 2012.6 George CM\*\*, **Zheng Y**, Graziano JH, Hossain Z, Rasul SB, Mey JL, et al. Evaluation of an arsenic test kit for rapid well screening in Bangladesh. <u>Environ Sci</u> Technol 2012. 46(20), 11213-11219
- 2012.7 Flanagan, S.V., Jonston, R.B and **Zheng, Y.\*** 2012. Arsenic in tube well water in Bangladesh: health and economic impacts and implications for arsenic mitigation, Bulletin of WHO, 90(11), 839-846.

# Publications (2011): n=2

- 2011. 1 Radloff, K.A.\*\*, **Zheng, Y.**, Michael, H.A., Stute, M., Bostick, B.C., Mihajlov, I., Bounds, M., Huq, M.R., Choudhury, I., Rahman, M.W., Schlosser, P., Ahmed, K.M. and van Geen, A. (2011) Arsenic migration to deep groundwater in Bangladesh influenced by adsorption and water demand. Nature Geoscience, 4(11): 793-798.
- 2011.2 Dhar R.\*\*, **Zheng Y.**, Saltikov C.W., Radloff K.A., Mailloux B.A., Ahemd K.M. and van Geen A. (2011) Microbes enhance mobility of arsenic in Pleistocene aquifer sand from Bangladesh. Environ. Sci. Tech. 45:2648-2654

#### Publications (2010): n=6

- 2010.1 Mladenov N.\*\*, **Zheng Y.**, Miller M. P., Legg T., Simone B., Hageman C., Rahman M. M., Ahmed K. M., and McKnight D. M. (2010) Dissolved organic matter sources and consequences for iron and arsenic mobilization in Bangladesh aquifers. <u>Environ.</u> Sci. Tech. 44:123-128.
- 2010.2 He, Y.\*\* and **Zheng, Y**. (2010) Assessment of *in vivo* Bioaccessibility of Arsenic in Dietary Rice by a Mass Balance Approach. <u>Science of the Total Environment</u>, 408:1430-1436.
- 2010.3 Paul M.\*, Reisberg L., Vigier N., **Zheng Y**., Ahmed K. M., Charlet L., and Huq M. R. (2010) Dissolved osmium in Bengal plain groundwater: Implications for the marine Os budget. Geochimica et Cosmochimica Acta 74(12): 3432
- 2010.4 Garnier J. M.\*, Travassac F., Lenoble V., Rose J., **Zheng Y.**, Hossain M. S., Chowdhury S. H., Biswas A. K., Ahmed K. M., Cheng Z., and van Geen A.\*\* (2010) Temporal variations in arsenic uptake by rice plants in Bangladesh: The role of iron plaque in paddy fields irrigated with groundwater. Science of The Total Environment 19:4185-4193.
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# Courses Taught at the City University of New York

# Undergraduate

GEOL25	Natural Resources and the Environment
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ENSCI 100	Our Planet in the 21st Century: Challenges to Humanity
ENSCI 111	Introduction to the Environment
ENCI 112	Our Changing Planet: Earth System Science
GEOL270	Geochemistry of the Global Environment
ENSCI373	Environmental Problem Solving
GEOL383	Analytical Methods in Environmental Geochemistry

# Graduate

EES1883	Environmental Problems of Urban and Metropolitan Coasts
EES1889	Isotope Tracers in the Environment
GEOL760	Environmental Geochemistry
GEOL766	Analytical Techniques in Environmental Geosciences

# Courses Taught at the SUSTech Undergraduate

ESE322 Environment and Health

ESE202 Environment: A Critical Introduction

# **SUSTech Services**

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2016/10-present 环境科学与工程学院实验公共平台及安全委员会主任

2016/10-present 前沿交叉学院学术委员会委员

2016/10-present 校化学品管理及实验室安全委员会委员

2016/10-present 校图书馆委员会委员

2016/9-present 环境科学与工程学院 2014 级本科生班主任

2016/9-present 环境科学与工程学院学术委员会委员

#### **Conference Abstract**

#### 2016

- Sara V Flanagan, Steven E Spayd, Nicholas A Procopio, Steven N Chillrud, Stuart Braman, Robert G Marvinney, Andrew E Smith, and Yan Zheng (2016). Reducing exposure to arsenic from private well water: Evidence for policy intervention from New Jersey. Abstract for American Public Health Association (APHA) Annual Meeting, Oct 29 Nov 02, 2016, Denver, Colorado
- Sara V Flanagan, Steven E Spayd, Nicholas A Procopio, Steven N Chillrud, Stuart Braman, Robert G Marvinney, Andrew E Smith, 5 and Yan Zheng (2016). Reducing exposure to arsenic from private well water: Who benefits most from traditional testing promotion? Abstract for American Public Health Association (APHA) Annual Meeting, Oct 29 Nov 02, 2016, Denver, Colorado

#### 2017

- Wengeng Cao and Yan Zheng (2017) Evaluation of managed aquifer recharge site suitability for the North China Plain. Abstract for the 44<sup>th</sup> annual congress of the international association of hydrogeologists, Sept 25-29, 2017, Dubrovnik, Croatia
- Xin He, Jens Christian Refsgaard, Huanhuan Qin, Chunmiao Zheng and Yan Zheng (2017) Potential of using managed aquifer recharge to restore groundwater aquifers in North China Plain.

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- Yan Zheng, Qiang Yang, Shehong Li, Yinfeng Zhang, Sidney R. Hemming, Troy Rasbury, N. Gary Hemming (2017) 孟加拉国低砷和高砷地下水沉积物来源同位素示踪研究. Abstract for the 9<sup>th</sup> National Conference on Environmental Chemistry (Invited Keynote Speaker), Oct 19-22, 2017, Hanzhou, China
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- Yan Zheng, Sara V Flanagan and Qiang Yang (2018) Arsenic Mitigation among Private Well Households in Maine and New Jersey: Challenges and Opportunities. Abstract for the Geological Society of America northeastern section meeting (Invited Keynote Speaker), March 18-20, Burlington, Vermont, USA
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Ma Meng's BSMAR abstract