

EDUCATION

Ph.D., 08.2007-12.2012, Environmental Engineering, University of California, Berkeley

M.S., 08.2005-07.2007, Environmental Science and Engineering, Tsinghua University, Beijing, China

B.S., 09.2001-07.2005, Environmental Engineering, Tsinghua University, Beijing, China

EMPLOYMENT HISTORY

07.2019 – *present*, Assistant Professor, Department of Chemical and Environmental Engineering,
University of California, Riverside, CA, U.S.

03.2016 – 06.2019, Assistant Professor, Department of Civil and Environmental Engineering, University
of Illinois at Urbana-Champaign, Champaign, IL, U.S.

01.2014 – 03.2016, Postdoctoral researcher, Department of Environmental Chemistry, Eawag, Swiss
Federal Institute of Aquatic Science, Switzerland.

01.2013 – 12.2013, Postdoctoral scholar, Engineering Research Center (ERC) for Re-inventing the
Nation's Urban Water Infrastructure (ReNUWIt), Department of Civil and
Environmental Engineering, University of California, Berkeley, CA, U.S.

09.2012 – 12.2012, Postdoctoral scholar, Department of Civil and Environmental Engineering, University
of California, Berkeley, CA, U.S.

RESEARCH AREAS

- Fate of contaminants of emerging concerns (CECs) in natural and engineered environments.
- Ecological roles of environmental microbes and microbial interactions in microbial communities for biodegradation and bioremediation.
- Discovery of microbes with novel functions for pollutant degradation.
- Impacts of CECs on the development, proliferation, and transmission of antibiotic resistance during wastewater treatment processes and water/biosolids reuse applications.

PUBLICATIONS (*: corresponding author; †: equal contribution)

55. Jin, B., Che, S., Gao, J., Yu, Y., Liu, Z., Liu, J., and **Men, Y.*** (2023). Significant defluorination of polychlorofluorocarboxylic acids triggered by anaerobic microbial hydrolytic dechlorination. *Nat. Water*. 1: 451-461. DOI: [10.1038/s44221-023-00077-6](https://doi.org/10.1038/s44221-023-00077-6).

54. Gao, J., Liu, Z., Chen, Z., Rao, D., Che, S., Gu, C., **Men, Y.**, Huang, J., and Liu, J. (2023). Photochemical degradation pathways and near-complete defluorination of chlorinated polyfluoroalkyl substances. *Nat. Water*. 1: 381-390. DOI: [10.1038/s44221-023-00046-z](https://doi.org/10.1038/s44221-023-00046-z).

53. Han, P.*, Rios-Miguel, A.B., Tang, X., Yu, Y., Zhou, L.J.*, Hou, L.J., Liu, M., Zhao, Q., Sun, D., Jetten M.S.M., Welte, C.U., **Men, Y.***, Lückner, S. (2023). Benzimidazole fungicide biotransformation by comammox *Nitrospira* bacteria: transformation pathways and associated proteomic responses. *J. Hazard. Mater.* 445: 130558. DOI: [10.1016/j.jhazmat.2022.130558](https://doi.org/10.1016/j.jhazmat.2022.130558).
52. Ashworth, D.J., Ibekwe, A.M., **Men, Y.**, Ferreira, J.F.S. (2023). Dissemination of antibiotics through the wastewater-soil-plant-earthworm continuum. *Sci. Total Environ.* 858(3): 159841. DOI: [10.1016/j.scitotenv.2022.159841](https://doi.org/10.1016/j.scitotenv.2022.159841).
51. Chen, G., Liu, S., Shi, Q., Gan, J., Jin, B., **Men, Y.**, Liu, H. (2022). Hydrogen-polarized vacuum ultraviolet photolysis system for enhanced destruction of perfluoroalkyl substances. *J. Hazard. Mater. Lett.* 3: 100072. DOI: [10.1016/j.hazl.2022.100072](https://doi.org/10.1016/j.hazl.2022.100072).
50. Su, Z., Liu, T., **Men, Y.**, Li, S., Graham, N., Yu, W. (2022). Understanding point-of-use tap water quality: From instrument measurement to intelligent analysis using sample filtration. *Water. Res.* 225: 119205. DOI: [10.1016/j.watres.2022.119205](https://doi.org/10.1016/j.watres.2022.119205).
49. Xing, Y., Herrera D., Zhang, S., Kang X., **Men, Y.*** (2022). Site-specific target-modification mutations exclusively induced by the coexposure to low levels of pesticides and streptomycin caused strong streptomycin resistance in clinically relevant *Escherichia coli*. *J. Hazard. Mater. Adv.* 7: 100141. DOI: [10.1016/j.hazadv.2022.100141](https://doi.org/10.1016/j.hazadv.2022.100141).
48. Li, L., Zhang, Z., **Men, Y.**, Baskaran, S., Sangion, A., Wang, S., Arnot, J.A., Wania, F. (2022). Retrieval, selection, and evaluation of chemical property data for assessments of chemical emissions, fate, hazard, exposure, and risks. *ACS Environ. Au.* DOI: [10.1021/acsenvironau.2c00010](https://doi.org/10.1021/acsenvironau.2c00010).
47. Ye X, Nan J, Ge Z, Xiao Q, Liu B, **Men Y**, Liu J. (2022). Simultaneous removal of iron, manganese, and ammonia enhanced by preloaded MnO₂ on low-pressure ultrafiltration membrane. *J. Membr. Sci.* 656: 120641. DOI: [10.1016/j.memsci.2022.120641](https://doi.org/10.1016/j.memsci.2022.120641).
46. Yu Y, Che S, Ren C, Jin B, Tian Z, Liu J, **Men Y***. (2022). Microbial defluorination of unsaturated per- and polyfluorinated carboxylic acids under anaerobic and aerobic conditions: A structure specificity study. *Environ. Sci. Technol.* 56(8): 4894-4904. DOI: [10.1021/acs.est.1c05509](https://doi.org/10.1021/acs.est.1c05509).
45. Gao J, Liu Z, Bentel MJ, Yu Y, **Men Y**, Liu J. (2021). Defluorination of omega-hydroperfluorocarboxylates (ω-HPFCAs): Distinct reactivities from perfluoro and fluorotelomeric carboxylates. *Environ. Sci. Technol.* 55(20): 14146-14155. DOI: [10.1021/acs.est.1c04429](https://doi.org/10.1021/acs.est.1c04429).
44. Fenner K, **Men Y**. (2021). Comment on “Role of Ammonia Oxidation in Organic Micropollutant Transformation during Wastewater Treatment”: Overlooked Evidence to the Contrary. *Environ. Sci. Technol.* 55(4): 2173-2188. DOI: [10.1021/acs.est.1c04178](https://doi.org/10.1021/acs.est.1c04178).
43. Xing Y, Kang X, Zhang S, **Men Y*** (2021). Specific phenotypic, genomic, and fitness evolutionary trajectories toward streptomycin resistance induced by pesticide co-stressors in *Escherichia coli*. *ISME Commun.* 1: Article number 39. DOI: [10.1038/s43705-021-00041-z](https://doi.org/10.1038/s43705-021-00041-z).
42. Che S, Jin B, Liu Z, Yu Y, Liu J, **Men Y.*** (2021). Structure-specific aerobic defluorination of short-chain fluorinated carboxylic acids by activated sludge communities. *Environ. Sci. Technol. Lett.* 8(8): 668-674. DOI: [10.1021/acs.estlett.1c00511](https://doi.org/10.1021/acs.estlett.1c00511).
41. Lin H, Wang Q, Zhou J, Wang D, **Men Y**, Bai Y, Qu J. (2021). Recovery trajectories and community resilience of biofilms in receiving rivers after wastewater treatment plant upgrade. *Environ. Res.* 199: 111349. DOI: [10.1016/j.envres.2021.111349](https://doi.org/10.1016/j.envres.2021.111349).

40. Liu Z, Bentel MJ, Yu Y, Ren C, Gao J, Pulikkal VF, Sun M, **Men Y**, Liu J. (2021). Near-quantitative defluorination of perfluorinated and fluorotelomer carboxylates and sulfonates with integrated oxidation and reduction. *Environ. Sci. Technol.* 55(10): 7052-7062. DOI: [10.1021/acs.est.1c00353](https://doi.org/10.1021/acs.est.1c00353).
39. Sheng Q, Yi M, **Men Y**, Lu H. (2021). Cometabolism of 17 α -ethynylestradiol by nitrifying bacteria depends on reducing power availability and leads to elevated nitric oxide formation. *Environ. Int.* 153: 106528. DOI: [10.1016/j.envint.2021.106528](https://doi.org/10.1016/j.envint.2021.106528).
38. Zhou LJ, Han P, Zhao M, Yu Y, Sun, D, Hou L, Liu M, Zhao Q, Tang X, Klümper U, Gu J, **Men Y**, Wu Q. (2021). Biotransformation of lincomycin and fluoroquinolone antibiotics by the ammonia oxidizers AOA, AOB and comammox: A comparison of removal, pathways, and mechanisms. *Water Res.* 196: 117003. DOI: [10.1016/j.watres.2021.117003](https://doi.org/10.1016/j.watres.2021.117003).
37. Yu Y, Zhang K, Li Z, Ren C, Chen J, Lin YH, Liu J, **Men Y**.* (2020). Microbial cleavage of C–F bonds in two C₆ per- and polyfluorinated compounds via reductive defluorination. *Environ. Sci. Technol.* 54(22): 14393-14402. DOI: [10.1021/acs.est.0c04483](https://doi.org/10.1021/acs.est.0c04483).
36. Kim, K., Medina, P. B., Elbert, J., Kayiwa E., Cusick R. D., **Men, Y.**, Su, X. (2020). Molecular tuning of redox-copolymers for selective electrochemical remediation. *Adv. Funct. Mater.* DOI: [10.1002/adfm.202004635](https://doi.org/10.1002/adfm.202004635).
35. Xing Y, Wu S, **Men Y***. (2020). Exposure to environmental levels of pesticides stimulates and diversifies evolution in *Escherichia coli* toward higher antibiotic resistance. *Environ. Sci. Technol.* 54(14): 8770–8778. DOI: [10.1021/acs.est.0c01155](https://doi.org/10.1021/acs.est.0c01155).
34. Bentel M, Liu Z, Yu Y, Gao J, **Men Y**, Liu J. (2020). Enhanced degradation of perfluorocarboxylic acids (PFCAs) by UV/sulfite treatment: Reaction mechanisms and system efficiencies at pH 12. *Environ. Sci. Technol. Lett.* 7(5): 351-357. DOI: [10.1021/acs.estlett.0c00236](https://doi.org/10.1021/acs.estlett.0c00236).
33. Bentel M, Yu Y, Xu L, Kwon H, Li Z, Wang B, **Men Y**, Liu J. (2020). Degradation of perfluoroalkyl ether carboxylic acids (PFECAs) with hydrated electrons: Structure-reactivity relationships and environmental implications. *Environ. Sci. Technol.* 54(4): 2489-2499. DOI: [10.1021/acs.est.9b05869](https://doi.org/10.1021/acs.est.9b05869).
32. Han P[†], Yu Y[†], Zhou LJ, Tian Z, Li Z, Hou L, Liu M, Wu Q, Wagner M, **Men Y***. (2019). Specific micropollutant biotransformation pattern by the comammox bacterium *Nitrospira inopinata*. *Environ. Sci. Technol.* 53(15): 8695-8705. DOI: [10.1021/acs.est.9b01037](https://doi.org/10.1021/acs.est.9b01037).
31. Che S, **Men Y***. (2019). Synthetic microbial consortia for biosynthesis and biodegradation: promises and challenges. *J Ind Microbiol Biotechnol.* 46: 1343-1358. DOI: [10.1007/s10295-019-02211-4](https://doi.org/10.1007/s10295-019-02211-4).
30. Zhou LJ, Han P, Yu Y, Wang B, **Men Y**, Wagner M, Wu QL. (2019). Cometabolic biotransformation and microbial-mediated abiotic transformation of sulfonamides by three ammonia oxidizers. *Water Res.* 159: 444 – 453. DOI: [10.1016/j.watres.2019.05.031](https://doi.org/10.1016/j.watres.2019.05.031).
29. Bentel M, Yu Y, Xu L, Li Z, Wong B, **Men Y**, Liu J. (2019). Defluorination of Per- and Polyfluoroalkyl Substances (PFASs) with Hydrated Electrons: Structural Dependence and Implications to PFAS Remediation and Management. *Environ. Sci. Technol.* 53(7): 3718-3728. DOI: [10.1021/acs.est.8b06648](https://doi.org/10.1021/acs.est.8b06648).
28. Mansfeldt CB, Achermann S, **Men Y**, Walser JC, Johnson D, Fenner K. (2019). Residence time is an experimentally and mathematically demonstrated controlling parameter of the taxonomic and functional composition of microbial communities. *ISME J.* DOI: [10.1038/s41396-019-0371-6](https://doi.org/10.1038/s41396-019-0371-6).
27. Achermann S, Falås P, Joss A, Mansfeldt C, **Men Y**, Vogler B, Fenner K. (2018). Trends in micropollutant

- biotransformation along a solids retention time gradient. *Environ. Sci. Technol.* **52**: 11601-11611. DOI: [10.1021/acs.est.8b02763](https://doi.org/10.1021/acs.est.8b02763).
26. Xing Y, Yu Y, **Men Y***. (2018). Occurrence and fate of emerging organic contaminants in wastewater treatment plants with an enhanced nitrification step. *Environ. Sci.: Water Res. Technol.* **4**: 1412-1426. DOI: [10.1039/C8EW00278A](https://doi.org/10.1039/C8EW00278A).
 25. Yu Y[†], Han P[†], Zhou LJ, Li Z, Wagner M, **Men Y***. (2018) Ammonia monooxygenase-mediated cometabolic biotransformation and abiotic transformation of micropollutants in an AOB/NOB co-culture. *Environ. Sci. Technol.* **52**: 9196-9205. DOI: [10.1021/acs.est.8b02801](https://doi.org/10.1021/acs.est.8b02801).
 24. Wang Q, Tan GYA, Azari M, Huang X, Denecke M, **Men Y**, Jung JY, Okabe S, Ali M, Huang YT, Wu Z, Lo W, Gu JD, Lin JG, Lee PH. (2018). Insights into the roles of anammox bacteria in post-treatment of anaerobically-treated sewage. *Crit. Rev. Environ. Sci. Technol.* **48**: 655-684. DOI: [10.1080/10643389.2018.1474679](https://doi.org/10.1080/10643389.2018.1474679).
 23. **Men Y***[†], Yu K[†], Tremblay J, Bælum J, Prestat E, Stenuit B, Tringe SG, Jansson JR, Zhang T, Alvarez-Cohen L. (2017). Metagenomic and metatranscriptomic analyses reveal structure and dynamics of a dechlorinating community containing *Dehalococcoides mccartyi* and corrinoid-providing microorganisms under cobalamin-limited condition. *Appl. Environ. Microbiol.* **83** (8), e03508-16. DOI: [10.1128/AEM.03508-16](https://doi.org/10.1128/AEM.03508-16).
 22. **Men Y***, Achermann S, Johnson DR, Helbling DE, Fenner K. (2017). Relative contribution of ammonia oxidizing bacteria and other members of nitrifying activated sludge communities to micropollutant biotransformation. *Water Res.* **109**: 217-226. DOI: [10.1016/j.watres.2016.11.048](https://doi.org/10.1016/j.watres.2016.11.048).
 21. Liang J, Bai Y, **Men Y**, Qu J. (2017). Microbe-microbe interactions trigger Mn(II)-oxidizing gene expression. *ISME J.* **11**: 67-77. DOI: [10.1038/ismej.2016.106](https://doi.org/10.1038/ismej.2016.106).
 20. **Men Y**, Han P, Helbling DE, Jehmlich N, Herbold C, Gulde R, Onnis-Hayden A, Gu A, Johnson DR, Wagner M, Fenner K. (2016). Biotransformation of two pharmaceuticals by the ammonia-oxidizing archaeon *Nitrososphaera gargensis*. *Environ. Sci. Technol.* **50**: 4682-4692.
 19. Johnson DR, Helbling DE, **Men Y**, Fenner K. (2015). Can meta-omics help to establish causality between contaminant biotransformations and genes or gene products? *Environ. Sci.: Water Res. Technol.* **1**: 272-278.
 18. Lee PKH, **Men Y**, Wang S, He J, Alvarez-Cohen L. (2015). Development of a fluorescence-activated cell sorting method coupled with whole genome amplification to analyze minority and trace *Dehalococcoides* genomes in microbial communities *Environ. Sci. Technol.* **49**:1585-93.
 17. **Men Y***[†], Seth EC[†], Yi S, Crofts TS, Allen RH, Taga ME, Alvarez-Cohen L. (2015). Identification of specific corrinoids reveals corrinoid modification in dechlorinating microbial communities. *Environ. Microbiol.* **17**: 4873-4884.
 16. Crofts TS, **Men Y**, Alvarez-Cohen L, Taga M. (2014). A bioassay for the detection of benzimidazoles reveals their presence in a range of environmental samples. *Front. Microbiol.* **5**: 592.
 15. Zhuang WQ, Yi S, Bill M, Brisson V, Feng X, **Men Y**, Conrad ME, Tang Y, Alvarez-Cohen L. (2014). The incomplete Wood-Ljungdahl pathway facilitates a novel one-carbon metabolism in organohalide-respiring *Dehalococcoides mccartyi*. *Proc. Natl. Acad. Sci. U. S. A.* **111**: 6419-6424.
 14. **Men Y**, Seth EC, Yi S, Allen RH, Taga ME, Alvarez-Cohen L. (2014). Sustainable growth of *Dehalococcoides mccartyi* 195 by corrinoid salvaging and remodeling in defined lactate-fermenting

- consortia containing *Pelosinus fermentans* R7. *Appl. Environ. Microbiol.* **80**: 2133-2141.
13. **Men Y**, Lee PKH, Harding KC, Alvarez-Cohen L. (2013). Characterization of four TCE-dechlorinating microbial enrichments grown with different cobalamin stress and methanogenic conditions. *Appl. Microbiol. Biotechnol.* **97**: 6439-6450.
 12. Yi S, Seth EC, **Men YJ**, Allen RH, Alvarez-Cohen L, Taga ME. (2012). Versatility in corrinoid salvaging and remodeling pathways supports the corrinoid-dependent metabolism of *Dehalococcoides maccartyi*. *Appl. Environ. Microbiol.* **78**: 7745-7752.
 11. **Men Y[†]**, Feil H[†], VerBerkmoes NC, Shah MB, Johnson DR, Lee PKH, West KA, Zinder SH, Andersen GL, Alvarez-Cohen L. (2012). Sustainable syntrophic growth of *Dehalococcoides ethenogenes* strain 195 with *Desulfovibrio vulgaris* Hildenborough and *Methanobacterium congolense*: global transcriptomic and proteomic analyses. *ISME J.* **6**: 410-421.
 10. Zhang X, Hu HY, **Men YJ**, Christoffersen KS. (2010). The effect of *Poterioochromonas* abundance on production of intra- and extracellular microcystin-LR concentration. *Hydrobiologia* **652**: 237-246.
 9. Zhang X, Hu HY, **Men YJ**, Yang J, Christoffersen KS (2009). Feeding characteristics of a golden alga (*Poterioochromonas* sp.) grazing on toxic cyanobacterium *Microcystis aeruginosa*. *Water Res.* **43**: 2953-2960.
 8. **Men YJ**, Hu HY, Li FM. (2007). Effects of a Novel Allelochemical Ethyl-2-methylacetoacetate in *Phragmites australis* Trin on the Growth of Several Common Species of Algae. *J. Appl. Phycol.* **19**: 521-527.
 7. Li FM, Hu HY, Chong YX, **Men YJ**, Guo MT. (2007). Influence of EMA isolated from *Phragmites communis* on physiological characters of *Microcystis aeruginosa*. *China Environ. Sci.* **27**: 377-381. (In Chinese)
 6. Li FM, Hu HY, Chong YX, Guo MT, **Men YJ**. (2007). Effects of allelochemical isolated from *Phragmites communis* on algal membrane permeability. *Huan Jing Ke Xue (Environ. Sci.)*. **28**: 2453-2456. (In Chinese)
 5. **Men YJ**, Li FM, Hu HY. (2007). Effects of an Allelopathic Fraction in *Phragmites communis* Trin on the Growth Characteristics of *Selenastrum capricornutum* and *Chlamydomonas reinhardtii*. *J. Lake Sci.* **4**: 473-478. (In Chinese)
 4. Li FM, Hu HY, Chong YX, **Men Y**, Guo MT. (2007). Effects of allelochemical EMA isolated from *Phragmites communis* on algal cell membrane lipid and ultrastructure. *Huan Jing Ke Xue (Environ. Sci.)*. **28**: 1534-1538. (In Chinese)
 3. Li FM, Hu HY, **Men YJ**, Hong Y, Guo MT. (2006). Effects of EMA on activities of algal antioxidant enzymes. *Huan Jing Ke Xue (Environ. Sci.)*. **27**: 2091-2094. (In Chinese)
 2. **Men YJ**, Hu HY, Li FM. (2006). Effects of an Allelopathic Fraction from *Phragmites communis* Trin on the Growth Characteristics of *Scenedesmus obliquus*. *Ecol. Environ.* **15**: 925-929. (In Chinese)
 1. Hu HY, **Men YJ**, Li FM. (2006). Research process on phyto-allelopathic algae control. *Ecol. Environ.* **15**: 153-157. (In Chinese)

PENDING PUBLICATIONS

1. Che, S.[†], Rodrigues R.[†], Guan, X., Yu, Y., Liu, C.*, **Men, Y.*** (2023). Synergistic material-microbe interface toward deeper anaerobic defluorination. ChemRxiv preprint, DOI: [10.26434/chemrxiv-2023-4fl4q](https://doi.org/10.26434/chemrxiv-2023-4fl4q). Under review.

PRESENTATIONS

58. **Men Y.** (11.2022). Discover the Power of the “Small” – Microbe-Environment Nexus. Plants3D Retreat, UC, Riverside (Invited Talk)
57. **Men Y.** (11.2022). Effects of non-antibiotic and antibiotic co-exposure on the development of antibiotic resistance in *E. coli* populations. Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences (Invited Webinar)
56. **Men Y.** (10.2022). Microbial defluorination of per- and polyfluorinated compounds: the current status, promise, and challenges. BioTechnology Institute Seminar, University of Minnesota, MN (Invited Talk)
55. Jin B., et al. (08.2022). Anaerobic biotransformation and biodefluorination of chlorine-substituted perfluorinated carboxylic acids. ACS National Meeting Fall 2022 (Oral presentation for the ACS ENVR Gonter Graduate Student Paper Award)
54. Jin B., et al. (06.2022). Anaerobic biotransformation and biodefluorination of chlorine-substituted perfluorinated carboxylic acids. ACE22, AWWA, San Antonio, TX (Oral presentation)
53. **Men Y.** (06.2022). Substantial defluorination of polychlorofluorocarboxylic acids triggered by anaerobic microbial hydrolytic dechlorination. 2022 Environmental Sciences: Water, Gordon Research Conference (Holderness School, NH; Poster Presentation)
52. **Men Y.** (05.2022). Bioremediation of per- and polyfluoroalkyl substances (PFAS): Is it feasible? 12th International Conference on Remediation of Chlorinated and Recalcitrant Compounds, Battelle Chlorinated Conference 2022 (Palm Springs, CA; Poster Presentation)
51. Jin B., et al. (05.2022). Anaerobic biotransformation and biodefluorination of chlorine-substituted perfluorinated carboxylic acids. 12th International Conference on Remediation of Chlorinated and Recalcitrant Compounds, Battelle Chlorinated Conference 2022 (Palm Springs, CA; Oral presentation for the Student Paper Award)
50. **Men Y.** (05.2022). Effects of non-antibiotic and antibiotic co-exposure on the development and propagation of antibiotic resistance in *E. coli* populations. Seminar Series of the Department of Civil and Environmental Engineering, University of California, Irvine (Invited Talk)
49. **Men Y.** (04.2022). Microbial defluorination of per- and polyfluorinated compounds: the current status, promise, and challenges. Environmental Microbiology Webinar, Eawag, Switzerland (Invited Talk)
48. **Men Y.** (03.2022). Effects of non-antibiotic and antibiotic co-exposure on the development of antibiotic resistance in *E. coli* populations. 17th IWA Leading Edge Conference on Water and Wastewater Technologies (Reno, NV; Oral presentation)
47. Jin B., et al. (03.2022). Anaerobic biotransformation and biodefluorination of chlorine-substituted perfluorinated carboxylic acids. ACS National Meeting Spring 2022 (San Diego, CA; Oral presentation, ACSenvr-SETAC Exchange Award)

46. Yu Y., et al. (03.2022). Microbial Defluorination of Unsaturated Per- and Polyfluorinated Carboxylic Acids under Anaerobic and Aerobic Conditions: A Structure Specificity Study. ACS National Meeting Spring 2022 (San Diego, CA; Virtual Oral presentation)
45. Che S., et al. (03.2022). Structure-Specific Aerobic Defluorination of Short-Chain Fluorinated Carboxylic Acids by Activated Sludge Communities. ACS National Meeting Spring 2022 (San Diego, CA; Oral presentation)
44. **Men Y.** (03.2022). Characterization of a defluorinating microbial enrichment: physiology and community composition. ACS National Meeting Spring 2022 (San Diego, CA; Oral presentation)
43. **Men Y.** (02.2022). Effects of non-antibiotic and antibiotic co-exposure on the development of antibiotic resistance in *E. coli* populations. Environmental Engineering Seminar, Arizona State University (Invited Talk)
42. **Men Y.** (12.2021). How powerful microorganisms can act in good and bad ways when facing environmental contaminants. iFAST Symposium: Environmental Biotechnology: To celebrate Perry L. McCarty's 90th birthday and honor his outstanding contributions to environmental biotechnology (Virtual; Invited Talk)
41. **Men Y.** (12.2021). Microbial defluorination of organofluorines. Environmental Toxicology Seminar, University of California, Riverside. (Virtual; Invited Talk).
40. **Men Y.** (07.2021). Impacts of non-antibiotic micropollutants on the emergence and propagation of antibiotic resistance in *E. coli* populations. 5th International Symposium for Persistent, Bioaccumulating, and Toxic Substances (Hybrid, Beijing China, Invited Oral Presentation)
39. **Men Y.** (12.2020). Bioremediation of PFAS: Promise and Challenges. SERDP Symposium 2020 (Virtual, Invited Oral Presentation).
38. **Men Y.** (11.2020). Organic contaminants of emerging concerns: environmental fate and impacts. Zhejiang University (Virtual, Invited Talk).
37. Xing Y., et al. (08.2020). Exposure to environmental levels of pesticides stimulates and diversifies evolution in *Escherichia coli* toward higher antibiotic resistance. ACS National Meeting Fall 2020 (Virtual oral, ACS ENVR Gonter Graduate Student Paper Award presentation)
36. **Men Y.** (07.2020). Identification, characterization, and application of reductive dechlorination microorganisms. SERDP PFAS Meeting (Virtual, Poster Presentation).
35. **Men Y.** (10.2019). Effects of pesticides on antibiotic resistance emergence, propagation, and transmission. Department of Microbiology & Plant Pathology 250 Seminar Series, University of California, Riverside. (Invited Talk).
34. **Men Y.** (08.2019). Organic contaminants of emerging concerns: Environmental fate and impacts. Symposium "Showcasing emerging investigators & future perspectives: A symposium by the RSC Environmental Science Journals" at ACS National Meeting Fall 2019, San Diego CA (Invited Talk).
33. Yu Y., et al. (08.2019). "Reductive defluorination of per- and polyfluoroalkyl substances by a dechlorinating microbial community" at ACS National Meeting Fall 2019, San Diego CA
32. Xing Y., et al. (06.2020). Exposure to Environmental Level Pesticides Stimulates and Diversifies Evolution in *Escherichia coli* towards Antibiotic Resistance. ASM Microbe, San Francisco CA (Poster, Student Travel Grant).
31. **Men Y.** (06.2019). Organic contaminants of emerging concerns: environmental fate and impacts.

Washington University in St Louis, MO, U.S. (Invited Talk)

30. Xing Y., **Men Y.** (05.2019). Evolution Towards Antibiotic Resistance Induced by Environmental-Level Pesticides. Emerging Contaminants in the Environment Conference 2019, Champaign IL (Oral presentation).
29. Liu J., Bentel M., Yu Y., Xu L., Wong BM., **Men Y.** (05.2019). Destruction of PFASs with hydrated electrons: Structural dependence and implications to remediation & management. Emerging Contaminants in the Environment Conference 2019, Champaign IL (Oral presentation).
28. Yu Y., **Men Y.** (05.2019). Biotransformation of sulfonamide antibiotics by different ammonia oxidizers. Emerging Contaminants in the Environment Conference 2019, Champaign IL (Oral presentation).
27. **Men Y.** (05.2019). Exposure of environmental level pesticides stimulates and diversifies evolution toward antibiotic resistance. AEESP Education & Research Conference 2019 – Cities in 4-D. Arizona State University, Phoenix, AZ (Oral presentation).
26. Yu Y., **Men Y.** (04.2019). Specific micropollutant biotransformation pattern by the comammox bacterium *Nitrospira inopinata*. 257th ACS National Meeting, Orlando FL. (Oral presentation)
25. **Men Y.** (08.2018). Deciphering ecological roles of supportive microorganisms in TCE bioremediation. Session 11: Pollutant Control and Bioremediation, SIMB Annual Meeting, Chicago, IL (Invited Talk)
24. Yu Y., **Men Y.** (03.2018). “Ammonia-monooxygenase-mediated cometabolic biotransformation and abiotic transformation of micropollutants”. 255th ACS National Meeting, New Orleans, LA (Oral presentation).
23. Xing Y., **Men Y.** (03.2018). “Occurrence and fate of emerging organic contaminants in wastewater treatment processes with an enhanced nitrification step”. 255th ACS National Meeting, New Orleans, LA (Oral presentation).
22. **Men Y.** (04. 2017). “Roles of nitrifiers in the removal of micropollutants during wastewater treatment processes”. ISTC sustainability seminar, Champaign, IL (Invited talk).
21. **Men Y.** (04.2017). “Roles played by ammonia oxidizers of a nitrifying activated sludge community in micropollutant biotransformation”. 253rd ACS National Meeting in San Francisco, California. (Oral presentation).
20. **Men Y.** (08.2016). “Roles played by ammonia oxidizers of a nitrifying activated sludge community in micropollutant biotransformation as evidenced by inhibition experiments”. ISME16, Montreal, Canada. (Oral presentation).
19. **Men Y.** (07.2016). “Links between Micropollutant Biotransformation and Ammonia Oxidizers”. Colorado School of Mines, Golden, Colorado. (Invited talk).
18. **Men Y.** (11.2015). “Unraveling roles of microbes in communities – towards a resilient and effective strategy”. Tsinghua University, Beijing, China. (Invited talk)
17. **Men Y.** (11.2015). “Links between Micropollutant Biotransformation and Ammonia Oxidizers”. 2015 Micropollutant and Ecohazard Conference, Singapore. (Oral presentation)
16. **Men Y.** (11.2015). “Micropollutant biotransformation by ammonia-oxidizing archaea”. City University of Hong Kong. (Invited talk)
15. **Men Y.** (06.2015). “The identification of the Ecological Roles of Supportive Microorganisms using Microbial Molecular Tools”. Civil and Environmental Engineering, Temple University, Philadelphia, U.S.A (Invited Talk).
14. **Men Y.** (06. 2015). “Deciphering Ecological Roles of Supportive Microorganisms in TCE-dechlorinating

- Microbial Communities”. Civil, Architectural and Environmental Engineering, Drexel University, Philadelphia, U.S.A. (Invited Talk).
13. **Men Y.** (06.2015). “Links between ammonia oxidizers and micropollutant biotransformation”. 2015 AEESP Conference, Yale University, New Haven, U.S.A. (Poster presentation).
 12. **Men Y.** (08.2014). “Linkages between biodiversity, nitrifiers, and micropollutant biotransformation in activated sludge microbial communities”. ISME15, Seoul, South Korea. (Oral presentation).
 11. **Men Y.** (03.2014). “Deciphering corrinoid salvaging in *Dehalococcoides mccartyi*-containing microbial communities”. DehaloCon- A Conference on Anaerobic Biological Dehalogenation, Friedrich Schiller University, Jena, Germany. (Oral presentation).
 10. **Men Y.** (06.2013). “The identification of novel biomarkers from TCE-dechlorinating microbial communities—Who is supporting *Dehalococcoides* and how?”. Department of Environmental Chemistry, Swiss Federal Institute of Aquatic Science and Technology (EAWAG), Switzerland. (Invited talk).
 9. **Men Y,** Seth EC, Yi S, Allen RH, Taga ME, Alvarez-Cohen L. (2013). Sustainable growth of *Dehalococcoides mccartyi* 195 by corrinoid salvaging and remodeling in a defined lactate-fermenting consortium. *113th general meeting of American Society for Microbiology*. Denver, CO, U.S.A. (Poster).
 8. **Men Y,** Tremblay J, Prestat E, Bælum J, Stenuit B, Tringe SG, Jansson JR, Alvarez-Cohen. (2013). Metagenomic and metatranscriptomic analyses of TCE-dechlorinating microbial communities enriched under different exogenous cobalamin conditions. 2013 JGI user meeting. Walnut Creek, CA, U.S.A. (Poster).
 7. **Men Y,** Seth EC, Yi S, Crofts TS, Allen RH, Taga ME, Alvarez-Cohen L. (2012). The production and interspecies transfer of corrinoids in dechlorinating microbial communities containing *Dehalococcoides*. The 25th annual meeting of the superfund research program. Raleigh, NC, U.S.A. (Poster)
 6. **Men Y.** (2012). “Who is supporting *Dehalococcoides*? — An ecological view on TCE-dechlorinating microbial communities under different cobalamin stress”. Microbial ecology seminar series, Lawrence Berkeley National Laboratory and University of California, Berkeley, CA, U.S.A. (Invited talk).
 5. **Men Y,** Seth EC, Yi S, Crofts TS, Allen RH, Taga ME, Alvarez-Cohen L. (2011). Characterization the effects of cobalamin and methanogenesis on TCE-dechlorinating enrichments. *111th general meeting of American Society for Microbiology*. New Orleans, LA, U.S.A. (Poster).
 4. **Men Y,** Harding KC, Yi S, Alvarez-Cohen L. (2010). Identification of corrinoid-providing supportive microorganisms for *Dehalococcoides* in TCE dechlorinating enrichment cultures by analytical and molecular tools. *110th general meeting of American Society of Microbiology*. San Diego, CA, U.S.A. (Poster).
 3. **Men Y,** Harding KC, Feil H, Alvarez-Cohen L. (2009). Application of molecular and analytic tools to track enrichment of reductive dechlorination cultures from a TCE contaminated groundwater site. *109th General Meeting of American Society of Microbiology*. Philadelphia, PA, U.S.A. (Poster, student travel grant award winner).
 2. Hong Y, **Men YJ,** Hu HY. (2005). The application of plant resource for the control of water bloom in small scale water bodies. *The Conference on Environmental Technology and Development for Beijing Green Olympics*, Beijing, China. (Abstract).
 1. Li FM, Guo MT, Hu HY, **Men YJ,** Hong Y. (2005). Effects of adding ways of allelochemicals from *Phragmites communis* Trin on the inhibition of *Chlorella pyrenoidosa*. *2nd National Allelopathy*

Conference, Hangzhou, China. (Abstract).

RESEARCH PROJECTS

- USDA-NIFA-AFRI: Mitigating Antimicrobial Resistance in Irrigated Agriculture Using Multi-Layered Biochar-Based Polishing Technologies For Treated Wastewater (co-PI, PI: A. Bhattacharjee, selected for funding, 2023-2027)
- SERDP: Estimation of Biotransformation Rate of Key PFAS Precursors and PFAS Sequestration into Microbial Biomass during Precursor Biotransformation using Activity Based Labeling (ABL) (co-PI, PI: Jacob Chu, Haley&Aldrich, Inc., ER23-C1-3796, 2023-2025)
- SERDP: Assessing Polyfluoroalkyl Substances Transformation in Groundwater at AFFF Impacted Sites Using In Situ Microcosm (co-PI, PI: John Xiong, Haley&Aldrich, Inc., ER23-C1-3694, 2023-2025)
- SERDP: ER23-C1-3620: *Abiotic and Biotic Transformation of PFAS Precursors at Oxic–Anoxic Transition Zones in AFFF-Impacted Soil and Groundwater.* (co-PI, PI: D. Wang, ER23-C1-3694, 2023-2027)
- NSF: ERASE-PFAS: *Tunable Vacuum-Ultraviolet Irradiation Systems with Highly Polarized Redox Environment for Treatment of Per- and Polyfluoroalkyl Substances.* (co-PI, PI: H. Liu, Award Number: 2131745, 2022-2024)
- NSF-CAREER: *A Systematic Understanding of Accelerated Emergence and Transmission of Antibiotic Resistance under Non-antibiotic Micropollutant Exposure.* (PI, Award Number: 2045658, 2021-2026)
- NIEHS: *Synergistic Material-Microbe Interface towards Faster, Deeper, and Air-tolerant Reductive Dehalogenation.* (Lead PI, PI: C. Liu, Award Number: 1R01ES032668-01, 2021-2025)
- USDA-NIFA: *Dissemination and risk of anthropogenically induced antimicrobial resistance in the agricultural environment.* (co-PI, PI: Ashworth, Award Number: 2021-68015-33505, 2020-2024)
- SERDP: *Identification, characterization, and application of reductive defluorinating microorganisms.* (PI, Project No.: ER20-1541, 2020-2024)
- NSF: *Faradaic electrochemically-mediated processes for micropollutant remediation.* (co-PI, PI: Xiao Su, co-PI: Roland Cusick, Award No. NSF 1931941, 2019-2022)
- NSF_ECS SusChEM: *Collaborative Research: Cobalt-catalyzed Defluorination of Branched Perfluorinated Compounds.* (PI, Award No. NSF CHE 1709286, 2017-2020)
- 2016-2019, roles of nitrifying microorganisms on biotransformation of emerging contaminants in wastewater treatment plants (Startup funding).
- 2014-2016, investigation on the linkage between biotransformation of micropollutants and transcript abundance of functional genes in nitrifying activated sludge microbial communities (Swiss National Science Foundation).
- 2013, Development of sustainable and energy efficient municipal wastewater treatment technology: Direct anaerobic digestion combined with anammox treatment (funded by the NSF-Engineering Research Center (ERC) for Re-inventing the Nation's Urban Water Infrastructure (ReNUWIt).
- 2011-2012, Toxic Substances in the Environment, Project 4: Meta-omics of microbial communities involved in bioremediation (Funded by National Institute of Environmental and Health Sciences, U.S.).
- 2007-2011, Identify novel biomarkers to assess, monitor, and optimize the biodegradative potential of microbial communities during bioremediation of chlorinated solvents contaminated soil or

groundwater. (Funded by Strategic Environmental Research and Development Program (SERDP), U.S.) (Ph.D. Dissertation).

- 2007, Sustainable water concept and its application for the Olympic Games 2008 (Supported by Joint Chinese - German Project). In charge of the management of landscape water qualities for the Olympic Games 2008.
- 2004-2007, Investigation of inhibitory effect of allelochemicals from water plants on water bloom algae in eutrophicated freshwater bodies. (Funded by National Natural Science Foundation by China - Japan Science and Technology Agency (NSFC-JST) joint project) (Bachelor and Master's Thesis).

PROFESSIONAL ACTIVITIES

- Editor for Water Research X (2022-present)
- Editor for Journal of Environmental Chemical Engineering (2022-present)
- Co-organizer of symposium “Innovative & Practical Approaches for Treatment of Per- and Polyfluoroalkyl Substances” at ACS National Meeting Spring 2022 (March 20 – March 24, San Diego, CA)
- Panelist at the Emerging Contaminants in the Environment Conference (ECEC) 2019 (May 21-22, 2019), Champaign, IL.
- Organizer of symposium “When Chemistry Meets Biology: Novel Solutions for Emerging Challenges in Pollutant Control, Remediation & Resource Recovery” at 257th ACS National Meeting (March 31 – April 4, Orlando FL)
- Organizer of Emerging Contaminants in the Aquatic Environment Conference Jun 5-6, 2018, Champaign, IL
- Organizer of symposiums i) “Emerging Environmental Biotechnologies for Energy-Efficient Pollutant Control, Remediation & Resource Recovery”; ii) “Ongoing Challenges in the Treatment of Contaminants of Emerging Concern” at 255th ACS National Meeting (March 18-22, 2018, New Orleans).
- Review Editor for Frontiers in Bioengineering and Biotechnology, Frontiers in Environmental Science and Frontiers in Microbiology.
- Peer-reviewer for journals: Environmental Science & Technology, Applied and Environmental Microbiology, Applied Microbiology and Biotechnology, Water Research, Frontiers in Microbiology, Environmental Science: Processes & Impacts, ACS Sustainable Chemistry & Engineering, FEMS Microbial Ecology, Frontiers in Environmental Science & Engineering, Chemical Engineering Science, PLOS One, Journal of Hazardous Materials, Chemosphere, Science of the Total Environment, Bioresource Technology, and Journal of Petroleum and Environmental Biotechnology.
- Memberships:
 - 2013-present Member of Association of Environmental Engineering and Science Professors (AEESP)
 - 2018-present Member of Chinese-American Professors in Environmental Engineering and Science (CAPEES)
 - 2013-present Member of International Society of Microbial Ecology (ISME)
 - 2013-present Member of American Chemical Society (ACS)

2009-present Member of American Society for Microbiology (ASM)

TEACHING

- 04.2020-06.2020, Aquatic Chemistry (ENVE140/CEE241), Department of Chemical and Environmental Engineering, University of California, Riverside.
- 04.2020-present, Biological Unit Processes in Environmental Engineering (ENVE121/CEE226), Department of Chemical and Environmental Engineering, University of California, Riverside.
- 07.2019-present, Unit Operations and Processes in Environmental Engineering (ENVE120/CEE225), Department of Chemical and Environmental Engineering, University of California, Riverside.
- 08.2018-12.2018, Environmental Engineering Principles, Biological (CEE444), Department of Civil and Environmental Engineering, University of Illinois at Urbana-Champaign. (Ranked as Excellent in Fall 2018)
- 08.2016-05.2019, Water Quality Engineering (CEE437), Department of Civil and Environmental Engineering, University of Illinois at Urbana-Champaign. (Ranked as Excellent in Fall 2017, Spring 2019)
- 09.2014-12.2014, Tutor of a master student in a term paper writing class (701-1303-00L), Department of Environmental and Systems Science, ETH, Zürich.
- 05.2013-06.2013, Summer Institution: Preparing for the Future Faculty, University of California, Berkeley.
- 01.2012-05.2012, Teaching assistant (course: “Environmental Microbiology”), Department of Civil and Environmental Engineering, University of California, Berkeley.
- 08.2006, Teaching assistant (summer course: “Environmental Quality Monitoring of Campus”), School of Environment, Tsinghua University, China.

AWARDS & HONORS

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| 05.2021 | NSF-CAREER Award |
| 07. 2020 | Omnibus Traveling Grant, UCR (\$900) |
| 07. 2020 | Regents Faculty Fellowship, UCR (\$4,000) |
| 02. 2017 | UIUC IIP International Research Travel Grant (\$3,000) |
| 05. 2009 | ASM 2009 Student Travel Grant Award, Philadelphia. |
| 08. 2007 | Wei Fellowship (\$21,000), University of California, Berkeley. |
| 10. 2006 | 1st Class Scholarship of Tsinghua University for graduates funded by Guanghua educational foundation. |
| 06. 2006 | 3rd prize in the 1 st Environmental-friendly Science and Technology Competition. |
| 07. 2005 | Excellent graduate student in Beijing |
| 07. 2005 | Excellent Bachelor Thesis of Tsinghua University |
| 11. 2004 | Scholarship of Tsinghua University funded by POSCO, Tsinghua University |
| 09. 2004 | Danaher-Hach Environmental Scholarship |
| 05. 2004 | Excellent Student on Science & Technology of Department of Environmental |

Science & Engineering, Tsinghua University

11. 2003 **Scholarship of Tsinghua University** funded by POSCO, Tsinghua University

11. 2002 **Scholarship of Tsinghua University** funded by Shun-de WU Couple, Tsinghua University

INDUSTRY EXPERIENCE

- *07-08. 2004* Internship in Danaher-Hach company for the project of “A Survey of Operation and Monitoring Situation of Wastewater Treatment Plant in China”.