

Chen Wang

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Earth & Environmental Sciences Area, Lawrence Berkeley National Laboratory,
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EDUCATION

Ph.D. Environmental Science Rutgers University, Newark, NJ, USA	2021
M.S. Environmental Engineering University of Chinese Academy of Science, Beijing, China Dual M.S. degree from University of Copenhagen, Copenhagen, Denmark	2015
B.S. Environmental Science (with honors) Sun Yat-sen University, Guangzhou, China	2012

FELLOWSHIP & AWARDS

Research Grants

The Geological Society of America Graduate Student Research Grants 2019

Best student paper award

5th International Workshop on Induced Polarization 2018

Fellowship

Dissertation Fellowship, Rutgers 2019-2020

Society of Exploration Geophysicists (SEG) Scholarship 2019-2021

Professional Development Fund, Rutgers 2018

Academic Research Fellowship, Chinese Academy of Sciences 2012

National Fellowship, China 2009 & 2010

Student Travel Grants

Graduate School Travel Grant, Rutgers 2018

Selected participant in SEG/ExxonMobil Student Education Program 2019

Near Surface Geophysics Workshop, CUAHSI 2018

Environmental System Science PI Meeting, U.S. Department of Energy 2018

Graduate Student Government Association Travel Award, Rutgers 2018-2019

Graduate School Summer Travel Grant, Rutgers 2017-2019

PUBLICATIONS

PhD research (* indicates corresponding author)

1. **Wang, C.***, Briggs, M.A., Day-Lewis, F.D. and Slater, L.D. (2021), Riverbed magnetic susceptibility characterization of iron precipitates associated with anoxic groundwater discharges: opportunities and limitations. *Hydrological Processes*. 35(5), e14184.

2. **Wang, C.***, Briggs, M.A., Day-Lewis, F.D. and Slater, L.D. (2021), Characterizing physical properties of streambed interface sediments using in situ complex electrical conductivity measurements. *Water Resources Research*. 57, e2020WR027995.
3. **Wang, C.***, Binley, A. and Slater, L.D. (2021), On negative induced polarization effects in frequency domain measurements. *Geophysical Journal International*. 225(1), pp.342-353.
4. Briggs, M.A., **Wang, C.**, Day-Lewis, F.D., Williams, K.H., Dong, W. and Lane, J.W. (2019), Return flows from beaver ponds enhance floodplain-to-river metals exchange in alluvial mountain catchments. *Science of the Total Environment*. 685, pp.357-369.
5. **Wang, C.*** and Slater, L.D. (2019), Extending accurate spectral induced polarization measurements into the kHz range: modeling and removal of errors from interactions between the parasitic capacitive coupling and the sample holder. *Geophysical Journal International*. 218(2), pp.895-912
6. Li, M., Qiang, Z., **Wang, C.**, Bolton, J.R. and Blatchley III, E.R. (2017), Experimental assessment of photon fluence rate distributions in a medium-pressure UV photoreactor. *Environmental Science & Technology*, 51(6), pp.3453-3460.
7. Li, M., **Wang, C.**, Yau, M., Bolton, J.R. and Qiang, Z. (2017), Sulfamethazine degradation in water by the VUV/UV process: kinetics, mechanism and antibacterial activity determination based on a mini-fluidic VUV/UV photoreaction system. *Water research*, 108, pp.348-355.
8. Li, M., Qiang, Z., Hou, P., Bolton, J.R., Qu, J., Li, P. and **Wang, C.** (2016), VUV/UV/chlorine as an enhanced advanced oxidation process for organic pollutant removal from water: assessment with a novel mini-fluidic VUV/UV photoreaction system. *Environmental science & technology*, 50(11), pp.5849-5856.
9. Li, M., Qiang, Z., Bolton, J.R., Li, W. and **Wang, C.** (2016), 2014. Improved method for real-time fluence monitoring in UV reactors. *Journal of Environmental Engineering*, 141(4), pp.04014075.
10. Li, M., Qiang, Z., **Wang, C.**, Bolton, J.R. and Lian, J. (2013), Development of monitored tunable biosimetry for fluence validation in an ultraviolet disinfection reactor. *Separation and Purification Technology*, 117, pp.12-17.
11. Qiang, Z., Li, M., Bolton, J.R., Qu, J. and **Wang, C.** (2013), Estimating the fluence delivery in UV disinfection reactors using a ‘detector-model’ combination method. *Chemical engineering journal*, 233, pp.39-46.
12. **Wang, C.**, Li, M., Yan, R., Zhao, X. and Qiang, Z., 2016. Removal of sulfonamide antibiotics from drinking water with a UV/VUV reactor. *China Water and Wastewater*, 32(09), pp.53-57. (in Chinese)
13. Li, M., **Wang, C.**, Chen, P., Wu, W., Qiang, Z., 2013. Dose validation and online monitoring of UV disinfection reactor for drinking water treatment. *China Water and Wastewater*, 29 (7): 48-51. (in Chinese)
14. Qiang, Z., **Wang, C.**, Li, M. Mini-fluidic vacuum-UV experimental apparatus for efficient removal of organic pollutants. China Patent. Application number: 201510230385. 5.

TEACHING & MENTORSHIP

Teaching assistant at Rutgers-Newark

Hydrogeology	2018
Applied Geophysics	2018
Environmental Geology Lab	2016

Mentor

NSF Research Experiences for Undergraduates Program	Summer 2017
Undergraduate senior project at Rutgers University	Spring & Summer 2018
Undergraduate junior project at Rutgers University	Summer & Fall 2019

SELECTED CONFERENCE PRESENTATIONS

1. Wang, C., Briggs, M.A., Day-Lewis, F.D., Caro Cano, C., Osei, C. and Slater, L.D. (2019), Characterization of iron oxides in the streambed using magnetic susceptibility (poster), AGU Fall Meeting, San Francisco, CA.
2. Wang, C., Briggs, M.A., Day-Lewis, F.D. and Slater, L.D. (2018), Locating Fe rich anoxic groundwater discharge using spectral induced polarization (oral), AGU Fall Meeting, Washington, DC.
3. Wang, C., Ntarlagiannis, D. and Slater, L.D. (2018), Extending accurate four-electrode spectral induced polarization measurements into the kHz range by quantifying the phase errors resulting from leakage currents (poster), 5th international workshop on induced polarization, Newark, NJ. (**Best student paper award**)
4. Wang, C., Slater, L.D., Briggs, M.A. and Day-Lewis, F.D. (2018), Characterization of Fe oxide deposition in stream sediments using spectral induced polarization and magnetic susceptibility (poster). DOE Environmental System Science PI meeting, Potomac, MD. (**Student travel grant**)
5. Wang, C., Slater, L.D., Briggs, M.A. and Day-Lewis, F.D. (2017), Laboratory Investigation of Complex Conductivity and Magnetic Susceptibility on Natural Iron Oxide Coated Sand (poster). AGU Fall Meeting, New Orleans, LA.
6. Wang, C., Ntarlagiannis, D., Slater, L.D. and Seleznev, N.V. (2016), Experimental investigations of phase error caused by electrode impedance in laboratory spectral induced polarization measurements (poster). AGU Fall Meeting, San Francisco, CA.

PROFESSIONAL SKILLS

Programming: Python (primary), MATLAB

Modelling: Geophysical Inversion, COMSOL

Chemical analysis: Ions, Organic Materials, Liquid chromatography–mass spectrometry

Geophysical techniques:

Electrical Resistivity Tomography, Induced Polarization, Ground Penetrating Radar, Seismic Refraction, Magnetic Susceptibility, Magnetic Field, Electromagnetic Induction

SERVICE & OUTREACH

Journal reviewer

Water Resources Research, Journal of Hydrology, Geophysical Journal International, The Cryosphere, Hydrogeology Journal, Geophysics, Near Surface Geophysics, Journal of Environmental & Engineering Geophysics

Service activity

2019-2021 AGU Hydrogeophysics Committee student representative

2020 AGU Fall Meeting Outstanding Student Presentation Awards volunteer judge

2020 AGU Fall Meeting convener (Advances in subsurface characterization and monitoring using ground-based and remote geophysical, hydrogeological methods)

2020 AGU Fall Meeting convener (Advances in petrophysics for geophysical characterization and monitoring of a dynamic subsurface)

2019 AGU Fall Meeting primary convener (Advances in subsurface characterization and monitoring using geophysical and hydrogeological methods)

2018-2019 Student representative in the graduate advisory committee of Department of Earth and Environmental Science, Rutgers University.

2017-2019 Secretary-treasurer in the SEG student chapter of Rutgers Newark Geophysical Society