

# KYLE J. MOOR

Utah Water Research Laboratory  
Civil and Environmental Engineering  
Utah State University  
8200 Old Main Hill, Logan Utah, 84321

Phone: 435-797-0937  
Email: kyle.moor@usu.edu

## EDUCATION

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<b>Ph.D.</b>	<b>Yale University</b> Department of Chemical & Environmental Engineering	2016
<b>M. Phil.</b>	<b>Yale University</b> Department of Chemical & Environmental Engineering	2014
<b>B.S.</b>	<b>Virginia Polytechnic Institute and State University</b> Department of Chemistry	2010

## ACADEMIC APPOINTMENTS

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<b>Assistant Professor</b>	Utah State University, Department of Civil and Environmental Engineering Utah Water Research Laboratory	2020-present
<b>Postdoctoral Research Fellow</b>	ETH Zürich, Department of Environmental Systems Science	2016-2020

## HONORS & AWARDS

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<b>ETH Zürich Postdoctoral Fellowship</b> , ETH Zürich	2017
<b>President's Fellowship</b> , Georgia Institute of Technology	2011

## PUBLICATIONS

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### CORRESPONDING AUTHOR JOURNAL ARTICLES

1. Partanen, S. B.; Erickson, P. R.; Latch D. E.; **Moor, K. J.**; McNeill, K. Dissolved organic matter singlet oxygen quantum yields: Evaluation using time-resolved singlet oxygen phosphorescence. *Environmental Science & Technology*. 2020, *54*, 3316-3324.

### JOURNAL ARTICLES

1. Ossola, R.; Jönsson, O. M.; **Moor, K. J.**; McNeill, K. Singlet Oxygen Quantum Yields in Environmental Waters. *Chemical Reviews*. 2021, *121*, 4100-4146.
2. Lee, H.; Lee J. S.; **Moor K. J.**; Kim, H. -I.; Kim, S. -R.; Gim, G.; Lee, J.; Kim, H. -H.; Fahmy, T. M.; Kim, J. -H.; Lee, C. Hand-ground fullerene-nanodiamond composite for photosensitized water treatment and photodynamic cancer therapy. *Journal of Colloid and Interface Science*. 2021, *587*, 101-109.

3. **Moor, K. J.**; Schmitt, M.; Erickson, P. R.; McNeill, K. Sorbic acid as a triplet probe: Triplet energy and reactivity with dissolved organic matter via  $^1\text{O}_2$  phosphorescence. *Environmental Science & Technology*. 2019, *53*, 8078-8086.
4. Schmitt, M.; **Moor, K. J.**; Erickson, P. R.; McNeill, K. Sorbic acid as a triplet probe: Reactivity with oxidizing triplets in dissolved organic matter by direct observation of aromatic amine oxidation. *Environmental Science & Technology*. 2019, *53*, 8087-8096.
5. Stirchak, L. T.; **Moor, K. J.**; McNeill, K.; Donaldson, D. J. Differences in photochemistry between seawater and freshwater for three natural organic matter samples. *Environmental Science: Processes & Impacts*. 2019, *21*, 28-39.
6. Erickson, P. R.; **Moor, K. J.**;\* Werner, J. J.; Latch, D. E.; Arnold, W. A.; McNeill, K. Singlet oxygen phosphorescence as a probe for triplet-state dissolved organic matter reactivity. *Environmental Science & Technology*. 2018, *52*, 9170-9178.  
\*Shared first authorship
7. **Moor, K. J.**; Osuji, C. O.; Kim, J. -H. Dual-functionality fullerene and silver nanoparticle antimicrobial composites via block copolymers templates. *ACS Applied Materials & Interfaces*. 2016, *8*, 33583-33591.
8. **Moor, K. J.**; Cates, E. L.; Kim, J. -H. Porous silicon's photoactivity in water: Insights into environmental fate. *Environmental Science & Technology*. 2016, *50*, 756-764.
9. **Moor, K. J.**; Snow, S. D.; Kim, J. -H. Differential photoactivity of aqueous  $[\text{C}_{60}]$  and  $[\text{C}_{70}]$  fullerene aggregates. *Environmental Science & Technology*. 2015, *49*, 5990-5998.
10. **Moor, K. J.**; Valle, D. C.; Li, C.; Kim, J. -H. Improving the visible light photoactivity of fullerene photocatalysts through the use of  $[\text{C}_{70}]$  fullerene. *Environmental Science & Technology*. 2015, *49*, 6190-6197.
11. Snow, S. D.; Kim, K. C.; **Moor, K. J.**; Jang, S. S.; Kim, J. -H. Functionalized fullerenes in water: A closer look. *Environmental Science & Technology*. 2015, *49*, 2147-2155.
12. Ge, L.; **Moor, K. J.**; Zhang, B.; He, Y.; Kim, J. -H. Electron transfer mediation by aqueous  $\text{C}_{60}$  aggregates in  $\text{H}_2\text{O}_2/\text{UV}$  advanced oxidation of indigo carmine. *Nanoscale*. 2014, *6*, 13579-13585.
13. **Moor, K. J.**; Kim, J. -H. Simple synthetic method toward solid supported  $\text{C}_{60}$  visible light activated photocatalysts. *Environmental Science & Technology*. 2014, *48*, 2785-2791.
14. **Moor, K. J.**; Kim, J. -H.; Snow, S. D.; Kim, J. -H.  $[\text{C}_{70}]$  Fullerene-sensitized triplet-triplet annihilation upconversion. *Chemical Communications*. 2013, *49*, 10829-10831.

#### BOOK CHAPTERS

1. **Moor, K. J.**; Snow, S. D.; Kim, J. -H. Light sensitized disinfection with fullerene. In *Applying Nanotechnology for Environmental Sustainability*, IGI Global, 137-163, 2016.

#### SELECTED PRESENTATIONS AT SCIENTIFIC MEETINGS

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1. **Moor, K. J.**; Erickson, P. R.; McNeill, K. "Time-resolved singlet oxygen phosphorescence to measure triplet photochemistry in aquatic environments." Oral Presentation. *American Chemical Society National Meeting*. San Diego, CA. August, 2019.
2. **Moor, K. J.**; Erickson, P. R.; Werner, J. J.; Latch, D. E.; Arnold, W. A.; McNeill, K. " $^1\text{O}_2$  Phosphorescence as a Probe for  $^3\text{DOM}^*$ : Assessing Triplet Reactivity with Common Molecular Probes." Poster Presentation. *Gordon Research Conference, Environmental Sciences: Water*. Holderness, NH. June, 2018.

3. **Moor, K. J.**; Erickson, P. R.; Werner, J. J.; Latch, D. E.; Arnold, W. A.; McNeill, K. “<sup>1</sup>O<sub>2</sub> Phosphorescence as a Probe for <sup>3</sup>DOM\*: Assessing Triplet Reactivity with Common Molecular Probes.” Oral Presentation. *Gordon Research Seminar, Environmental Sciences: Water*. Holderness, NH. June, 2018.
4. **Moor, K. J.**; Erickson, P. R.; McNeill, K. “<sup>1</sup>O<sub>2</sub> Phosphorescence as a Probe for <sup>3</sup>DOM\*: Assessing Triplet Reactivity with Sorbic Acid.” Oral Presentation. *American Chemical Society National Meeting*. New Orleans, LA. March, 2018.
5. **Moor, K. J.**; Osuji, C. O.; Kim, J. -H. “Fullerene-Based Multifunctional Antimicrobial Composites via Block Copolymer Templates.” Oral Presentation. *American Chemical Society National Meeting*. Boston, MA. August, 2015.
6. **Moor, K. J.**; Osuji, C. O.; Kim, J. -H. “Fullerene-Based Multifunctional Antimicrobial Composites via Block Copolymer Templates.” Poster Presentation. *Association of Environmental Engineering & Scientist Professors*. New Haven, CT. June, 2015.
7. **Moor, K. J.**; Snow, S. D.; Kim, J. -H. “Photo-Inactivation with Fullerenes.” Oral Presentation. *International Conference on Antimicrobial Research*. Madrid, Spain. October, 2014.
8. **Moor, K. J.**; Snow, S. D.; Kim, J. -H. “Differential Photoactivity of Aqueous C<sub>60</sub> and C<sub>70</sub> Fullerene Aggregates.” Oral Presentation. *American Chemical Society National Meeting*. San Francisco, CA. August, 2014.
9. **Moor, K. J.**; Kim, J. -H. “Simple Preparation of Supported Fullerene Materials: Visible Light Activated Photocatalysts.” Oral Presentation. *American Chemical Society National Meeting*. Dallas, TX. March, 2014.
10. **Moor, K. J.**; Kim, J. -H. “Photodynamic Inactivation Using Solid-Supported Fullerene.” Poster Presentation. *Gordon Research Conference, Environmental Nanotechnology*. Stowe, VT. June, 2013.

## TEACHING

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### CEE 3670 – Transport Phenomena in Bio-Environmental Systems

Biological and environmental engineering undergraduate students learn principles, concepts, modes, and methods of calculating heat and mass transfer. Emphasis is on contaminant and nutrient flux, their state transformations, and evaluating options for production, clean-up, and control of bio-environmental systems.

### CEE 6630 – Process Dynamics in Environmental Engineering Systems

Graduate students learn fundamental principles used in analysis and simulation of environmental systems. Emphasis is on small particle dynamics, reaction kinetics, mass transfer, reactor analysis and design, transport phenomena, and development and solution of mathematical models to describe environmental systems.

## PROFESSIONAL SERVICE

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### Professional Membership

American Chemical Society; Association of Environmental Engineering & Science Professors

### Reviewer for Scholarly Journals

Environmental Science & Technology; Environmental Science & Technology Letters; Environmental Science: Processes & Impacts; Environmental Science: Nano; Environment International