

Sungho V. Park
Department of Chemistry, Cal State San Bernardino
5500 University Pkwy, San Bernardino, CA 92407
E-mail: sungho.park@csusb.edu | ORCID: [0000-0002-5949-0548](https://orcid.org/0000-0002-5949-0548)

PROFESSIONAL APPOINTMENTS

- | | |
|--|-------------------|
| Assistant Professor, Cal State San Bernardino | 08/2026 – |
| Postdoctoral Research Scientist, Columbia University | 09/2021 – 08/2026 |
| <i>Advisor: Jonathan S. Owen</i> | |
| <ul style="list-style-type: none">• Surface chemistry of toluene-dispersible UiO-66 nanocrystals | |

EDUCATION AND TRAINING

- | | |
|--|-------------------|
| Ph.D., Inorganic Chemistry, University of Wisconsin-Madison | 08/2015 – 08/2021 |
| <i>Advisor: John F. Berry</i> | |
| <ul style="list-style-type: none">• Thesis title: Tailoring the Electronic Structure of Ruthenium Compounds for Pnictogen Reactivity | |
| A.B., Chemistry, Washington University in St. Louis | 06/2010 – 05/2013 |
| <i>Advisor: Liviu M. Mirica</i> | |
| <ul style="list-style-type: none">• Synthesis of Pd(III) complexes with electronic tuning of the pyridinophane ligand | |

AWARDS AND HONORS

Student Research Grants Competition (SRGC) Travel Award, UW-Madison, 2019
Graduate Student-Faculty Liaison Committee Travel Award, UW-Madison, 2018
Honorable Mention - Student Awards, International Precious Metals Institute, 2018
Best Oral Presentation - Summer Symposium, KCS Division of Inorganic Chemistry, 2013
Samuel Weissman Award for Excellence in Physical Chemistry, Washington University, 2013
First Place - Undergraduate Research Symposium, St. Louis Section of the ACS, 2013
Conference Travel Award, Washington University, 2013

PATENT

U.S. Patent 11,465,136: "Metal-Metal Bonded Ammonia Oxidation Catalysts." Berry, J. F.; Wallen, C. M.; Brown, T. R.; **Park, S. V.**, issued October 11, 2022.

PUBLICATIONS

1. **Park, S. V.**; Bhai, L.; Lee, G. A.; Park, A-H. A.; Marbella, L. E.; Owen, J. S. "Steric Stabilization of Colloidal UiO-66 Nanocrystals with Oleylammonium Octadecylphosphonate." *Chem. Sci.* **2025**, *16*, 933–938. DOI: [10.1039/d4sc06528j](https://doi.org/10.1039/d4sc06528j)
2. Valleix, R.; Zhang, W.; Jordan, A. J.; Guillemeney, L.; Castro, L. G.; Zekarias, B. L.; **Park, S. V.**; Wang, O.; Owen, J. S. "Metal Fluorides Passivate II–VI and III–V Quantum Dots." *Nano Lett.* **2024**, *24*, 5722–5728. DOI: [10.1021/acs.nanolett.4c00610](https://doi.org/10.1021/acs.nanolett.4c00610)
3. **Park, S. V.**; Corcos, A. R.; Jambor, A. N.; Yang, T.; Berry, J. F. "Formation of the N≡N Triple Bond from Reductive Coupling of a Paramagnetic Diruthenium Nitrido Compound." *J. Am. Chem. Soc.* **2022**, *144*, 3259–3268. DOI: [10.1021/jacs.1c13396](https://doi.org/10.1021/jacs.1c13396)
4. Trenerry, M. J.; Wallen, C. M.; Brown, T. R.; **Park, S. V.**; Berry, J. F. "Spontaneous N₂ formation by a diruthenium complex enables electrocatalytic and aerobic oxidation of ammonia." *Nat. Chem.* **2021**, *13*, 1221–1227. DOI: [10.1038/s41557-021-00797-w](https://doi.org/10.1038/s41557-021-00797-w)

5. **Park, S. V.**; Fry, C. G.; Bill, E.; Berry, J. F. "A metastable Ru^{III} azido complex with metallo-Staudinger reactivity." *Chem. Commun.* **2020**, 56, 10738–10741. DOI: [10.1039/d0cc04426a](https://doi.org/10.1039/d0cc04426a)
6. Halder, P.; SantaLucia, D. J.; **Park, S. V.**; Berry, J. F. "From Pincer to Paddlewheel: C–H and C–S Bond Activation at Bis(2-pyridylthio)methane by Palladium(II)." *Inorg. Chem.* **2019**, 58, 2270–2274. DOI: [10.1021/acs.inorgchem.8b03568](https://doi.org/10.1021/acs.inorgchem.8b03568)
7. Tang, F.[‡]; **Park, S. V.**[‡]; Rath, N. P.; Mirica, L. M. "Electronic versus steric effects of pyridinophane ligands on Pd(II) complexes." *Dalton Trans.* **2018**, 47, 1151–1158. DOI: [10.1039/c7dt04366j](https://doi.org/10.1039/c7dt04366j) (‡ Denotes equal contribution.)
8. **Park, S. V.**; Berry, J. F. "Synthesis, characterization and solution behavior of a systematic series of pentapyridyl-supported Ru^{II} complexes: comparison to bimetallic analogs." *Dalton Trans.* **2017**, 46, 9118–9125. DOI: [10.1039/c7dt01847a](https://doi.org/10.1039/c7dt01847a)
9. Lee, E.; Bae, D. Y.; **Park, S.**; Oliver, A. G.; Kim, Y.; Yandulov, D. V. "A Palladium(II) Peroxido Complex Supported by the Smallest Steric N-Heterocyclic Carbene, *i*Me = 1,3-Dimethylimidazole-2-ylidene, and Its Reactivity by Oxygen-Atom Transfer." *Eur. J. Inorg. Chem.* **2016**, 4561–4564. DOI: [10.1002/ejic.201601019](https://doi.org/10.1002/ejic.201601019)
10. Yang, Q.; Lin, T.-S.; Burton, C.; **Park, S.**; Ma, Y. "Physicochemical insights of irradiation-enhanced hydroxyl radical generation from ZnO nanoparticles." *Toxicol. Res.* **2016**, 5, 482–491. DOI: [10.1039/c5tx00384a](https://doi.org/10.1039/c5tx00384a)
11. Park, J.; Song, H.; Kim, Y.; Eun, B.; Kim, Y.; Bae, D. Y.; **Park, S.**; Rhee, Y. M.; Kim, W. J.; Kim, K.; Lee, E. "N-Heterocyclic Carbene Nitric Oxide Radicals." *J. Am. Chem. Soc.* **2015**, 137, 4642–4645. DOI: [10.1021/jacs.5b01976](https://doi.org/10.1021/jacs.5b01976)
12. Lin, T.-S.; Rajagopalan, R.; Shen, Y.; **Park, S.**; Poreddy, A. R.; Asmelash, B.; Karwa, A. S.; Taylor, J.-S. A. "Roles of Free Radicals in Type 1 Phototherapeutic Agents: Aromatic Amines, Sulfenamides, and Sulfenates." *J. Phys. Chem. A* **2013**, 117, 5454–5462. DOI: [10.1021/jp402745m](https://doi.org/10.1021/jp402745m)

PRESENTATIONS

1. "Coordination Chemistry Relevant to Environmental Challenges." Chemistry Department Seminar, Columbia University, New York, NY (February 10, 2025).
2. "Toluene Dispersible Oleate and Octadecylphosphonate Ligated UiO-66 Nanocrystals." Inorganic Chemistry Gordon Research Conference 2024, Newport, RI (poster presentation).
3. "Tailoring the Electronic Structure of Ruthenium Compounds for Pnictogen Reactivity." Friday Synthesis Symposium, Columbia University, New York, NY (October 29, 2021).
4. "Coupling of Diruthenium Nitrides Releases Nitrogen Gas." ACS Spring 2021, online (April 14, 2021).
5. "Structure, Spectroscopy, and Reactivity Studies of a Transient Ru(III) Azide." 256th ACS National Meeting, Boston, MA (August 22, 2018).
6. "MeN⁴OMe Supported Pd Complexes: Steric and Electronic Effects." KCS Division of Inorganic Chemistry Summer Symposium, Busan, Republic of Korea (August 26, 2013).
7. "Electronic Effects in Mononuclear Pd(III) Complexes." 245th ACS National Meeting, New Orleans, LA (April 7, 2013).

PEER REVIEW EXPERIENCE

Conducted peer review for *ACS Applied Nano Materials*, *Chemistry of Materials*, *Dalton Transactions*, *Inorganic Chemistry Frontiers*, *Inorganic Chemistry*, *Journal of Physical Chemistry*, *Journal of the American Chemical Society*, *Nature Catalysis*, and *RSC Advances*.