

SUNGHO V. PARK

Department of Chemistry, Columbia University
3000 Broadway, New York, NY 10027
sunghopark2013@gmail.com

EDUCATION AND TRAINING

- Postdoctoral Research Scientist, Columbia University 9/2021 –
Advisor: Jonathan S. Owen
- Ph.D., Inorganic Chemistry, University of Wisconsin–Madison 8/2015 – 8/2021
Advisor: John F. Berry
- Photochemical reactivity of Ru and Ru₂ azido complexes
 - Thesis title: Tailoring metal-based SOMOs for pnictogen reactivity
- A.B., Chemistry, Washington University in St. Louis 6/2010 – 5/2013
Advisor: Liviu M. Mirica
- Synthesis of Pd(III) complexes with electronic tuning of the pyridinophane ligand

PROFESSIONAL EXPERIENCE

- Teaching Assistant, University of Wisconsin–Madison 8/2015 – 5/2020
- Introductory Organic Chemistry Laboratory, General Chemistry I (2 semesters each)
 - Introductory Organic Chemistry, Chemistry in Our World, General Chemistry II (1 semester each)
- X-ray Crystallography Assistant, University of Wisconsin–Madison 6/2017 – 1/2018
Advisor: Ilia A. Guzei
- Screened, mounted and solved crystals submitted to the X-ray lab
 - Maintained the local structural database (Reciprocal Net)
- Republic of Korea Army 10/2013 – 7/2015
- Researcher, Institute for Basic Science, Republic of Korea 6/2013 – 10/2013
Advisor: Eunsung Lee
- Synthesis of heteroleptic Pd(II) complexes stabilized with N-heterocyclic carbene ligands

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 U., 2013
First Place – Undergraduate Research Symposium, St. Louis Section of the ACS, 2013
Conference Travel Award, Washington U., 2013

SUBMITTED MANUSCRIPTS

Trenerry, M. J.; Wallen, C. M.; Brown, T. R.; **Park, S. V.**; Berry, J. F. "Spontaneous Ammonia Oxidation and Homogeneous Electrocatalysis in the Fuel Cell Viability Zone." *Nat. Chem.*, in revision.

PUBLICATIONS

1. **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)
2. 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)
3. Tang, F.†; **Park, S. V.**†; Rath, N. P.; Mirica, L. M. "Electronic versus steric effects of pyridinophane ligands on Pd(III) complexes." *Dalton Trans.* **2018**, 47, 1151-1158. DOI: [10.1039/C7DT04366J](https://doi.org/10.1039/C7DT04366J) († Denotes equal contribution.)
4. **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)
5. 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, *IMe* = 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)
6. 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)

PRESENTATIONS

1. **Park, S. V.**; Corcos, A. R.; Jambor, A. N.; Yang, T.; Berry, J. F. "Coupling of diruthenium nitrides releases nitrogen gas." Oral presentation. *ACS Spring 2021*, online, April 2021.
2. **Park, S. V.**; Berry, J. F. "Structure, spectroscopy, and reactivity studies of a transient Ru(III) azide." Oral presentation. *256th ACS National Meeting*, Boston, MA, August 2018.
3. **Park, S.**; Khusnutdinova, J. R.; Tang, F.; Mirica, L. M. "MeN4^{OMe} supported Pd complexes: steric & electronic effects." Oral presentation. *KCS Division of Inorganic Chemistry Summer Symposium*, Busan, Republic of Korea, August 2013.
4. **Park, S.**; Tang, F.; Rath, N. P.; Mirica, L. M. "Electronic effects in mononuclear Pd(III) complexes." Oral presentation. *245th ACS National Meeting*, New Orleans, LA, April 2013.

PROVISIONAL PATENT APPLICATION

US Provisional Patent Application No. 62/924,761: "Metal-Metal Bonded Ammonia Oxidation Catalysts." Berry, J. F.; Wallen, C. M.; Trenerry, M. J.; Brown, T. R.; **Park, S. V.**, filed October 23, 2019.