

Curriculum Vitae
Dr. Vaiva Krungleviciute

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Education

Ph.D. in Applied Physics	Southern Illinois University at Carbondale (August 2009)	Carbondale, IL, USA
M.Sc. in Physics	Southern Illinois University at Carbondale (August 2003)	Carbondale, IL, USA
B.Sc. in Physics	Vytautas Magnus University (June 2000)	Kaunas, Lithuania

Professional Experience**Lab Manager****Harvard University SEAS / Wyss Institute**

(June 2014 – present); PI: Prof. Dr. Joanna Aizenberg

- Managed the Aizenberg Biomineralization and Biomimetics Laboratory at Harvard John A. Paulson School of Engineering and Applied Sciences/Wyss Institute for Biologically Inspired Engineering (~50-65 people in the group: postdoctoral researchers, graduate, undergraduate and Co-op students, visiting scholars);
- Managed hiring of Research and Postdoctoral Fellows, Co-ops (created job descriptions, contacted universities to advertise positions, reviewed resumes, created candidate shortlists, organized interviews);
- Wrote annual grant reports;
- Handled confidential information (reference letters, appointment contracts, grant budgets);
- Designed and developed a Wiki website for the Aizenberg group using Atlassian Confluence software;
- Reorganized lab spaces to make sure that lab supplies are available and easily accessible for uninterrupted workflow;
- Managed lab supply inventory (checked supply levels; purchased and allocated them as needed);
- Reviewed and purchased service contracts for water filtration systems, scanning electron and confocal microscopes;
- Scheduled required calibrations and certifications for equipment and instruments in the lab;
- Informed group members on Harvard University and Wyss Institute purchasing policies, trained them in using Oracle iProcurement application to purchase items for their research;
- Wrote and implemented safety policy for undergraduate students working in the lab;

- Wrote, implemented and enforced personal protective equipment requirement policy for people working in the lab;
- Secured entrances to the lab – ensured installation of ID scanners to control access to lab;
- Contacted Harvard SEAS safety and budget offices to make sure that a phone would be installed in the lab space in the basement where cell reception is not adequate;
- Liaised with Harvard Environmental Health & Safety (EH&S) to ensure all compliance / safety requirements were being followed;
- Created searchable chemical inventory system;
- Organized group meetings, ordered catering, reserved rooms;
- Updated group publications, awards and presentations, and web information.

Postdoctoral researcher University of Pennsylvania/NIST Center for Neutron Research

(April 2012 – June 2014); Advisor: Dr. Taner Yildirim

- Synthesized metal-organic frameworks and porous carbons;
- Used several different instruments to characterize materials: (Neutron instruments at NIST Center for Neutron Research; b) high-pressure volumetric adsorption setups; c) thermogravimetric analyzer; d) X-ray diffractometer; e) X-ray photoelectron spectrometer.

Postdoctoral researcher Southern Illinois University, Carbondale, IL

(2009 - 2012); Advisor: Dr. Aldo D. Migone

- Developed, built and tested a new instrument for measuring the kinetics of gas mixture adsorption using a combined adsorption setup and residual gas analyzer;
- Using in-house built volumetric adsorption setups performed adsorption experiments on different types of nanoporous materials;

Research assistant Southern Illinois University, Carbondale, IL

(2001 - 2009)

Lab Managing Activities

- Managed and maintained budgets for grants;
- Purchased equipment and supplies for the laboratory (through purchase orders and university issued credit cards);
- Obtained extensive experience in grant writing to the National Science Foundation, Petroleum Research Fund, Illinois Clean Coal Institute, and the Department of Energy;
- Supervised compliance with health and safety rules (IEPA and OSHA) for all the members in the laboratory and was in charge of maintaining appropriate records;
- Maintained and repaired laboratory equipment;
- Advised and mentored undergraduate student workers and junior graduate students working in the laboratory.
- Instructed junior graduate and undergraduate students in the laboratory how to write abstracts for conferences. Prepared them for oral conference presentations.

Service Activities

- At the request of the Department Chair, rewrote the guidelines for international graduate student applicants for the Department of Physics;
- In 2006, was involved in a program directed towards encouraging young women to pursue careers in the sciences, “Expanding Your Horizons in Science & Mathematics” (a conference for 7th, 8th, & 9th grade girls);

- Judged undergraduate research posters at the American Physical Society March meetings;
- Demonstrated different physics experiments and explained the principles behind them to visiting groups of grade school and middle school students from the Southern Illinois area;
- Represented the Department of Physics in an Open House event for the recruitment of new undergraduates for SIUC;
- Reviewed articles for *Physica B – Condensed matter*, *Chemical Communications*, *Journal of American Chemical Society*.

Research Activities

- Used Micromeritics and in-house built low and high pressure volumetric adsorption isotherm apparatus to measure gas adsorption on porous materials;
- Used and maintained diffusion, turbomolecular, and mechanical vacuum pumps and pumping stations;
- Designed and used cryogenic equipment, closed-cycle helium refrigerators, high vacuum pressure gauges (thermocouple, ionization, capacitance), temperature control equipment, helium leak testing for vacuum systems, SEM, TEM.

Senior lab assistant

Lithuanian Energy Institute, Kaunas, Lithuania

(1997 - 2001)

- Assisted in safety analysis for the Ignalina Nuclear Power Plant Performed calculations using different programs including RELAP5.

Publications

1. Chung, Y. G.; Camp, J.; Haranczyk, M.; Sikora, B. J.; Bury, W.; Krungleviciute, V.; Yildirim, T.; Farha, O. K.; Sholl, D. S.; Snurr, R. Q. "Computation-Ready, Experimental Metal-Organic Frameworks: A Tool To Enable High-Throughput Screening of Nanoporous Crystals", *Chem. Mater.* 26 (21), 6185-6192 (2014). DOI: 10.1021/cm502594j [**Hot Paper** - This hot paper was published in the past two years and received enough citations in May/June 2015 to place it in the top 0.1% of papers in its academic field.]
2. Gomez-Gualdrón, D. A.; Gutov, O. V.; Krungleviciute, V.; Borah, B.; Mondloch, J. E.; Hupp, J. T.; Yildirim, T.; Farha, O. K.; Snurr, R. Q. "Computational Design of Metal-Organic Frameworks Based on Stable Zirconium Building Units for Storage and Delivery of Methane", *Chem. Mater.* 26 (19), 5632-5639 (2014). DOI: 10.1021/cm502304e
3. Gutov, O. V.; Bury, W.; Gomez-Gualdrón, D. A.; Krungleviciute, V.; Fairen-Jimenez, D.; Mondloch, J. E.; Sarjeant, A. A.; Al-Juaid, S. S.; Snurr, R. Q.; Hupp, J. T.; Yildirim, T.; Farha, O. K. "Water-Stable Zirconium-Based Metal-Organic Framework Material with High-Surface Area and Gas-Storage Capacities", *Chem. Eur. J.* 20 (39), 12389-12393 (2014). DOI: 10.1002/chem.201402895
4. Barin, G.; Krungleviciute, V.; Gutov, O.; Hupp, J. T.; Yildirim, T.; Farha, O. K. "Defect Creation by Linker Fragmentation in Metal-Organic Frameworks and Its Effects on Gas Uptake Properties", *Inorg. Chem.* 53 (13), 6914-6919 (2014). DOI: 10.1021/ic500722n
5. Barin, G.; Krungleviciute, V.; Gomez-Gualdrón, D. A.; Sarjeant, A. A.; Snurr, R. Q.; Hupp, J. T.; Yildirim, T.; Farha, O. K. "Isorecticular Series of (3,24)-Connected Metal-Organic Frameworks: Facile Synthesis and High Methane Uptake Properties", *Chem. Mater.* 26 (5), 1912-1917 (2014). DOI: 10.1021/cm404155s
6. Srinivas, G.; Krungleviciute, V.; Guo, Z. X.; Yildirim, T. "Exceptional CO₂ capture in a hierarchically porous carbon with simultaneous high surface area and pore volume", *Energ. Environ. Sci.* 7 (1),

- 335-342 (2014). DOI: 10.1039/c3ee42918k [**Highly Cited Paper** - As of May/June 2015, this highly cited paper received enough citations to place it in the top 1% of its academic field based on a highly cited threshold for the field and publication year.]
7. Kennedy, R. D.; Krungleviciute, V.; Clingerman, D. J.; Mondloch, J. E.; Peng, Y.; Wilmer, C. E.; Sarjeant, A. A.; Snurr, R. Q.; Hupp, J. T.; Yildirim, T.; Farha, O. K.; Mirkin, C. A. "Carborane-Based Metal-Organic Framework with High Methane and Hydrogen Storage Capacities", Chem. Mater. 25 (17), 3539-3543 (2013). DOI: 10.1021/cm4020942
 8. Peng, Y.; Krungleviciute, V.; Eryazici, I.; Hupp, J. T.; Farha, O. K.; Yildirim, T. "Methane Storage in Metal-Organic Frameworks: Current Records, Surprise Findings, and Challenges", J. Am. Chem. Soc. 135 (32), 11887-11894 (2013). DOI: 10.1021/ja4045289
 9. Krungleviciute, V.; Ziegler, C. A.; Banjara, S. R.; Yudasaka, M.; Iijima, S.; Migone, A. D. "Neon and CO₂ Adsorption on Open Carbon Nanohorns", Langmuir 29 (30), 9388-9397 (2013). DOI: 10.1021/la401033u
 10. Wu, H.; Chua, Y. S.; Krungleviciute, V.; Tyagi, M.; Chen, P.; Yildirim, T.; Zhou, W. "Unusual and Highly Tunable Missing-Linker Defects in Zirconium Metal-Organic Framework UiO-66 and Their Important Effects on Gas Adsorption", J. Am. Chem. Soc. 135 (28), 10525-10532 (2013). DOI: 10.1021/ja404514r [**Highly Cited Paper** - As of May/June 2015, this highly cited paper received enough citations to place it in the top 1% of its academic field based on a highly cited threshold for the field and publication year.]
 11. Wilmer, C. E.; Farha, O. K.; Yildirim, T.; Eryazici, I.; Krungleviciute, V.; Sarjeant, A. A.; Snurr, R. Q.; Hupp, J. T. "Gram-scale, high-yield synthesis of a robust metal-organic framework for storing methane and other gases", Energ. Environ. Sci. 6 (4), 1158-1163 (2013). DOI: 10.1039/c3ee24506c [**Highly Cited Paper** - As of May/June 2015, this highly cited paper received enough citations to place it in the top 1% of its academic field based on a highly cited threshold for the field and publication year.]
 12. Rafti, M.; Krungleviciute, V.; Migone, A. D. "Low-pressure experiments on Ar-CH₄ gaseous mixtures adsorption over exfoliated graphite: Evidence of kinetic selectivity shift", Chem. Phys. Lett. 554, 67-71 (2012). DOI: 10.1016/j.cplett.2012.10.017
 13. Krungleviciute, V.; Pramanik, S.; Migone, A. D.; Li, J. "Methane on Zn(bdc)(ted)(0.5) metal-organic framework: Evidence for adsorption on distinct sites", Micropor. Mesopor. Mat. 161, 134-138 (2012). DOI: 10.1016/j.micromeso.2012.05.032
 14. Krungleviciute, V.; Migone, A. D.; Yudasaka, M.; Iijima, S. "CO₂ Adsorption on Dahlia-Like Carbon Nanohorns: Isothermic Heat and Surface Area Measurements", J. Phys. Chem. C 116 (1), 306-310 (2012). DOI: 10.1021/jp208766u
 15. Krungleviciute, V.; Migone, A. D.; Pepka, M. "Characterization of single-walled carbon nanohorns using neon adsorption isotherms", Carbon 47 (3), 769-774 (2009). DOI: 10.1016/j.carbon.2008.11.036
 16. Rawat, D. S.; Krungleviciute, V.; Heroux, L.; Bulut, M.; Calbi, M. M.; Migone, A. D. "Dependence of Single-Walled Carbon Nanotube Adsorption Kinetics on Temperature and Binding Energy", Langmuir 24 (23), 13465-13469 (2008). DOI: 10.1021/la8022002
 17. Krungleviciute, V.; Calbi, M. M.; Wagner, J. A.; Migone, A. D.; Yudasaka, M.; Iijima, S. "Probing the structure of carbon nanohorn aggregates by adsorbing gases of different sizes", J. Phys. Chem. C 112 (15), 5742-5746 (2008). DOI: 10.1021/jp710524q

18. Krungleviciute, V.; Lask, K.; Migone, A. D.; Lee, J. Y.; Li, J. "Kinetics and equilibrium of gas adsorption on RPM1-Co and Cu-BTC metal-organic frameworks: Potential for gas separation applications", *AICHE J.* 54 (4), 918-923 (2008). DOI: 10.1002/aic.11422
 19. Krungleviciute, V.; Lask, K.; Heroux, L.; Migone, A. D.; Lee, J. Y.; Li, J.; Skoulidas, A. "Argon adsorption on Cu-3(Benzene-1,3,5-tricarboxylate)(2)(H₂O)(3) metal-organic framework", *Langmuir* 23 (6), 3106-3109 (2007). DOI: 10.1021/la061871a
 20. Heroux, L.; Krungleviciute, V.; Calbi, M. M.; Migone, A. D. "CF₄ on carbon nanotubes: Physisorption on grooves and external surfaces", *J. Phys. Chem. B* 110 (25), 12597-12602 (2006). DOI: 10.1021/jp060956h
 21. Rawat, D. S.; Heroux, L.; Krungleviciute, V.; Migone, A. D. "Title: Adsorption of xenon on purified HiPco single walled carbon nanotubes", *Langmuir* 22 (1), 234-238 (2006). DOI: 10.1021/la052127d
 22. Krungleviciute, V.; Heroux, L.; Migone, A. D.; Kingston, C. T.; Simard, B. "Isosteric heat of argon adsorbed on single-walled carbon nanotubes prepared by laser ablation", *J. Phys. Chem. B* 109 (19), 9317-9320 (2005). DOI: 10.1021/jp044266u
 23. Krungleviciute, V.; Heroux, L.; Talapatra, S.; Migone, A. D. "Gas adsorption on HiPco nanotubes: Surface area determinations, and neon second layer data", *Nano Lett.* 4 (6), 1133-1137 (2004). DOI: 10.1021/nl049738v
 24. Talapatra, S.; Krungleviciute, V.; Migone, A. D. "Higher coverage gas adsorption on the surface of carbon nanotubes: Evidence for a possible new phase in the second layer", *Phys. Rev. Lett.* 89 (24), 246106 (2002). DOI: 10.1103/PhysRevLett.89.246106
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Presentations

1. Zhangwen Wei, Dawei Feng, Vaiva Krungleviciute, Jinhee Park, Jesus Ferrando, Hong-Cai Zhou, Taner Yildirim "Tuning structures of metal-organic frameworks for gas adsorption application" 247th ACS National Meeting & Exposition, March 16-20, Dallas, TX (2014).
2. Taner Yildirim, Yang Peng, Vaiva Krungleviciute, Ibrahim Eryazici, Joseph T. Hupp, Omar K. Farha, "Methane storage in metal-organic frameworks and nanoporous carbons: Current records, surprise findings, and challenges", 246th ACS National Meeting and Exposition, September 8-12, Indianapolis, IN (2013).
3. Matias Rafti, Vaiva Krungleviciute, Aldo Migone, "Experimental study of Ar-CH₄ gas mixture adsorption over exfoliated graphite: kinetic reversal of adsorption selectivity", American Physical Society Meeting, March 18-22, Baltimore, MD (2013).
4. Shree Banjara, Vaiva Krungleviciute, Aldo Migone, "Study of Carbon Dioxide adsorption on Purified HiPco Nanotubes", American Physical Society Meeting, March 18-22, Baltimore, MD (2013).
5. Carl Ziegler, Vaiva Krungleviciute, Aldo Migone, Masako Yudasaka, Sumio Iijima, "Study of Carbon Dioxide adsorption on Purified HiPco Nanotubes", American Physical Society Meeting, March 18-22, Baltimore, MD (2013).
6. Herbert Vinson, Baleeswaraiah Muchharla, X. Zhang, Amelia Church, Vaiva Krungleviciute, S. Kar, Aldo Migone, Saikat Talapatra, "Synthesis and Characterization of Carbon Nanotubes Produced From Thermal Decomposition of Nickelocene", American Physical Society Meeting, February 27 - March 2, Boston, MA (2012).

7. Vaiva Krungleviciute, Aldo Migone, Masako Yudasaka, Sumio Iijima, "Neon adsorption on oxidized single-walled carbon nanohorns", American Physical Society Meeting, February 27 – March 2, Boston, MA (2012).
8. Dinesh Rawat, Saikat Talapatra, Vaiva Krungleviciute, Aldo Migone, "Dependence of adsorption kinetics on the geometry of substrate", American Physical Society Meeting, February 27 – March 2, Boston, MA (2012).
9. Shree Banjara, Vaiva Krungleviciute, Aldo Migone, Masako Yudasaka, Sumio Iijima, "Carbon dioxide adsorption on open single walled carbon nanohorn aggregates", American Physical Society Meeting, February 27 – March 2, Boston, MA (2012).
10. Shree Banjara, Vaiva Krungleviciute, Aldo D Migone, Masako Yudasaka, Sumio Iijima "Adsorption of CO₂ on open single walled carbon nanohorn aggregates" Adsorption at the Nanoscale: A New Frontier in Fundamental Science and Applications, September 22-24, University of Missouri, Columbia, MO (2011).
11. Vaiva Krungleviciute, Sanhita Pramanik, Aldo Migone, Jing Li "Adsorption of methane on Zn(bdc)(ted)0.5 microporous metal-organic framework" American Physical Society Meeting, 21-25 March, Dallas, TX (2011).
12. Aldo Migone, Vaiva Krungleviciute, Shree Banjara, Masako Yudasaka, Sumio Iijima "Carbon dioxide adsorption on H₂SO₄ treated single-walled carbon nanohorns" American Physical Society Meeting, 21-25 March, Dallas, TX (2011).
13. Vaiva Krungleviciute, Aldo Migone, Masako Yudasaka, Sumio Iijima "Oxidized dahlia-like carbon nanohorns: adsorption of argon, methane and nitrogen" American Physical Society Meeting, 15-19 March, Portland, OR (2010).
14. Jaime Bohorquez, Vaiva Krungleviciute, Aldo Migone, Masako Yudasaka, Sumio Iijima "CO₂ adsorption on single-walled dahlia-like carbon nanohorns" American Physical Society Meeting, 15-19 March, Portland, OR (2010).
15. Vaiva Krungleviciute, Aldo Migone, Kunhao Li, Jing Li "Argon adsorption on Co-FA porous metal-organic framework" American Physical Society Meeting, 15-19 March, Portland, OR (2010).
16. Murat Bulut, Vaiva Krungleviciute, Masako Yudasaka, Sumio Iijima, Aldo Migone "Adsorption of neon and tetrafluoromethane on carbon nanohorn aggregates: differences in specific surface area values" American Physical Society Meeting, 9-14 March, New Orleans, LA (2008).
17. Kathleen Lask, Vaiva Krungleviciute, Murat Bulut, Aldo Migone, J.-Y. Lee, Jing Li "Kinetic and steric differences in adsorption in two porous metal-organic frameworks" American Physical Society Meeting, 9-14 March, New Orleans, LA (2008).
18. Vaiva Krungleviciute "Gas Adsorption on two Metal-Organic-Framework (MOF) substrates: equilibrium and kinetic results", Laboratorio de Ciencias de Superficies y Medios Porosos de la Universidad Nacional de San Luis, San Luis, Argentina, 31 July (2007).
19. Vaiva Krungleviciute "Gases on carbon nanohorns" - Laboratorio de Ciencias de Superficies y Medios Porosos de la Universidad Nacional de San Luis, San Luis, Argentina, 2 August (2007).
20. V. Krungleviciute, D. Rawat, M. Bulut, L. Heroux, A. D. Migone "Dependence of single-walled carbon nanotubes' adsorption kinetics on temperature and binding energy" American Physical Society Meeting, 5-9 March, Denver, CO (2007).
21. K. Lask, V. Krungleviciute, A. D. Migone, J.-Y. Lee, Jing Li "Gas separation using novel materials: kinetics of gas adsorption on RPM-1 and Cu-BTC metal-organic frameworks" American Physical Society Meeting, 5-9 March, Denver, CO (2007).

22. V. Krungleviciute, A. D. Migone, Ben Buller, Alexandra Ciungu, U. D. Venkateswaran, M. Yudasaka, S. Iijima, M. J. Pepka “Neon adsorption isotherm studies on single walled carbon nanohorns” American Institute of Chemical Engineers Annual Meeting, November 12-17, San Francisco, CA (2006).
23. V. Krungleviciute, K. Lask, L. Heroux, A. D. Migone, J.-Y. Lee, J. Li, A. Skoulidas “Argon adsorption on $\text{Cu}_3(\text{BTC})_2(\text{H}_2\text{O})_3$ metal-organic frameworks” American Institute of Chemical Engineers Annual Meeting, November 12-17, San Francisco, CA (2006).
24. V. Krungleviciute, K. Lask, A. D. Migone, B. Buller, T. Beattie, U. Venkateswaran “Neon adsorption on single walled carbon nanohorns” American Physical Society Meeting, 13-17 March, Baltimore, MD (2006).
25. K. Lask, V. Krungleviciute, L. Heroux, A. D. Migone, J.-Y. Lee, J. Li “Argon adsorption on a microporous metal organic framework, $\text{Cu}_3(\text{BTC})_2(\text{H}_2\text{O})_3$ (Benzene-1,3,5-tricarboxylate)” American Physical Society Meeting, 13-17 March, Baltimore, MD (2006).
26. Luke Heroux, Vaiva Krungleviciute, and Aldo Migone “Tetrafluoromethane Adsorbed on Hipco Nanotubes” American Institute of Chemical Engineers Annual Meeting, October 30 – November 4, Cincinnati, OH (2005).
27. Vaiva Krungleviciute, Luke Heroux, Aldo Migone “Neon adsorption isotherms on carbon nanohorns” American Physical Society Meeting, 21-25 March, Los Angeles, CA (2005).
28. Dinesh Rawat, Luke Heroux, Vaiva Krungleviciute, Aldo Migone “Adsorption of Xenon on Hipco Single Walled Carbon Nanotubes” American Physical Society Meeting, 21-25 March, Los Angeles, CA (2005).
29. Luke Heroux, Vaiva Krungleviciute, Dinesh Rawat, A.D. Migone “Adsorption of Tetrafluoromethane on HiPco Purified SWNTs” American Physical Society Meeting, 21-25 March, Los Angeles, CA (2005).
30. Vaiva Krungleviciute, Aldo Migone, Stephane Denomme, Benoit Simard “Argon adsorption on Close-ended Single-Wall Carbon Nanotube Bundles” American Institute of Chemical Engineers Annual Meeting, November 16-21, San Francisco, CA (2003).
31. Vaiva Krungleviciute, Saikat Talapatra, Aldo D. Migone “Adsorption isotherm study on neon on the outer surface of SWNT bundles” American Physical Society Meeting, 3-7 March, Austin, TX (2003).
32. S. Talapatra, V. Krungleviciute and A.D. Migone “Xenon adsorption on the outer surface of SWNT Bundles” Nanotube-02, 06-11 July, Boston, MA (2002).
33. V. Krungleviciute, A. Kaliatka “Employing of RELAP5 code for LBB deterministic analysis in the Ignalina NPP “ Proceed. of the 9th Intern. Conf. on Nuclear Engineering ICONE-9, 8-12 April 2001. - Nice Acropolis, France, 2001. - P. 1-11.
34. V. Krungleviciute, A. Kaliatka “The calculation of coolant leak rate through the cracks using RELAP5 code” Science and Industry of Lithuania: Thermal Power Engineering and Technologies, Proceed. of the KTU Conf., 2001 February 1, 2. – Kaunas: Technology, 2001. P. 85-88.

Languages

English (Fluent), Lithuanian (mother tongue), Russian (good), Spanish (Basic)

Professional Affiliations

American Physical Society, American Institute of Chemical Engineers, American Chemical Society, Neutron Scattering Society of America, Materials Research Society