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Education and Training:

Johns Hopkins University, Baltimore, MD	Ph.D.	2010	Materials Science
Tsinghua University, Beijing, China	M.S.	2005	Physics
Tsinghua University, Beijing, China	B.S.	2002	Electronic Engineering

Professional Experience:

2014-present	Neutron Scattering Scientist, Oak Ridge National Laboratory
2011-2014	Clifford G. Shull Fellow, Oak Ridge National Laboratory
2010-2011	Postdoc, Johns Hopkins University

Professional Honors, Awards:
Outstanding Staff Service Award, Oak Ridge National Laboratory, 2021
Clifford G. Shull Fellowship, Oak Ridge National Laboratory, 2011
Wolman Fellow of Whiting School of Engineering, Johns Hopkins University, 2006

Scientific Activities
Organizer:
Workshop: Tutorial on modern modeling methods in neutron spectroscopy, April 2019
Workshop: Atomistic modeling on neutron scattering, June 2017

Lecturer:
National School on Neutron and X-Ray Scattering, since 2018

PI:
LDRD: Atomistic modeling and machine learning for neutrons, FY21-23
LDRD: Hyperspectral COmpressive neutrOn Lensless (HyperCOOL) Imaging with VISION, FY18-19

Co-PI:
LDRD: Containerized, heterogenous software environment for Neutron Scattering Data Analysis, Interpretation and Automation, FY20-22
LDRD: ICE-MAN, the Integrated Computational Environment-Modeling & Analysis for Neutrons, FY17-19
LDRD: Virtual Experiments in Neutron Spectroscopy, FY16-17
LDRD: An Integrated Approach to the Design and Discovery of Fast Ionic Conducting Materials, FY15-17

Publications [1-188]

Google Scholar: https://scholar.google.com/citations?user=pV_StB0AAAAJ&hl=en
As of 7/27/2022, total publications: 188; total citations: 14826; h-index: 54

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2. Novak, E.; Daemen, L.; Ramirez-Cuesta, A. J.; Cheng, Y.; Smith, R.; Egami, T.; Jalarvo, N., Uncovering the hydride ion diffusion pathway in barium hydride via neutron spectroscopy. *Scientific Reports* **2022,** *12* (1).
3. Cladek, B. R.; Ramirez-Cuesta, A. J.; Everett, S. M.; McDonnell, M. T.; Daemen, L.; Cheng, Y.; Brant Carvalho, P. H. B.; Tulk, C.; Tucker, M. G.; Keffer, D. J.; Rawn, C. J., In situ inelastic neutron scattering of mixed CH4–CO2 hydrates. *Fuel* **2022,** *327*.
4. Chen, J.; Mei, Q.; Chen, Y.; Marsh, C.; An, B.; Han, X.; Silverwood, I. P.; Li, M.; Cheng, Y.; He, M.; Chen, X.; Li, W.; Kippax-Jones, M.; Crawshaw, D.; Frogley, M. D.; Day, S. J.; García-Sakai, V.; Manuel, P.; Ramirez-Cuesta, A. J.; Yang, S.; Schröder, M., Highly Efficient Proton Conduction in the Metal-Organic Framework Material MFM-300(Cr)·SO4(H3O)2. *Journal of the American Chemical Society* **2022,** *144* (27), 11969-11974.
5. Drake, H. F.; Xiao, Z.; Day, G. S.; Vali, S. W.; Daemen, L. L.; Cheng, Y.; Cai, P.; Kuszynski, J. E.; Lin, H.; Zhou, H. C.; Ryder, M. R., Influence of Metal Identity on Light-Induced Switchable Adsorption in Azobenzene-Based Metal-Organic Frameworks. *ACS Applied Materials and Interfaces* **2022,** *14* (9), 11192-11199.
6. Mu, S.; Dixit, K. D.; Wang, X.; Abernathy, D. L.; Cao, H.; Nagler, S. E.; Yan, J.; Lampen-Kelley, P.; Mandrus, D.; Polanco, C. A.; Liang, L.; Halász, G. B.; Cheng, Y.; Banerjee, A.; Berlijn, T., Role of the third dimension in searching for Majorana fermions in α-RuCl3 via phonons. *Physical Review Research* **2022,** *4* (1).
7. Klein, R. A.; Balderas-Xicohténcatl, R.; Maehlen, J. P.; Udovic, T. J.; Brown, C. M.; Delaplane, R.; Cheng, Y.; Denys, R. V.; Ramirez-Cuesta, A. J.; Yartys, V. A., Neutron vibrational spectroscopic evidence for short H-H contacts in the RNiInH1.4; 1.6 (R = Ce, La) metal hydride. *Journal of Alloys and Compounds* **2022,** *894*.
8. Kneller, D. W.; Gerlits, O.; Daemen, L. L.; Pavlova, A.; Gumbart, J. C.; Cheng, Y.; Kovalevsky, A., Joint neutron/molecular dynamics vibrational spectroscopy reveals softening of HIV-1 protease upon binding of a tight inhibitor. *Physical Chemistry Chemical Physics* **2022,** *24* (6), 3586-3597.
9. Albers, P. W.; Leich, V.; Ramirez-Cuesta, A. J.; Cheng, Y.; Hönig, J.; Parker, S. F., The characterisation of commercial 2D carbons: graphene, graphene oxide and reduced graphene oxide. *Materials Advances* **2022,** *3* (6), 2810-2826.
10. Ma, Y.; Lu, W.; Han, X.; Chen, Y.; Da Silva, I.; Lee, D.; Sheveleva, A. M.; Wang, Z.; Li, J.; Li, W.; Fan, M.; Xu, S.; Tuna, F.; McInnes, E. J. L.; Cheng, Y.; Rudić, S.; Manuel, P.; Frogley, M. D.; Ramirez-Cuesta, A. J.; Schröder, M.; Yang, S., Direct Observation of Ammonia Storage in UiO-66 Incorporating Cu(II) Binding Sites. *Journal of the American Chemical Society* **2022**.
11. Guo, L.; Han, X.; Ma, Y.; Li, J.; Lu, W.; Li, W.; Lee, D.; da Silva, I.; Cheng, Y.; Rudić, S.; Manuel, P.; Frogley, M. D.; Ramirez-Cuesta, A. J.; Schröder, M.; Yang, S., High capacity ammonia adsorption in a robust metal-organic framework mediated by reversible host-guest interactions. *Chemical Communications* **2022**.
12. Klein, R. A.; Balderas-Xicohténcatl, R.; Maehlen, J. P.; Udovic, T. J.; Brown, C. M.; Delaplane, R.; Cheng, Y.; Denys, R. V.; Ramirez-Cuesta, A. J.; Yartys, V. A., Neutron

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