

Erin E. Peters

Department of Chemistry
University of Kentucky
125 Chemistry-Physics Building
Lexington, KY 40506-0055
Phone: (859) 257-1871 (office)
Email: fe.peters@uky.edu
Web: <https://chem.as.uky.edu/users/eepete2>

Educational background:

- Ph.D., Chemistry, University of Kentucky, Lexington, KY, May 10, 2014
 - Dissertation: "Nuclear structure in transitional regions: Studies of $^{132,134}\text{Xe}$ and lifetimes in ^{94}Zr with the $(n,n'\gamma)$ reaction."
 - Advisor: Prof. Steven W. Yates
- B.S., Chemistry, University of the Cumberlands, Williamsburg, KY, May 13, 2006
 - Undergraduate thesis: "A study of cholesterol purification using pyridinium tribromide and tetra-n-butylammonium tribromide."
 - Advisor: Prof. Julie Tan

Experience:

- Lecturer, January 2022 – present
 - Department of Chemistry, University of Kentucky
 - Fall 2022 – Primary instructor for 3 sections of CHE226 Analytical Chemistry including both a lecture and laboratory with 30 total students, and 1 section of CHE105 General College Chemistry I with 250 students; Also served as the Recitation Coordinator for CHE105, CHE109, and CHE110 including 66 total course sections with an average of 30 students, and managing 11 teaching assistants
- Full-time Temporary Instructor, August 2019 – December 2021
 - Department of Chemistry, University of Kentucky
 - Fall 2021 – Primary instructor for 3 sections of CHE226 Analytical Chemistry including both a lecture and laboratory with 30 total students, and 1 section of CHE105 General College Chemistry I with 250 students; both taught fully in-person
 - Spring 2021 – Instructor for all recitation sections of CHE105 taught fully online, 450 total students
 - Fall 2020 – Primary instructor for 4 sections of CHE105 General College Chemistry I with 50 to 240 students per section taught fully online
 - Spring 2019 – Primary instructor for 3 sections of CHE107 General College Chemistry II with 180-270 students per section
 - Fall 2019 – Primary instructor for 3 sections of CHE105 General College Chemistry I with 50 to 270 students per section
 - Utilized Canvas, iClicker, Achieve (Sapling) with Interactive General Chemistry, Echo360, and ExamSoft
 - Regularly presented, and at times prepared, in-class demonstrations
 - For online courses in Fall 2020 and Spring 2021, utilized PlayPosit, Zoom (with and without

breakout rooms), Piazza, Respondus monitor and Lockdown browser in addition to Canvas and Sapling

- Teaching evaluations available upon request; also listed on “Rate My Professors”
- Consultant for Elemental Analysis Inc., July 2019
 - Paid consultant for accelerator repair
- Postdoctoral Scholar, May 2014 – July 2019
 - Department of Chemistry, University of Kentucky, Advisor: Prof. Steven W. Yates
 - Conducted inelastic neutron scattering experiments with gamma-ray and neutron detection at the University of Kentucky Accelerator Laboratory (UKAL) (www.pa.uky.edu/accelerator) to study nuclear structure and perform cross section measurements
 - Taught/assisted visitors to the laboratory in accelerator operation, experimental setups, data collection, and analysis
 - Served as the chemical hygiene officer, whose responsibilities include managing the chemical inventory and hazardous waste disposal
 - Assisted with radiation safety measures, such as on-site training and swipe testing
 - Served as web master for the UKAL site
 - Participated in experiments at other facilities:
 - Coulomb excitation measurements of ^{110}Cd with the EAGLE array at the Heavy Ion Laboratory of the University of Warsaw, Warsaw, Poland, June 2015
 - β^- decay of ^{32}Mg using the GRIFFIN spectrometer at TRIUMF, Vancouver, Canada, December 2015
 - Coulomb excitation of ^{110}Pd using the TIGRESS and SPICE spectrometers at TRIUMF, Vancouver, Canada, June 2016
 - β^- decay of $^{72,74}\text{Ge}$ using the GRIFFIN spectrometer at TRIUMF, Vancouver, Canada, October 2017
 - Polarized photon scattering from $^{58,60}\text{Ni}$ at the High-Intensity Gamma-Ray Source, Duke University, Durham, NC, July 2018
 - β^- decay of $^{80,82}\text{Ge}$ using the GRIFFIN spectrometer at TRIUMF, Vancouver, Canada, December 2018
 - Polarized photon scattering from ^{74}Ge at the High-Intensity Gamma-Ray Source, Duke University, Durham, NC, January 2019
- Part-time Instructor, January 2015 – May 2017, August 2018 – May 2019
 - Department of Chemistry, University of Kentucky
 - Primary instructor for CHE105 General College Chemistry I, spring/fall 2015, fall 2016, 2018
 - Primary instructor for CHE107 General College Chemistry II, spring 2016, 2017, 2019
 - Taught one section each semester with 55-270 students in a freshman-level course
 - Utilized Blackboard, Piazza, TurningPoint, and MasteringChemistry
 - Attended workshops and seminars presented by the Center for the Enhancement of Learning and Teaching
- Research Assistant, May – December 2007, May 2008 – May 2014
 - Department of Chemistry, University of Kentucky
 - Conducted inelastic neutron scattering experiments to study nuclear structure Experimental activities included gamma-ray detection, neutron detection, and operation of High Voltage

- Engineering CN 7 MV Van de Graaff accelerator
- Analyzed gamma-ray spectra to extract excitation functions, angular distributions, and Doppler-shift attenuation method lifetimes
- Characterized sample materials by powder X-ray diffraction and scanning electron microscopy
- Knowledgeable in Windows and Linux operating systems and Fortran, HTML, and C++ programming languages
- Participated in experiments at other facilities:
 - Polarized photon scattering measurements on ^{76}Ge , ^{76}Se , $^{162,164}\text{Dy}$, at the High-Intensity Gamma-Ray Source, Duke University, Durham, NC
 - ^{94}Y β^- decay using the 8π spectrometer at TRIUMF, Vancouver, Canada
 - $^{76}\text{Ge}(p,n\gamma)^{76}\text{As}$ at the Australian National University, Canberra, Australia
- Participant in the Exotic Beam Summer School, July 2011
 - National Superconducting Cyclotron Laboratory, Michigan State Univ., East Lansing, MI
- Teaching Assistant, August 2006 – May 2007, January 2007 – May 2008
 - Department of Chemistry, University of Kentucky
 - Laboratory instructor for the upper level undergraduate analytical chemistry course, with responsibility for preparation of all materials used by the students, maintenance of instrumentation, and grading for approximately 60 students per semester
 - Experiments included gravimetric analysis, electrogravimetric analysis, titrimetric analysis, molecular fluorescence spectroscopy, and UV-visible spectroscopy
- Teaching Assistant, William Randolph Hearst Foundation Assistantship, Aug. 2004 – May 2006
 - Department of Chemistry, University of the Cumberlands
 - Laboratory teaching assistant for general chemistry and analytical chemistry, with responsibility for preparation of all materials used by the students
 - Responsible for two sections of general chemistry in the fall semester, and one section of general chemistry and one section of analytical chemistry in the spring
 - 15-20 hours per week
- Tutor, August 2002 – May 2006
 - Academic Resource Center, University of the Cumberlands
 - Peer tutor in chemistry and mathematics
 - 12 hours per week 2002-2004, 2 hours per week 2004-2006
- Undergraduate Research Assistant, May – July 2005
 - Summer Undergraduate Research Program, Dept. of Chemistry, Clemson University, Clemson, SC
 - Advisor: Prof. R. Kenneth Marcus
 - Project title: “Hydrophobic interaction chromatography for protein separation using polypropylene capillary-channeled polymer (C-CP™) fibers as a stationary phase.”

Grants:

- “Probing Nuclear Structure and Shape Coexistence with Fast Neutrons,” National Science Foundation, Co-Investigator with S.W. Yates, \$683,486, PHY-2209178, 8/1/2022-7/31/2025.

Professional activities:

- Reviewer for Physical Review C, August 2022-present
- Reviewer for US National Science Foundation MRI proposal May 2019
- American Chemical Society, member since 2005
 - Member of the Division of Nuclear Chemistry and Technology (NUCL)
 - Member of the Website Committee of the Division
 - Treasurer of the Lexington Section of the ACS, 2020-2022
 - Chair Elect of the Lexington Section of the ACS, 2021-2022
- American Physical Society, member since 2007
 - Member of the Division of Nuclear Physics
- Association for Research at University Nuclear Accelerators (ARUNA), member since 2013
- Alpha Chi Sigma, professional chemistry fraternity, brother since 2015
 - Co-advisor of the Alpha Gamma Chapter, April 2017 – present
 - Leader of the Bluegrass Professional Group, June 2018 – 2020

Honors and awards:

- University of Kentucky, Department of Chemistry Outstanding Research Award, 2014
 - Awarded to one graduate student per academic year based on research accomplishments
- University of Kentucky, Department of Chemistry 100% Plus Award, 2009 and 2011
 - Awarded to one graduate student per academic year who is described as going above and beyond the activities of a typical graduate student, *e.g.*, community outreach, service to the department, *etc.*
- University of the Cumberlands, Department of Chemistry Outstanding Senior, 2006
- Who's Who Among American Colleges and Universities, 2005 and 2006
- Algernon Sydney Sullivan Foundation scholarship, 2005-2006
- University of the Cumberlands Presidential scholarship, 2002-2006
- A.T. Siler Memorial award, University of the Cumberlands, 2005
 - Granted to one female member of the junior class based on academic achievement and service to the university and community
- Gamma Sigma Epsilon, Chemistry honor society (Grand Alchemist Zeta Gamma Chapter, 2005)
- Sigma Pi Sigma, Physics honor society (Secretary Chapter #469, 2005)
- Kappa Mu Epsilon, Mathematics honor society

Departmental activities:

- Chemistry Alumni Board, member 2014-present
- Member of the Departmental Alumni Relations Committee 2022-2023
- Chemistry Graduate Student Association (ChemGSA) President 2010-2012, Vice President 2009-2010, Secretary 2007-2009; ChemGSA represents the graduate students, and acts as a bridge between students, faculty, and staff. The association addresses any questions and concerns which may arise and is involved in many departmental activities.
- Graduate Student Congress Chemistry Department Representative 2009-2010
- The Congress is a University-wide organization which addresses issues relevant to all graduate students and serves as a bridge between the graduate student body and the University administration.
- Graduate student representative 2010-2012 to the Graduate Program Committee, which

addresses issues relevant to graduate education

- Graduate student representative 2010 to the Chair Search Committee, which was formed to gather information from faculty, staff, and students concerning the appointment of a new department chair and provide recommendations to the Associate Dean of the College of Arts & Sciences
- Graduate student representative 2009-2010 to the Publicity and Awards Committee, which addresses public relations as well as nominations for faculty and staff for University- or higher-level awards
- Graduate student representative 2008-2009 to the Graduate Recruiting Committee, which recruits new graduate students to the program and organizes a visitation weekend for prospective students
- Graduate student representative 2007-2008 to the Undergraduate Program Committee, which addresses issues relevant to undergraduate education

Outreach activities:

- Organized and participated in demonstration shows at local elementary, middle, and high schools
- Coordinated our demonstrations with middle school Core Content for Science Assessment as defined by the Kentucky Department of Education's Academic Expectations for Science
- Served as the departmental graduate student outreach coordinator from 2009-2010
- In 2009, coordinated an on-campus demonstration show for National Chemistry Week which was open to the community and became an annual event for several years
- Served as a judge for undergraduate poster competitions and elementary school science fairs

Peer-reviewed publications:

1. "Lifetime measurements of 0^+ states in ^{168}Er with the Doppler-shift attenuation method." S. R. Leshner, A. Aprahamian, K. Lee, B. Alemayehu, L. M. Clark, X. James, J. C. T. Lowrie, M. Meier, L. McEwan, S. Mukhopadhyay, E. E. Peters, A. P. D. Ramirez, M. Ryan, B. G. Rice, A. Stratman, E. Temanson, J. R. Vanhoy, and S. W. Yates, Phys. Rev. C **106**, 044302 (2022).
2. "Neutron Elastic and Inelastic Cross Section Measurements on Silicon from 0.8-8 MeV." A.P.D. Ramirez, E.E. Peters, S. Mukhopadhyay, M.T. McEllistrem, S.W. Yates, E.C. Derdyn, S.F. Hicks, E.M. Lyons, T.J. Morin, J.R. Vanhoy, Nucl. Phys. A **1024**, 122474 (2022).
3. "Neutron Elastic and Inelastic Scattering Differential Cross Sections on Carbon." A.P.D. Ramirez, E.E. Peters, J.R. Vanhoy, S.F. Hicks, L.A. Alasagas, D.K. Alcorn-Dominguez, S.T. Block, S.T. Byrd, E.A. Chouinard, B.M. Combs, B.P. Crider, E.C. Derdyn, L. Downes, J.A. Erlanson, S.E. Evans, A.J. French, E.A. Garza, J. Girgis, S.W. Yates, Nucl. Phys. A **1023**, 122446 (2022).
4. "Probing the nuclear structure of candidates for neutrinoless double-beta decay with fast neutrons." S. W. Yates, S. Mukhopadhyay, B. P. Crider, E. E. Peters and A. P. D. Ramirez, J. Phys. Conf. Series **1643** 012163 (2020).
5. "Spectroscopic study of ^{47}Ca from the β^- decay of ^{47}K ." J. K. Smith, A. B. Garnsworthy, J. L. Pore, C. Andreoiu, A. D. MacLean, A. Chester, Z. Beadle, G. C. Ball, P. C. Bender, V. Bildstein, R. Braid, A. Diaz Varela, R. Dunlop, L. J. Evitts, P. E. Garrett, G. Hackman, S. V. Ilyushkin, B. Jigmeddorj, K.

- Kuhn, A. T. Laffoley, K. G. Leach, D. Miller, W. J. Mills, W. Moore, M. Moukaddam, B. Olaizola, E. E. Peters, A. J. Radich, E. T. Rand, F. Sarazin, C. E. Svensson, S. J. Williams, and S. W. Yates, Phys. Rev. C **102**, 054314 (2020).
6. "Absence of Low-Energy Shape Coexistence in ^{80}Ge : The Nonobservation of a Proposed Excited 0^+_2 Level at 639 keV." F. H. Garcia, C. Andreoiu, G. C. Ball, A. Bell, A. B. Garnsworthy, F. Nowacki, C. M. Petrache, A. Poves, K. Whitmore, F. A. Ali, N. Bernier, S. S. Bhattacharjee, M. Bowry, R. J. Coleman, I. Dillmann, I. Djianto, A. M. Forney, M. Gascoine, G. Hackman, K. G. Leach, A. N. Murphy, C. R. Natzke, B. Olaizola, K. Ortner, E. E. Peters, M. M. Rajabali, K. Raymond, C. E. Svensson, R. Umashankar, J. Williams, and D. Yates, Phys. Rev. Lett. **125**, 172501 (2020).
 7. "Photo response of ^{164}Dy ." O. Papst, V. Werner, J. Isaak, N. Pietralla, T. Beck, C. Bernards, M. Bhike, N. Cooper, B. P. Crider, U. Friman-Gayer, J. Kleemann, Krishichayan, B. Löher, F. Naqvi, E. E. Peters, F. M. Prados-Estévez, R. S. Ilieva, T. J. Ross, D. Savran, W. Tornow, and J. R. Vanhoy, Phys. Rev. C **102**, 034323 (2020).
 8. " $\Delta K=0$ M1 Excitation Strength of the Well-Deformed Nucleus ^{164}Dy from K Mixing." T. Beck, V. Werner, N. Pietralla, M. Bhike, N. Cooper, U. Friman-Gayer, J. Isaak, R. V. Jolos, J. Kleemann, Krishichayan, O. Papst, W. Tornow, C. Bernards, B. P. Crider, R. S. Ilieva, B. Löher, C. Mihai, F. Naqvi, S. Pascu, E. E. Peters, F. M. Prados-Estévez, T. J. Ross, D. Savran, J. R. Vanhoy, and A. Zilges, Phys. Rev. Lett. **125**, 092501 (2020).
 9. "Quadrupole Deformation of ^{110}Cd Studied with Coulomb Excitation." K. Wrzosek-Lipska, L. Próchniak, P.E. Garrett, S.W. Yates, J.L. Wood, P.J. Napiorkowski, T. Abraham, J.M. Allmond, F.L. Bello Garrote, H. Bidaman, V. Bildstein, C. Burbadge, M. Chiari, A. Diaz Varela, D.T. Doherty, S. Dutt, K. Hadynska-Klek, M. Hlebowicz, J. Iwanicki, B. Jigmeddorj, M. Kisielinski, M. Komorowska, M. Kowalczyk, R. Kumar, T. Marchlewski, M. Matejska-Minda, B. Olaizola, F. Oleszczuk, M. Palacz, E. Pasquali, E.E. Peters, M. Rocchini, E. Sahin, M. Saxena, J. Srebrny, A. Tucholski, Acta Physica Polonica B **51**, 789 (2020).
 10. "Firm spin and parity assignments for high-lying, low-spin levels in stable Si isotopes." J. Sinclair, M. Scheck, S. W. Finch, Krishichayan, U. Friman-Gayer, W. Tornow, G. Battaglia, T. Beck, R. Chapman, M. M. R. Chishti, Ch. Fransen, R. Gonzales, E. Hoemann, J. Isaak, R. V. F. Janssens, D. A. Jaroszynski, S. Johnson, M. D. Jones, J. M. Keatings, N. Kelly, J. Kleemann, D. Little, B. Löher, K. R. Mashtakov, M. Müscher, D. O'Donnell, O. Papst, E. E. Peters, D. Savran, M. Schilling, R. Schwengner, P. Spagnoletti, M. Spieker, V. Werner, J. Wilhelmy, O. Wieland, S. W. Yates & A. Zilges, The European Physical Journal A **56**, 105 (2020).
 11. "Relevance of the Nuclear Structure of the Stable Ge Isotopes to the Neutrino-less Double-Beta Decay of ^{76}Ge ." S. W. Yates, E. E. Peters, B. P. Crider, S. Mukhopadhyaya, and A. P. D. Ramirez, EPJ Web of Conferences **232**, 04011 (2020).
 12. "Detailed spectroscopy of ^{46}Ca : A study of the β^- decay of ^{46}K ." J. L. Pore, C. Andreoiu, J. K. Smith, A. D. MacLean, A. Chester, J. D. Holt, G. C. Ball, P. C. Bender, V. Bildstein, R. Braid, A. Diaz Varela, R. Dunlop, L. J. Evitts, A. B. Garnsworthy, P. E. Garrett, G. Hackman, S. V. Ilyushkin, B. Jigmeddorj, K. Kuhn, P. Kunz, A. T. Laffoley, K. G. Leach, D. Miller, W. J. Mills, W. Moore, M. Moukaddam, L. N. Morrison, B. Olaizola, E. E. Peters, A. J. Radich, E. T. Rand, F. Sarazin, D. Southall, C. E. Svensson, S. J. Williams, and S. W. Yates, Phys. Rev. C **100**, 054327 (2019).

13. "Undergraduate education at the University of Kentucky accelerator laboratory." A. P. D. Ramirez, B. Alemayehu, J. Lowrie, S. F. Hicks, J. R. Vanhoy, M. T. McEllistrem, S. Mukhopadhyay, E. E. Peters, and S. W. Yates, AIP Conference Proceedings **2160**, 050022 (2019).
14. "Conceptual design and first results for a neutron detector with interaction localization capabilities." J. Heideman, D. Pérez-Loureiro, R. Grzywacz, C.R. Thornsberry, J. Chan, L.H. Heilbronn, S.K. Neupane, K. Schmitt, M.M. Rajabali, A.R. Engelhardt, C.W. Howell, L.D. Mostella, J.S. Owens, S.C. Shadrick, E.E. Peters, A.P.D. Ramirez, S.W. Yates, K. Vaigneur, Nucl. Instrum. Meth. Phys. Res. A **946**, 162528 (2019).
15. "Emerging collectivity from the nuclear structure of ^{132}Xe : Inelastic neutron scattering studies and shell-model calculations." E.E. Peters, A.E. Stuchbery, A. Chakraborty, B.P. Crider, S.F. Ashley, A. Kumar, M.T. McEllistrem, F.M. Prados-Estévez, and S.W. Yates, Phys. Rev. C **99**, 064321 (2019).
16. " $E0$ strength in the stable Ni isotopes." L.J. Evitts, A.B. Garnsworthy, T. Kibédi, J. Smallcombe, M.W. Reed, A.E. Stuchbery, G.J. Lane, T.K. Eriksen, A. Akber, B. Alshahrani, M. de Vries, M.S.M. Gerathy, J.D. Holt, B.Q. Lee, B.P. McCormick, A.J. Mitchell, M. Moukaddam, S. Mukhopadhyay, N. Palalani, T. Palazzo, E.E. Peters, A.P.D. Ramirez, T. Tornyi, and S.W. Yates, Phys. Rev. C **99**, 024306 (2019).
17. "Inelastic neutron scattering studies of ^{76}Se ." S. Mukhopadhyay, B.P. Crider, B.A. Brown, A. Chakraborty, A. Kumar, M.T. McEllistrem, E.E. Peters, F.M. Prados-Estévez, and S.W. Yates, Phys. Rev. C **99**, 014313 (2019).
18. "The GRIFFIN facility for Decay-Spectroscopy studies at TRIUMF-ISAC." A.B. Garnsworthy, C.E. Svensson, M. Bowry, R. Dunlop, A.D. MacLean, B. Olaizola, J.K. Smith, F.A. Ali, C. Andreoiu, J.E. Ash, W.H. Ashfield, G.C. Ball, T. Ballast, C. Bartlett, Z. Beadle, P.C. Bender, N. Bernier, S.S. Bhattacharjee, H. Bidaman, V. Bildstein, D. Bishop, P. Boubel, R. Braid, D. Brennan, T. Bruhn, C. Burbadge, A. Cheeseman, A. Chester, R. Churchman, S. Ciccone, R. Caballero-Folch, D.S. Cross, S. Cruz, B. Davids, A. Diaz Varela, I. Dillmann, M.R. Dunlop, L.J. Evitts, F.H. Garcia, P.E. Garrett, S. Georges, S. Gillespie, R. Gudapati, G. Hackman, B. Hadinia, S. Hallam, J. Henderson, S.V. Ilyushkin, B. Jigmeddorj, A.I. Kilic, D. Kisliuk, R. Kokke, K. Kuhn, R. Krüken, M. Kuwabara, A.T. Laffoley, R. Lafleur, K.G. Leach, J.R. Leslie, Y. Linn, C. Lim, E. MacConnachie, A.R. Mathews, E. McGee, J. Measures, D. Miller, W.J. Mills, W. Moore, D. Morris, L.N. Morrison, M. Moukaddam, C.R. Natzke, K. Ortner, E. Padilla-Rodal, O. Paetkau, J. Park, H.P. Patel, C.J. Pearson, E. Peters, E.E. Peters, J.L. Pore, A.J. Radich, M.M. Rajabali, E.T. Rand, K. Raymond, U. Rizwan, P. Ruotsalainen, Y. Saito, F. Sarazin, B. Shaw, J. Smallcombe, D. Southall, K. Starosta, M. Ticu, E. Timakova, J. Turko, R. Umashankar, C. Unsworth, Z.M. Wang, K. Whitmore, S. Wong, S.W. Yates, E.F. Zganjar, T. Zidar, Nucl. Instrum. Meth. Phys. Res. A **918**, 9 (2019).
19. " $E0$ transition strengths in ^{110}Pd ." J. Smallcombe, J. Berean-Dutcher, M. Moukaddam, A.B. Garnsworthy, C. Andreoiu, R. Caballero-Folch, T.E. Drake, L.J. Evitts, G. Hackman, J. Henderson, A. Kurkjian, B. Olaizola, E.E. Peters, D. Southall, P. Ruotsalainen, C.E. Svensson, M. Wiens, S.W. Yates, and T. Zidar, Eur. Phys. J. A **54**, 165 (2018).

20. "Seniority structure of $^{136}\text{Xe}_{82}$." E. E. Peters, P. Van Isacker, A. Chakraborty, B. P. Crider, A. Kumar, S. H. Liu, M. T. McEllistrem, C. V. Mehl, F. M. Prados-Estévez, T. J. Ross, J. L. Wood, and S. W. Yates, Phys. Rev. C **98**, 034302 (2018).
21. "In-beam internal conversion electron spectroscopy with the SPICE detector." M. Moukaddam, J. Smallcombe, L.J. Evitts, A.B. Garnsworthy, C. Andreoiu, G.C. Ball, J. Berean-Dutcher, D. Bishop, C. Bolton, R. Caballero-Folch, M. Constable, D.S. Cross, T.E. Drake, R. Dunlop, P.E. Garrett, S. Georges, G. Hackman, S. Hallam, J. Henderson, R. Henderson, R. Krücken, L. Kurchaninov, A. Kurkjian, B. Olaizola, E. O'Sullivan, P. Lu, J. Park, E.E. Peters, J.L. Pore, E.T. Rand, P. Ruotsalainen, J.K. Smith, D. Southall, M. Spencer, C.E. Svensson, M. Wiens, M. Williams, S.W. Yates, T. Zidar, Nucl. Instrum. Meth. Phys. Res. A **905**, 180 (2018).
22. "Probing the structure of the stable Xe isotopes with inelastic neutron scattering." E.E. Peters, T.J. Ross, B.P. Crider, and S.W. Yates, EPJ Web of Conferences **178**, 02028 (2018).
23. " ^{54}Fe neutron elastic and inelastic scattering differential cross sections from 2–6 MeV." J.R. Vanhoy, S.H. Liu, S.F. Hicks, B.M. Combs, B.P. Crider, A.J. French, E.A. Garza, T. Harrison, S.L. Henderson, T.J. Howard, M.T. McEllistrem, S. Nigam, R.L. Pecha, E.E. Peters, F.M. Prados-Estévez, A.P.D. Ramirez, B.G. Rice, T.J. Ross, Z.C. Santonil, L.C. Sidwell, J.L. Steves, B.K. Thompson, S.W. Yates, Nucl. Phys. A **972**, 107 (2018).
24. "Identification of significant E0 strength in the $2_2^+ \rightarrow 2_1^+$ transitions of $^{58,60,62}\text{Ni}$." L.J. Evitts, A.B. Garnsworthy, T. Kibédi, J. Smallcombe, M.W. Reed, B.A. Brown, A.E. Stuchbery, G.J. Lane, T.K. Eriksen, A. Akber, B. Alshahrani, M. de Vries, M.S.M. Gerathy, J.D. Holt, B.Q. Lee, B.P. McCormick, A.J. Mitchell, M. Moukaddam, S. Mukhopadhyay, N. Palalani, T. Palazzo, E.E. Peters, A.P.D. Ramirez, S.R. Stroberg, T. Tornyi, S.W. Yates, Phys. Lett. B **779**, 396 (2018).
25. "Opportunities for Undergraduate Research in Nuclear Physics." S. F. Hicks, T. D. Nguyen, D. T. Jackson, S. G. Block, S. T. Byrd, M. T. Nickel, J. R. Vanhoy, E. E. Peters, A. P. D. Ramirez, M. T. McEllistrem, S. Mukhopadhyay, and S. W. Yates, Physcs. Proc. **90**, 323 (2017).
26. "Level lifetimes and the structure of ^{134}Xe from inelastic neutron scattering." E.E. Peters, A. Chakraborty, B.P. Crider, S.F. Ashley, E. Elhami, S.F. Hicks, A. Kumar, M.T. McEllistrem, S. Mukhopadhyay, J.N. Orce, F.M. Prados-Estévez, S.W. Yates, Phys. Rev. C **96**, 014313 (2017).
27. "Lifetime measurements of low-spin negative-parity levels in ^{160}Gd ." S. R. Leshner, C. Casarella, A. Aprahamian, L. M. Robledo, B. P. Crider, R. Ikeyama, I. R. Marsh, M. T. McEllistrem, E. E. Peters, F. M. Prados-Estévez, M. K. Smith, Z. R. Tully, J. R. Vanhoy, and S. W. Yates, Phys. Rev. C **95**, 064309 (2017).
28. "Neutron scattering cross section measurements for ^{56}Fe ." A. P. D. Ramirez, J. R. Vanhoy, S. F. Hicks, M. T. McEllistrem, E. E. Peters, S. Mukhopadhyay, T. D. Harrison, T. J. Howard, D. T. Jackson, P. D. Lenzen, T. D. Nguyen, R. L. Pecha, B. G. Rice, B. K. Thompson, and S. W. Yates, Phys. Rev. C **95**, 064605 (2017).
29. "Collective quadrupole behavior in ^{106}Pd ." F. M. Prados-Estévez, E. E. Peters, A. Chakraborty, M. G. Mynk, D. Bandyopadhyay, N. Boukharouba, S. N. Choudry, B. P. Crider, P. E. Garrett, S. F. Hicks, A. Kumar, S. R. Leshner, C. J. McKay, M. T. McEllistrem, S. Mukhopadhyay, J. N. Orce, M. Scheck, J. R. Vanhoy, J. L. Wood, and S. W. Yates, Phys. Rev. C **95**, 034328 (2017).

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2. "Low-lying Positive-parity Band Structure in ^{150}Nd ." A. Chakraborty, F.M. Prados-Estévez, S.N. Choudry, B.P. Crider, P.E. Garrett, W.D. Kulp, A. Kumar, M.T. McEllistrem, S. Mukhopadhyay, M.G. Mynk, J.N. Orce, E.E. Peters, J.L. Wood, and S.W. Yates, Proceedings of the DAE Symposium on Nuclear Physics **59**, 180-181, 2014.
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Contributed talks/presentations:

1. "Studies of the Stable Xe Isotopes from Inelastic Neutron Scattering and Shell Model Calculations." E.E. Peters, B.P. Crider, A.D. Stuchbery, P. Van Isacker, S.W. Yates. APS Fall Meeting of the Division of Nuclear Physics 2018, Waikoloa, HI, oral
2. "The Structure of the Stable Xe Isotopes from Inelastic Neutron Scattering and Shell Model Calculations." E.E. Peters, B.P. Crider, T.J. Ross, A.E. Stuchbery, S.W. Yates. Nuclear Structure 2018, Michigan St. University, East Lansing, MI, oral
3. "Level lifetimes and the nuclear structure of $^{134,136}\text{Xe}$ from inelastic neutron scattering." E.E. Peters, A. Chakraborty, B.P. Crider, T. J. Ross, S.F. Ashley, E. Elhami, S.F. Hicks, A. Kumar, S.H. Liu, M.T. McEllistrem, S. Mukhopadhyay, J.N. Orce, F.M. Prados-Estévez, S. W. Yates. APS Fall Meeting of the Division of Nuclear Physics 2017, Pittsburgh, PA, oral
4. "Probing the structure of the stable Xe isotopes with inelastic neutron scattering." E. E. Peters, T. J. Ross, B. P. Crider, M. T. McEllistrem, and S. W. Yates. 16th International Symposium on Capture Gamma-ray Spectroscopy and Related Topics 2017, Shanghai, China, oral
5. "The University of Kentucky Accelerator Laboratory." E. E. Peters. ARUNA workshop at the Low-energy Community Meeting 2016, University of Notre Dame, Notre Dame, IN, oral
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- McEllistrem, and S.W. Yates. APS Fall Meeting of the Division of Nuclear Physics 2015, Santa Fe, NM, oral
8. "Nuclear Photography." E.E. Peters. University of Kentucky Postdoctoral Symposium 2015, Lexington, KY, oral
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 10. "Inelastic neutron scattering studies of $^{132,134}\text{Xe}$: Elucidating structure in a transitional region and possible interferences for $0\nu\beta\beta$ searches." E. E. Peters, T. J. Ross, A. Chakraborty, B. P. Crider, A. Kumar, M. T. McEllistrem, F. M. Prados-Estévez, S. W. Yates. 15th International Symposium on Capture Gamma-ray Spectroscopy and Related Topics 2014, Dresden, Germany, oral
 11. "The nuclear structure of $^{132,134}\text{Xe}$: Relevance to shape transitions and neutrinoless double-beta decay." Erin E. Peters, Anagha Chakraborty, Benjamin P. Crider, Ajay Kumar, Marcus T. McEllistrem, Francisco M. Prados-Estévez, Timothy J. Ross, Steven W. Yates. ACS National Meeting August 2014, San Francisco, CA, oral
 12. "The University of Kentucky Accelerator Laboratory." E. E. Peters. ARUNA Workshop 2014, University of Notre Dame, Notre Dame, IN, oral
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 14. "Level lifetimes in ^{94}Zr : From anomaly to resolution." Erin E. Peters, Anagha Chakraborty, Benjamin P. Crider, Ajay Kumar, Marcus T. McEllistrem, Francisco M. Prados-Estévez, Steven W. Yates. 245th ACS National Meeting April 2013, New Orleans, LA, oral
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 16. "A New Investigation of ^{94}Zr with the $(n,n'\gamma)$ Reaction." E. E. Peters, A. Chakraborty, B. P. Crider, A. Kumar, M. T. McEllistrem, F. M. Prados-Estévez, S. W. Yates. APS Fall Meeting of the Division of Nuclear Physics 2012, Newport Beach, CA, oral
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21. "Low-lying structure of ^{134}Xe ." Erin E. Peters, Benjamin Crider, Stephen F. Ashley, and Steven W. Yates. 238th ACS National Meeting August 2009, Washington, D.C., oral

Invited talks:

1. "TBD." 17th International Symposium on Capture Gamma-Ray Spectroscopy and Related Topics, Grenoble, France, July 2023 (postponed from August 2020).
2. "Nuclear structure for neutrinoless double-beta decay." APS April Meeting, virtual conference, April 19, 2021.
3. "Resolving an anomaly: The nuclear structure of ^{94}Zr ." University of Kentucky Department of Physics and Astronomy nuclear group seminar, September 27, 2018.
4. "Resolving an anomaly: The nuclear structure of ^{94}Zr ." Ohio University Institute of Nuclear and Particle Physics seminar, September 11, 2018.
5. "A Tale of Two Structures: Nuclear and Material." Mississippi State University Department of Physics and Astronomy colloquium, November 20, 2017.
6. "The transitional structure of $^{132,134}\text{Xe}$." ISTROS 2015, Bratislava, Slovakia, May 1-6, 2015.
7. "The Zr story: How poorly understood material structure created interesting nuclear structure." Presentation to the University of Kentucky Department of Physics & Astronomy graduate students, February 11, 2015.
8. "Chemical Effects in Femtosecond Nuclear Half-life Measurements." University of the Cumberlands, Department of Chemistry, November 8, 2013.
9. "Nuclear level lifetimes in ^{94}Zr : From anomaly to resolution." Los Alamos National Laboratory, Division of Actinide Analytical Chemistry, July 18, 2013.