

Erin E. Peters

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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') 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:

Postdoctoral Scholar, May 2014 – present

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 (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
- 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

Part-time Instructor, January 2015 – May 2017, August 2018 – present

Department of Chemistry, University of Kentucky

- Primary instructor for CHE105 General College Chemistry I, spring/fall 2015, fall 2016, fall 2018
- Primary instructor for CHE107 General College Chemistry II, spring 2016, spring 2017,

spring 2018

- Taught one section each semester with 55-270 students in a freshman-level course
- Regularly prepared and presented in-class demonstrations
- Implemented TurningPoint or iClicker response systems in the classroom each semester integrated with PowerPoint
- Familiar with Blackboard, Canvas, Echo360, Piazza, MasteringChemistry, Sapling, and ExamSoft
- Attended workshops and seminars presented by the Center for the Enhancement of Learning and Teaching
- Teaching evaluations available upon request; also listed on "Rate My Professors"

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

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

- Project title: “Hydrophobic interaction chromatography for protein separation using polypropylene capillary-channeled polymer (C-CP™) fibers as a stationary phase.”
Advisor: Prof. R. Kenneth Marcus

Professional societies:

American Chemical Society, member since 2005

- Member of the Division of Nuclear Chemistry and Technology (NUCL) in the American Chemical Society
 - Member of the Website Committee of the Division

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 – present

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

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 has become an annual event

Served as a judge for undergraduate poster competitions and elementary school science fairs

Peer-reviewed publications:

1. "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 submitted Nov. 30, 2018.
2. "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, accepted Dec. 14, 2018.
3. "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. Kisiuk, 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).

4. "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).
5. "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).
6. "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).
7. "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).
8. " ^{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).
9. "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. Torny, S.W. Yates, *Phys. Lett. B* **779**, 396 (2018).
10. "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).
11. "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).
12. "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).
13. "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).

14. "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. Lesher, 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).
15. "Nuclear structure of ^{76}Ge from inelastic neutron scattering measurements and shell model calculations." S. Mukhopadhyay, B. P. Crider, B. A. Brown, S. F. Ashley, A. Chakraborty, A. Kumar, M. T. McEllistrem, E. E. Peters, F. M. Prados-Estévez, and S. W. Yates, *Phys. Rev. C* **95**, 014327 (2017).
16. "Inelastic neutron scattering cross section measurements for $^{134,136}\text{Xe}$ of relevance to neutrinoless double- β decay searches." E. E. Peters, T. J. Ross, S. H. Liu, M. T. McEllistrem, and S. W. Yates, *Phys. Rev. C* **95**, 014325 (2017).
17. " 0^+ states in $^{130,132}\text{Xe}$: A search for E(5) behavior." E. E. Peters, T. J. Ross, S. F. Ashley, A. Chakraborty, B. P. Crider, M. D. Hennek, S. H. Liu, M. T. McEllistrem, S. Mukhopadhyay, F. M. Prados-Estévez, A. P. D. Ramirez, J. S. Thrasher, and S. W. Yates, *Phys. Rev. C* **94**, 024313 (2016).
18. "E0 transitions in ^{106}Pd : Implications for Shape Coexistence." E. E. Peters, F. M. Prados-Estévez, 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. Lesher, C. J. McKay, M. T. McEllistrem, S. Mukhopadhyay, J. N. Orce, M. Scheck, J. R. Vanhoy, J. L. Wood, and S. W. Yates, *Eur. Phys. J. A* **52**, 96 (2016).
19. "Measurements of response functions of EJ-299-33A plastic scintillator for fast neutrons." J. Hartman, A. Barzilov, E. E. Peters, and S. W. Yates, *Nucl. Instrum. Meth. Phys. Res. A* **804**, 137-143 (2015).
20. "Inelastic neutron scattering cross sections for ^{76}Ge relevant to background in neutrinoless double- β decay experiments." B.P. Crider, E.E. Peters, J.M. Allmond, M.T. McEllistrem, F.M. Prados-Estévez, T.J. Ross, J.R. Vanhoy, and S.W. Yates, *Phys. Rev. C* **92**, 034310 (2015).
21. "Collectivity of 0^+ states in ^{160}Gd ." S. R. Lesher, C. Casarella, A. Aprahamian, 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* **91**, 054317 (2015).
22. "Neutron Scattering Differential Cross Sections on ^{23}Na from 1.5 to 4.5 MeV." J.R. Vanhoy, S.F. Hicks, A. Chakraborty, B.R. Champine, B. Combs, B.P. Crider, L.J. Kersting, A. Kumar, C.J. Lueck, S.H. Liu, P.J. McDonough, M.T. McEllistrem, E.E. Peters, F.M. Prados-Estévez, L.C. Sidwell, A. Sigillito, D.W. Watts, and S.W. Yates, *Nucl. Phys. A* **939**, 121–140 (2015).
23. "DESCANT and β -delayed neutron measurements at TRIUMF." V. Bildstein, P.E. Garrett, S.F. Ashley, G.C. Ball, L. Bianco, D. Bandyopadhyay, J. Bangay, B.P. Crider, G. Demand, G. Deng, I. Dillmann, A. Finlay, A.B. Garnsworthy, G. Hackman, B. Hadinia, R. Krücken, K.G. Leach, J-P. Martin, M.T. McEllistrem, C.J. Pearson, E.E. Peters, F.M. Prados-Estévez, A. Radich, F. Sarazin, C. Sumithrarachchi, C.E. Svensson, J.R. Vanhoy, J. Wong, and S.W. Yates, *EPJ Web of Conferences* **93**, 07005 (2015).
24. "Inelastic Neutron Scattering Studies of ^{76}Se and ^{76}Ge Relevant to Neutrinoless Double- β Decay." B.P. Crider, J.M. Allmond, M.T. McEllistrem, E.E. Peters, F.M. Prados-Estévez, T.J. Ross, J.R. Vanhoy, and S.W. Yates, *EPJ Web of Conferences* **93**, 05001 (2015).

25. "The Neutron Time-of-Flight Cross Section Program at the University of Kentucky – Adventures in Analysis II." J.R. Vanhoy, S.F. Hicks, B.P. Crider, A.J. French, E.A. Garza, S.L. Henderson, T.J. Howard, S.H. Liu, S. Nigam, L. Pecha, E.E. Peters, F.M. Prados-Estévez, M.T. McEllistrem, B.G. Rice, T.J. Ross, Z.C. Santonil, L.C. Sidwell, J.L. Steves, and S.W. Yates, EPJ Web of Conferences **93**, 02014 (2015).
26. "Elastic and Inelastic Neutron Scattering on $^{54,56}\text{Fe}$." S. F. Hicks, J. R. Vanhoy, A. J. French, S. L. Henderson, T. J. Howard, R. L. Pecha, Z. C. Santonil, B.P. Crider, S. Liu, M.T. McEllistrem, E.E. Peters, F.M. Prados-Estévez, T.J. Ross, and S.W. Yates, EPJ Web of Conferences **93**, 02002 (2015).
27. "Dipole strength distributions from HIGS Experiments." V. Werner, N. Cooper, P.M. Goddard, P. Humby, R.S. Ilieva, G. Rusev, J. Beller, C. Bernards, B.P. Crider, J. Isaak, J.H. Kelley, E. Kwan, B. Löher, E.E. Peters, N. Pietralla, C. Romig, D. Savran, M. Scheck, A.P. Tonchev, W. Tornow, S.W. Yates, and M. Zweidinger, EPJ Web of Conferences **93**, 01031 (2015).
28. "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, and S.W. Yates, EPJ Web of Conferences **93**, 01027 (2015).
29. "No-Spin States' and Low-Lying Structures in ^{130}Xe and ^{136}Xe ." T.J. Ross, E.E. Peters, A. Chakraborty, B.P. Crider, A. Kumar, S.H. Liu, M.T. McEllistrem, F.M. Prados-Estévez, J.R. Vanhoy, and S.W. Yates, EPJ Web of Conferences **93**, 01010 (2015).
30. "Undergraduate Measurements of Neutron Cross Sections." S. F. Hicks, J. R. Vanhoy, A. J. French, Z. C. Santonil, B. P. Crider, E. E. Peters, M. T. McEllistrem, F. M. Prados-Estévez, T. J. Ross, and S.W. Yates, Physcs. Proc. **66**, 641-648 (2015).
31. "A Study of Measured Neutron Elastic Differential Neutron Cross Sections for ^{23}Na ." A. Kumar, M. Balasubramanian, A. Chakraborty, B.P. Crider, S.F. Hicks, C. Karthikraj, L. J. Kersting, C.J. Luke, P. J. McDonough, M.T. McEllistrem, E.E. Peters, F.M. Prados-Estévez, A. J. Sigillito, M.M. Upadhyay, J.R. Vanhoy, and S.W. Yates, J. Radioanal. Nucl. Chem. **302**, 1043-1047, (2014).
32. "The DEuterated SCintillator Array for Neutron Tagging: A neutron tagging array for TRIUMF-ISAC." J. Wong, V. Bildstein, P.E. Garrett, D. Bandyopadhyay, J. Bangay, L. Bianco, G. Demand, G. Deng, A. Finlay, B. Hadinia, K.G. Leach, A. Liblong, C.E. Svensson, C. Sumithrarachchi, G.C. Ball, R. Churchman, A. Garnsworthy, G. Hackman, C.J. Pearson, J.P. Martin, S.F. Ashley, B.P. Crider, M.T. McEllistrem, E.E. Peters, F.M. Prados-Estévez, S.W. Yates and J.R. Vanhoy, EPJ Web of Conferences **66**, 11040 (2014).
33. "Level Lifetimes in ^{94}Zr from DSAM Measurements following Inelastic Neutron Scattering." S. W. Yates, E. E. Peters, A. Chakraborty, B. P. Crider, M. T. McEllistrem, F. M. Prados-Estévez, and J. R. Vanhoy, EPJ Web of Conferences **66**, 02111 (2014).
34. "Nuclear Structure Studies of ^{106}Pd and ^{106}Cd with the $(n,n'\gamma)$ Reaction." F.M. Prados-Estévez, A. Chakraborty, E.E. Peters, M.G. Mynk, A. Linnemann, D. Bandyopadhyay, N. Boukharouba, S.N. Choudry, B.P. Crider, P.E. Garrett, S.F. Hicks, J. Jolie, A. Kumar, S.R. Leshner, C.J. McKay, M.T. McEllistrem, S. Mukhopadhyay, J.N. O'Keefe, M. Scheck, J.R. Vanhoy, J.L. Wood, and S.W. Yates, EPJ Web of Conferences **66**, 02085 (2014).

35. "Inelastic Neutron Scattering on ^{160}Gd ." S. R. Leshner, C. Casarella, B. P. Crider, I. Marsh, E. E. Peters, F. M. Prados-Estévez, M. Smith, J. R. Vanhoy, A. Aprahamian, and S. W. Yates, EPJ Web of Conferences **66**, 02063 (2014).
36. "Differential Cross Sections for Neutron Elastic and Inelastic Scattering on ^{23}Na ." J. R. Vanhoy, S. F. Hicks, A. Chakraborty, B. R. Champine, B. Combs, B. P. Crider, L. J. Kersting, A. Kumar, C. J. Lueck, P. J. McDonough, M. T. McEllistrem, E. E. Peters, F. M. Prados-Estévez, L. Sidwell, A. Sigillito, D. W. Watts, S. W. Yates, EPJ Web of Conferences **66** 03091 (2014).
37. "Dipole response of ^{76}Se above 4 MeV." P. M. Goddard, N. Cooper, V. Werner, G. Rusev, P. D. Stevenson, A. Rios, C. Bernards, A. Chakraborty, B. P. Crider, J. Glorius, R. S. Ilieva, J. H. Kelley, E. Kwan, E. E. Peters, N. Pietralla, R. Raut, C. Romig, D. Savran, L. Schnorrenberger, M. K. Smith, K. Sonnabend, A. P. Tonchev, W. Tornow, and S. W. Yates, Phys. Rev. C **88**, 064308 (2013).
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2. “Differential cross-section measurements at the University of Kentucky – Adventures in analysis.” J.R. Vanhoy, S.F. Hicks, B.R. Champine, B.P. Crider, E.A. Garza, S.L. Henderson, S.H. Liu, E.E. Peters, F.M. Prados-Estévez, M.T. McEllistrem, T.J. Ross, L.C. Sidwell, J.L. Steves, and S.W. Yates, Collaborative International Evaluated Library Organisation (CIELO), Workshop Proceedings, 5-8 November 2013, Geel, Belgium, Nuclear Science, NEA/NSC/DOC(2014) **13**, 85-93.
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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
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6. “Revealing the structure of ^{106}Pd .” E. E. Peters, F. M. Prados-Estévez, A. Chakraborty, M. G. Mynk, S. N. Choudry, B. P. Crider, P. E. Garrett, D. Bandyopadhyay, S. F. Hicks, A Kumar, S. R. Leshner, C. J. McKay, M. T. McEllistrem, J. N. Orce, M. Scheck, J. R. Vanhoy, J. L. Wood, and S. W. Yates. Nuclear Structure 2016, Knoxville, TN, poster
7. “The search for an E(5) critical-point nucleus among the stable xenon isotopes.” E.E. Peters, T.J. Ross, A. Chakraborty, B.P. Crider, A. Kumar, F.M. Prados-Estévez, S.F. Ashley, M.T. 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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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
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15. "The Nuclear Structure of ^{94}Zr : From anomaly to resolution." Erin E. Peters. University of Kentucky Department of Chemistry seminar, December 7, 2012, oral
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Invited talks:

1. “Resolving an anomaly: The nuclear structure of ^{94}Zr .” University of Kentucky Department of Physics and Astronomy nuclear group seminar, September 27, 2018.
2. “Resolving an anomaly: The nuclear structure of ^{94}Zr .” Ohio University Institute of Nuclear and Particle Physics seminar, September 11, 2018.
3. “A Tale of Two Structures: Nuclear and Material.” Mississippi State University Department of Physics and Astronomy colloquium, November 20, 2017.
4. “The transitional structure of $^{132,134}\text{Xe}$.” ISTROS 2015, Bratislava, Slovakia, May 1-6, 2015.
5. “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.
6. “Chemical Effects in Femtosecond Nuclear Half-life Measurements.” University of the Cumberlands, Department of Chemistry, November 8, 2013.
7. “Nuclear level lifetimes in ^{94}Zr : From anomaly to resolution.” Los Alamos National Laboratory, Division of Actinide Analytical Chemistry, July 18, 2013.

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