Erin E. Peters, Ph.D.

fe.peters@uky.edu
https://chem.as.uky.edu/users/eepete2/

Education

May 10, 2014 — **Ph.D. in Chemistry, University of Kentucky, Lexington, KY**
Dissertation: "Nuclear structure in transitional regions: Studies of ^{132,134}Xe and lifetimes in ^{94}Zr with the (n,n$'\gamma$) reaction"
Advisor: Prof. Steven W. Yates

May 13, 2006 — **B.S. in Chemistry, University of the Cumberlands, Williamsburg, KY**
Undergraduate thesis: "A study of cholesterol purification using pyridinium tribromide and tetra-n-butylammonium tribromide"
Advisor: Prof. Julie Tan

Employment History

Jan. 2025 – present — **Assistant Professor** Department of Chemistry, University of Kentucky, Lexington, KY

Jan. 2024 – present — **Interim Director** University of Kentucky Accelerator Laboratory

Jan. 2022 – Dec. 2024 — **Lecturer** Department of Chemistry, University of Kentucky, Lexington, KY

Aug. 2019 – Dec. 2021 — **Full-time Temporary Instructor**, Department of Chemistry, University of Kentucky, Lexington, KY

July 2019 — **Consultant**, Elemental Analysis Inc., Lexington, KY

May 2014 – July 2019 — **Postdoctoral Scholar**, Department of Chemistry, University of Kentucky, Lexington, KY

Jan. 2015 – May 2017, Aug. 2018 – May 2019 — **Part-time Instructor**, Department of Chemistry, University of Kentucky, Lexington, KY

Courses Taught

CHE105 — General College Chemistry I. First-semester freshman chemistry, class sizes up to 280, spring 2015-present

CHE107 — General College Chemistry II. Second-semester freshman chemistry, class sizes up to 270, spring semesters 2016-present

CHE226 — Analytical Chemistry. Undergraduate-level course for majors and minors, fall semesters 2021-present

Recitations — General chemistry recitation coordinator 2022-2023, up to 11 teaching assistants and 1800 total undergraduate students; Taught all recitations virtually for CHE105 spring 2021

Grants Awarded

NSF

- "Probing Nuclear Structure and Shape Coexistence with Fast Neutrons," National Science Foundation, Principle Investigator as of Dec. 1, 2023, prior Co-Investigator with S.W. Yates, $683,486, PHY-2209178, 8/1/2022-7/31/2025
- "Examining Nuclear Structure with Fast Neutrons," National Science Foundation, Principle Investigator as of Dec. 12, 2023, $499,999, PHY-1913028, 8/5/2019-11/30/2024

DOE

- "Neutron Scattering Cross Sections: (n,n′), (n,n′γ), and (n,γ) Measurements," Department of Energy, Principle Investigator as of Dec. 1, 2023, $149,862 (year 3 only), DE-SC0021424, 12/1/2022-11/30/2024

Publications

Peer-Reviewed Publications

1. **E. E. Peters**, B. A. Brown, S. Mukhopadhyay, A. P. D. Ramirez, and S. W. Yates, "Nuclear structure of ^{74}Ge from inelastic neutron scattering measurements and shell-model calculations," *Phys. Rev. C*, vol. 109, p. 054 318, 5 May 2024. DOI: 10.1103/PhysRevC.109.054318.

2. J. Deary, M. Scheck, R. Schwengner, D. O´Donnell, D. Bemmerer, R. Beyer, T. Hensel, A. R. Junghans, T. Kögler, S. E. Müller, K. Römer, K. Schmidt, S. Turkat, S. Urlaß, A. Wagner, M. Bowry, P. Adsley, O. Agar, R. Chapman, F. C. L. Crespi, D. T. Doherty, U. F. Gayer, R.-D. Herzberg, J. Isaak, R. V. F. Janssens, T. Kröll, B. Löher, B. S. Nara Singh, P. von Neumann-Cosel, L. Pellegri, **E. E. Peters**, G. Rainovski, D. Savran, J. F. Smith, M. Spieker, P. G. Thirolf, S. Triambak, W. Tornow, M. Venhart, M. Wiedeking, O. Wieland, S. W. Yates, and A. Zilges, "Photo-response of the $N = Z$ nucleus ^{24}Mg," *Eur. Phys. J. A*, vol. 59, no. 9, p. 198, 2023. DOI: 10.1140/epja/s10050-023-01111-7.

3. S. R. Johnson, R. V. F. Janssens, U. Friman-Gayer, B. A. Brown, B. P. Crider, S. W. Finch, Krishichayan, D. R. Little, S. Mukhopadhyay, **E. E. Peters**, A. P. D. Ramirez, J. A. Silano, A. P. Tonchev, W. Tornow, and S. W. Yates, "Testing shell-model interactions at high excitation energy and low spin: Nuclear resonance fluorescence in ^{74}Ge," *Phys. Rev. C*, vol. 108, p. 024 315, 2 Aug. 2023. DOI: 10.1103/PhysRevC.108.024315.

4. S. R. Lesher, 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, "Lifetime measurements of 0^+ states in ^{168}Er with the Doppler-shift attenuation method," *Phys. Rev. C*, vol. 106, p. 044 302, 4 Oct. 2022. DOI: 10.1103/PhysRevC.106.044302.

5. A. P. D. Ramirez, **E. E. Peters**, S. Mukhopadhyay, M. T. McEllistrem, S. W. Yates, E. C. Derdeyn, S. F. Hicks, E. M. Lyons, T. J. Morin, and J. R. Vanhoy, "Neutron elastic and inelastic cross section measurements on silicon from $0.8 - 8$ MeV," *Nuclear Physics A*, vol. 1024, p. 122 474, 2022, ISSN: 0375-9474. DOI: https://doi.org/10.1016/j.nuclphysa.2022.122474.

6. 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, T. D. Harrison, S. L. Henderson, T. J. Howard, D. T. Jackson, L. J. Kersting, A. Kumar, S. H. Liu, C. J. Lueck, E. M. Lyons, P. J. McDonough, M. T. McEllistrem, T. J. Morin, S. Mukhopadhyay, T. A. Nguyen, M. Nickel, S. Nigam, R. L. Pecha, J. Potter, F. M. Prados-Estévez, B. G. Rice, T. J. Ross, Z. C. Santonil, J. Schneiderjan, L. C. Sidwell, A. J. Sigillito, J. L. Steves, B. K. Thompson, D. W. Watts, Y. Xiao, and S. W. Yates, "Neutron elastic and inelastic scattering differential cross sections on carbon," *Nuclear Physics A*, vol. 1023, p. 122 446, 2022, ISSN: 0375-9474. DOI: https://doi.org/10.1016/j.nuclphysa.2022.122446.

7. 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-Estevez, T. J. Ross, D. Savran, J. R. Vanhoy, and A. Zilges, "$\Delta K = 0$ $M1$ excitation strength of the well-deformed nucleus ^{164}Dy from K mixing," *Phys. Rev. Lett.*, vol. 125, p. 092 501, 9 Aug. 2020. DOI: 10.1103/PhysRevLett.125.092501.

8 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, "Absence of low-energy shape coexistence in ^{80}Ge: The nonobservation of a proposed excited 0_2^+ level at 639 keV," *Phys. Rev. Lett.*, vol. 125, p. 172 501, 17 Oct. 2020. DOI: 10.1103/PhysRevLett.125.172501.

9 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, "Photo response of ^{164}Dy," *Phys. Rev. C*, vol. 102, p. 034 323, 3 Sep. 2020. DOI: 10.1103/PhysRevC.102.034323.

10 J. Sinclair, M. Scheck, S. W. Finch, Krishichayan, U. Friman-Gayer, W. Tornow, G. Battaglia, T. Beck, R. Chapman, M. M. R. Chishti, C. 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, and A. Zilges, "Firm spin and parity assignments for high-lying, low-spin levels in stable Si isotopes," *Eur. Phys. J. A*, vol. 56, no. 4, p. 105, 2020. DOI: 10.1140/epja/s10050-020-00118-8.

11 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. D. 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, "Spectroscopic study of ^{47}Ca from the β^- decay of ^{47}K," *Phys. Rev. C*, vol. 102, p. 054 314, 5 Nov. 2020. DOI: 10.1103/PhysRevC.102.054314.

12 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, and A. Tucholski, "Quadrupole deformation of ^{110}Cd studied with Coulomb excitation," *Acta Phys. Pol. B*, vol. 51, p. 789, 2020. DOI: 10.5506/APhysPolB.51.789.

13 S. W. Yates, S. Mukhopadhyay, B. P. Crider, **E. E. Peters**, and A. P. D. Ramirez, "Probing the nuclear structure of candidates for neutrinoless double-beta decay with fast neutrons," *Journal of Physics: Conference Series*, vol. 1643, no. 1, p. 012 163, Dec. 2020. DOI: 10.1088/1742-6596/1643/1/012163.

14 S. W. Yates, **E. E. Peters**, B. P. Crider, S. Mukhopadhyay, and A. P. D. Ramirez, "Relevance of the nuclear structure of the stable Ge isotopes to the neutrino-less double-beta decay of ^{76}Ge," *EPJ Web Conf.*, vol. 232, p. 04 011, 2020. DOI: 10.1051/epjconf/202023204011.

15 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, "$E0$ transition strength in stable Ni isotopes," *Phys. Rev. C*, vol. 99, p. 024 306, 2 Feb. 2019. DOI: 10.1103/PhysRevC.99.024306.

16 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. Ilyushkin, B. Jigmeddorj, A. I. Kilic, D. Kisliuk, R. Kokke, K. Kuhn, R. Krücken, 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, and T. Zidar, "The GRIFFIN facility for decay-spectroscopy studies at TRIUMF-ISAC," *Nuclear Instruments and Methods in Physics Research Section A: Accelerators, Spectrometers, Detectors and Associated Equipment*, vol. 918, pp. 9–29, 2019, ISSN: 0168-9002. DOI: https://doi.org/10.1016/j.nima.2018.11.115.

17 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, and K. Vaigneur, "Conceptual design and first results for a neutron detector with interaction localization capabilities," *Nuclear Instruments and Methods in Physics Research Section A: Accelerators, Spectrometers, Detectors and Associated Equipment*, vol. 946, p. 162 528, 2019, ISSN: 0168-9002. DOI: https://doi.org/10.1016/j.nima.2019.162528.

18 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, "Inelastic neutron scattering studies of ^{76}Se," *Phys. Rev. C*, vol. 99, p. 014 313, 1 Jan. 2019. DOI: 10.1103/PhysRevC.99.014313.

19 **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, "Emerging collectivity from the nuclear structure of ^{132}Xe: Inelastic neutron scattering studies and shell-model calculations," *Phys. Rev. C*, vol. 99, p. 064 321, 6 Jun. 2019. DOI: 10.1103/PhysRevC.99.064321.

20 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, "Detailed spectroscopy of ^{46}Ca: A study of the β^- decay of ^{46}K," *Phys. Rev. C*, vol. 100, p. 054 327, 5 Nov. 2019. DOI: 10.1103/PhysRevC.100.054327.

21 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, "Undergraduate education at the University of Kentucky accelerator laboratory," *AIP Conference Proceedings*, vol. 2160, no. 1, p. 050 022, Oct. 2019, ISSN: 0094-243X. DOI: 10.1063/1.5127714. eprint: https://pubs.aip.org/aip/acp/article-pdf/doi/10.1063/1.5127714/14196459/050022_1_online.pdf.

22 Erin E. Peters, Timothy J. Ross, Benjamin P. Crider, and Steven W. Yates, "Probing the structure of the stable Xe isotopes with inelastic neutron scattering," *EPJ Web Conf.*, vol. 178, p. 02 028, 2018. DOI: 10.1051/epjconf/201817802028.

23 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, and S. W. Yates, "Identification of significant $E0$ strength in the $2_2^+ \rightarrow 2_1^+$ transitions of ^{58,60,62}Ni," *Physics Letters B*, vol. 779, pp. 396–401, 2018, ISSN: 0370-2693. DOI: https://doi.org/10.1016/j.physletb.2018.01.076.

24 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, and T. Zidar, "In-beam internal conversion electron spectroscopy with the SPICE detector," *Nuclear Instruments and Methods in Physics Research Section A: Accelerators, Spectrometers, Detectors and Associated Equipment*, vol. 905, pp. 180–187, 2018, ISSN: 0168-9002. DOI: https://doi.org/10.1016/j.nima.2018.07.064.

25 **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, "Seniority structure of $^{136}\mathrm{Xe}_{82}$," *Phys. Rev. C*, vol. 98, p. 034 302, 3 Sep. 2018. DOI: 10.1103/PhysRevC.98.034302.

26 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, "$E0$ transition strengths in ^{110}Pd," *Eur. Phys. J. A*, vol. 54, no. 10, p. 165, 2018. DOI: 10.1140/epja/i2018-12604-5.

27 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, and S. W. Yates, "^{54}Fe neutron elastic and inelastic scattering differential cross sections from $2-6$ MeV," *Nuclear Physics A*, vol. 972, pp. 107–120, 2018, ISSN: 0375-9474. DOI: https://doi.org/10.1016/j.nuclphysa.2018.02.004.

28 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, "Opportunities for undergraduate research in nuclear physics," *Physics Procedia*, vol. 90, pp. 323–331, 2017, Conference on the Application of Accelerators in Research and Industry, CAARI 2016, 30 October – 4 November 2016, Ft. Worth, TX, USA, ISSN: 1875-3892. DOI: https://doi.org/10.1016/j.phpro.2017.09.024.

29 S. R. Lesher, 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, "Lifetime measurements of low-spin negative-parity levels in ^{160}Gd," *Phys. Rev. C*, vol. 95, p. 064 309, 6 Jun. 2017. DOI: 10.1103/PhysRevC.95.064309.

30 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, "Nuclear structure of ^{76}Ge from inelastic neutron scattering measurements and shell model calculations," *Phys. Rev. C*, vol. 95, p. 014 327, 1 Jan. 2017. DOI: 10.1103/PhysRevC.95.014327.

31 **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, and S. W. Yates, "Level lifetimes and the structure of ^{134}Xe from inelastic neutron scattering," *Phys. Rev. C*, vol. 96, p. 014 313, 1 Jul. 2017. DOI: 10.1103/PhysRevC.96.014313.

32 **E. E. Peters**, T. J. Ross, S. H. Liu, M. T. McEllistrem, and S. W. Yates, "Inelastic neutron scattering cross section measurements for ^{134,136}Xe of relevance to neutrinoless double-β decay searches," *Phys. Rev. C*, vol. 95, p. 014 325, 1 Jan. 2017. DOI: 10.1103/PhysRevC.95.014325.

33 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, "Collective quadrupole behavior in ^{106}Pd," *Phys. Rev. C*, vol. 95, p. 034 328, 3 Mar. 2017. DOI: 10.1103/PhysRevC.95.034328.

34 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, "Neutron scattering cross section measurements for ^{56}Fe," *Phys. Rev. C*, vol. 95, p. 064 605, 6 Jun. 2017. DOI: 10.1103/PhysRevC.95.064605.

35 **E. E. Peters**, F. M. Prados-Estévez, A. Chakraborty, M. G. Mynk, D. Bandyopadhyay, S. N. Choudry, B. P. Crider, P. E. Garrett, S. F. Hicks, A. Kumar, S. R. Lesher, C. J. McKay, J. N. Orce, M. Scheck, J. R. Vanhoy, J. L. Wood, and S. W. Yates, "$E0$ transitions in ^{106}Pd: Implications for shape coexistence," *Eur. Phys. J. A*, vol. 52, no. 4, p. 96, 2016. DOI: 10.1140/epja/i2016-16096-y.

36 **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, "0^+ states in ^{130,132}Xe: A search for $E(5)$ behavior," *Phys. Rev. C*, vol. 94, p. 024 313, 2 Aug. 2016. DOI: 10.1103/PhysRevC.94.024313.

37 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, "DESCANT and β-delayed neutron measurements at TRIUMF," *EPJ Web of Conferences*, vol. 93, p. 07 005, 2015. DOI: 10.1051/epjconf/20159307005.

38 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, "Inelastic neutron scattering cross sections for ^{76}Ge relevant to background in neutrinoless double-β decay experiments," *Phys. Rev. C*, vol. 92, p. 034 310, 3 Sep. 2015. DOI: 10.1103/PhysRevC.92.034310.

39 B. P. Crider, **E. E. Peters**, T. J. Ross, M. T. McEllistrem, F. M. Prados-Estévez, J. M. Allmond, J. R. Vanhoy, and S. W. Yates, "Inelastic neutron scattering studies of ^{76}Ge and ^{76}Se: Relevance neutrinoless double-β decay," *EPJ Web of Conferences*, vol. 93, p. 05 001, 2015. DOI: 10.1051/epjconf/20159305001.

40 J. Hartman, A. Barzilov, **E. E. Peters**, and S. W. Yates, "Measurements of response functions of EJ-299-33A plastic scintillator for fast neutrons," *Nuclear Instruments and Methods in Physics Research Section A: Accelerators, Spectrometers, Detectors and Associated Equipment*, vol. 804, pp. 137–143, 2015, ISSN: 0168-9002. DOI: https://doi.org/10.1016/j.nima.2015.09.068.

41 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. Prados-Estévez, T. J. Ross, and S. Yates, "Studies of ^{54,56}Fe neutron scattering cross sections," *EPJ Web of Conferences*, vol. 93, p. 02 002, 2015. DOI: 10.1051/epjconf/20159302002.

42 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, "Undergraduate measurements of neutron cross sections," *Physics Procedia*, vol. 66, pp. 641–648, 2015, The 23^{rd} International Conference on the Application of Accelerators in Research and Industry - CAARI 2014, ISSN: 1875-3892. DOI: https://doi.org/10.1016/j.phpro.2015.05.085.

43 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, "Collectivity of 0^+ states in ^{160}Gd," *Phys. Rev. C*, vol. 91, p. 054 317, 5 May 2015. DOI: 10.1103/PhysRevC.91.054317.

44 **E. E. Peters**, T. J. Ross, B. P. Crider, S. F. Ashley, A. Chakraborty, M. D. Hennek, A. Kumar, S. H. Liu, M. T. McEllistrem, F. M. Prados-Estévez, J. S. Thrasher, and S. W. Yates, "Inelastic neutron scattering studies of ^{132,134}Xe: Elucidating structure in a transitional region and possible interferences for $0\nu\beta\beta$ searches," *EPJ Web of Conferences*, vol. 93, p. 01 027, 2015. DOI: 10.1051/epjconf/20159301027.

45 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, ""No-spin" states and low-lying structures in ^{130}Xe and ^{136}Xe," *EPJ Web of Conferences*, vol. 93, p. 01 010, 2015. DOI: 10.1051/epjconf/20159301010.

46 J. R. Vanhoy, S. F. Hicks, A. Chakraborty, B. R. Champine, B. M. 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. J. Sigillito, D. W. Watts, and S. W. Yates, "Neutron scattering differential cross sections for ^{23}Na from 1.5 to 4.5 MeV," *Nuclear Physics A*, vol. 939, pp. 121–140, 2015, ISSN: 0375-9474. DOI: https://doi.org/10.1016/j.nuclphysa.2015.03.006.

47 J. R. Vanhoy, S. F. Hicks, B. C. Combs, B. P. Crider, A. J. French, E. A. Garza, S. L. Henderson, T. J. Howard, S. H. Liu, S. Nigam, R. L. Pecha, **E. E. Peters**, F. M. Prados-Estévez, M. T. McEllistrem, B. J. Rice, T. J. Ross, Z. C. Santonil, L. C. Sidwell, J. L. Steves, and S. W. Yates, "The neutron time-of-flight cross section program at the University of Kentucky - Adventures in analysis II," *EPJ Web of Conferences*, vol. 93, p. 02 014, 2015. DOI: 10.1051/epjconf/20159302014.

48 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, "Dipole strength distributions from HIGS experiments," *EPJ Web of Conferences*, vol. 93, p. 01 031, 2015. DOI: 10.1051/epjconf/20159301031.

49 A. Kumar, M. Balasubramanian, A. Chakraborty, B. P. Crider, S. 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, "A study of measured neutron elastic differential neutron cross sections for ^{23}Na," *J. Radioanal. Nucl. Chem.*, vol. 302, pp. 1043–1047, 2014. DOI: 10.1007/s10967-014-3535-x.

50 S. R. Lesher, C. Casarella, B. P. Crider, R. Ikeyama, I. Marsh, **E. E. Peters**, F. M. Prados-Estévez, M. K. Smith, Z. Tully, J. R. Vanhoy, A. Aprahamian, and S. W. Yates, "Inelastic neutron scattering on ^{160}Gd," *EPJ Web of Conferences*, vol. 66, p. 02 063, 2014. DOI: 10.1051/epjconf/20146602063.

51 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. Lesher, C. J. McKay, M. T. McEllistrem, S. Mukhopadhyay, J. N. Orce, M. Scheck, J. R. Vanhoy, J. L. Wood, and S. W. Yates, "Nuclear structure studies of ^{106}Pd and ^{106}Cd with the $(n, n'\gamma)$ reaction," *EPJ Web of Conferences*, vol. 66, p. 02 085, 2014. DOI: 10.1051/epjconf/20146602085.

52 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, and S. W. Yates, "Differential cross sections for neutron elastic and inelastic scattering on ^{23}Na," *EPJ Web of Conferences*, vol. 66, p. 03 091, 2014. DOI: 10.1051/epjconf/20146603091.

53 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-Estevez, S. W. Yates, and J. R. Vanhoy, "The DEuterated SCintillator array for neutron tagging - a neutron tagging array for TRIUMF-ISAC," *EPJ Web of Conferences*, vol. 66, p. 11 040, 2014. DOI: 10.1051/epjconf/20146611040.

54 S. W. Yates, **E. E. Peters**, A. Chakraborty, B. P. Crider, M. T. McEllistrem, F. M. Prados-Estévez, and J. R. Vanhoy, "Level lifetimes in ^{94}Zr from DSAM measurements following inelastic neutron scattering," *EPJ Web of Conferences*, vol. 66, p. 02 111, 2014. DOI: 10.1051/epjconf/20146602111.

55 V. Bildstein, P. E. Garrett, J. Wong, D. Bandyopadhyay, J. Bangay, L. Bianco, B. Hadinia, K. G. Leach, C. Sumithrarachchi, S. F. Ashley, B. P. Crider, M. T. McEllistrem, **E. E. Peters**, F. M. Prados-Estévez, S. W. Yates, and J. R. Vanhoy, "Comparison of deuterated and normal liquid scintillators for fast-neutron detection," *Nuclear Instruments and Methods in Physics Research Section A: Accelerators, Spectrometers, Detectors and Associated Equipment*, vol. 729, pp. 188–197, 2013, ISSN: 0168-9002. DOI: https://doi.org/10.1016/j.nima.2013.06.082.

56 A. Chakraborty, **E. E. Peters**, B. P. Crider, C. Andreoiu, P. C. Bender, D. S. Cross, G. A. Demand, A. B. Garnsworthy, P. E. Garrett, G. Hackman, B. Hadinia, S. Ketelhut, A. Kumar, K. G. Leach, M. T. McEllistrem, J. Pore, F. M. Prados-Estévez, E. T. Rand, B. Singh, E. R. Tardiff, Z.-M. Wang, J. L. Wood, and S. W. Yates, "Collective structure in ^{94}Zr and subshell effects in shape coexistence," *Phys. Rev. Lett.*, vol. 110, p. 022 504, 2 Jan. 2013. DOI: 10.1103/PhysRevLett.110.022504.

57 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, "Dipole response of ^{76}Se above 4 MeV," *Phys. Rev. C*, vol. 88, p. 064 308, 6 Dec. 2013. DOI: 10.1103/PhysRevC.88.064308.

58 S. F. Hicks, A. Chakraborty, B. Combs, B. P. Crider, L. Downes, J. Girgis, L. J. Kersting, A. Kumar, C. J. Lueck, P. J. McDonough, M. T. McEllistrem, **E. E. Peters**, F. M. Prados-Estevz, J. Schniederjan, L. Sidwell, A. J. Sigillito, J. R. Vanhoy, D. Watts, and S. W. Yates, "Elastic and inelastic neutron scattering cross sections for fission reactor applications," *AIP Conference Proceedings*, vol. 1525, no. 1, pp. 276–281, Apr. 2013, ISSN: 0094-243X. DOI: 10.1063/1.4802333. eprint: https://pubs.aip.org/aip/acp/article-pdf/1525/1/276/12019522/276_1_online.pdf.

59 **E. E. Peters**, A. Chakraborty, B. P. Crider, B. H. Davis, M. K. Gnanamani, M. T. McEllistrem, F. M. Prados-Estévez, J. R. Vanhoy, and S. W. Yates, "Level lifetimes in the stable Zr nuclei: Effects of chemical properties in Doppler-shift measurements," *Phys. Rev. C*, vol. 88, p. 024 317, 2 Aug. 2013. DOI: 10.1103/PhysRevC.88.024317.

60 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, "New decay pattern of negative-parity states at $N = \mathbf{90}$," *Phys. Rev. C*, vol. 86, p. 064 314, 6 Dec. 2012. DOI: 10.1103/PhysRevC.86.064314.

61 A. Chakraborty, J. N. Orce, S. F. Ashley, B. A. Brown, B. P. Crider, E. Elhami, M. T. McEllistrem, S. Mukhopadhyay, **E. E. Peters**, B. Singh, and S. W. Yates, "Status of vibrational structure in ^{62}Ni," *Phys. Rev. C*, vol. 83, p. 034 316, 3 Mar. 2011. DOI: 10.1103/PhysRevC.83.034316.

62 S. F. Hicks, L. J. Kersting, C. J. Lueck, P. McDonough, B. P. Crider, M. T. McEllistrem, **E. E. Peters**, and J. R. Vanhoy, "Undergraduate Measurements For Fission Reactor Applications," *AIP Conference Proceedings*, vol. 1336, no. 1, pp. 738–741, Jun. 2011, ISSN: 0094-243X. DOI: 10.1063/1.3586200. eprint: https://pubs.aip.org/aip/acp/article-pdf/1336/1/738/12040686/738_1_online.pdf.

63 S. Mukhopadhyay, M. Scheck, B. Crider, S. N. Choudry, E. Elhami, E. Peters, M. T. McEllistrem, J. N. Orce, and S. W. Yates, "Multiphonon states in $^{136}_{56}$Ba$_{80}$," *Phys. Rev. C*, vol. 78, p. 034 317, 3 Sep. 2008. DOI: 10.1103/PhysRevC.78.034317.

64 J. N. Orce, B. Crider, S. Mukhopadhyay, E. Peters, E. Elhami, M. Scheck, B. Singh, M. T. McEllistrem, and S. W. Yates, "Determination of the $2_1^+ \rightarrow 0_1^+$ transition strengths in ^{58}Ni and ^{60}Ni," *Phys. Rev. C*, vol. 77, p. 064 301, 6 Jun. 2008. DOI: 10.1103/PhysRevC.77.064301.

Non-Peer-Reviewed Conference Proceedings

1 S. W. Yates, S. Mukhopadhyay, B. P. Crider, and **E. E. Peters**, "Using fast neutrons to probe the structure of candidates for neutrinoless double-beta decay," in *Proceedings of the DAE Symp. on Nucl. Phys. **63***, 2018, pp. 31–32. URL: http://www.sympnp.org/proceedings/63/I15.pdf.

2 T. K. Eriksen, T. Kibédi, M. W. Reeda, M. de Vriesa, A. E. Stuchbery, A. Akber, J. Dowie, L. J. Evitts, A. B. Garnsworthy, M. Gerathy, G. J. Lane, A. J. Mitchell, S. Mukhopadhyay, T. Palazzo, **E. E. Peters**, A. P. D. Ramirez, J. Smallcombe, T. G. Tornyi, J. L. Wood, and S. W. Yates, "Systematic studies of $E0$ transitions in ^{54,56,58}Fe," in *Proceedings of Science, The 26th International Nuclear Physics Conference, 11-16 September, 2016, Adelaide, Australia*, 2017, pp. 31–32. URL: https://pos.sissa.it/281/069.

3. 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, "Low-lying positive-parity band structure in ^{150}Nd," in *Proceedings of the DAE Symposium on Nuclear Physics* ***59***, 2014, pp. 180–181. URL: https://inspirehep.net/literature/1504433.

4. 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, "Differential cross-section measurements at the University of Kentucky - Adventures in analysis," in *Collaborative International Evaluated Library Organisation (CIELO), Workshop Proceedings, 5-8 November 2013, Geel, Belgium, Nuclear Science, NEA/NSC/DOC 13*, 2014, pp. 85–93. URL: https://www.oecd-nea.org/jcms/pl_19552/proceedings-of-the-nemea-7/cielo-workshop-geel-belgium-5-8-november-2013?details=true.

5. A. Chakraborty, F. M. Prados-Estévez, S. N. Choudry, B. P. Crider, P. E. Garrett, W. D. Kulp, A. Kumar, M. T. McEllistrem, M. Mukhopadhyay, M. G. Mynk, J. N. Orce, **E. E. Peters**, J. L. Wood, and S. W. Yates, "Transition rates of decays from collective states in ^{150}Nd," in *Proceedings of the Fourteenth International Symposium on Capture Gamma-Ray Spectroscopy and Related Topics, World Scientific Publishing Co. Pte. Ltd.*, 2013, p. 557.

6. A. Chakraborty, F. M. Prados-Estévez, **E. E. Peters**, 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, "Mapping $E2$ strength and the status of vibrational structure in ^{106}Pd," in *Proceedings of the DAE Symp. on Nucl. Phys. 58*, 2013, pp. 92–93. URL: http://www.sympnp.org/proceedings/58/A22.pdf.

7. B. P. Crider, A. Chakraborty, A. Kumar, **E. E. Peters**, F. M. Prados-Estévez, M. T. McEllistrem, and S. W. Yates, "Nuclear structure studies of ^{76}Se and ^{76}Ge from inelastic neutron scattering," in *Proceedings of the Fourteenth International Symposium on Capture Gamma-Ray Spectroscopy and Related Topics, World Scientific Publishing Co. Pte. Ltd.*, 2013, p. 566.

8. A. Kumar, A. Chakraborty, B. P. Crider, M. T. McEllistrem, **E. E. Peters**, F. M. Prados-Estévez, and S. W. Yates, "Measurement of the absolute elastic and inelastic differential cross sections for ^{23}Na between 2 and 4 MeV," in *Proceedings of the Fourteenth International Symposium on Capture Gamma-Ray Spectroscopy and Related Topics, World Scientific Publishing Co. Pte. Ltd.*, 2013, p. 254.

9. **E. E. Peters**, A. Chakraborty, B. P. Crider, A. Kumar, F. M. Prados-Estévez, S. F. Ashley, E. Elhami, S. Mukhopadhyay, J. N. Orce, M. T. McEllistrem, and S. W. Yates, "Low-lying structure of ^{132,134}Xe from inelastic neutron scattering," in *Proceedings of the Fourteenth International Symposium on Capture Gamma-Ray Spectroscopy and Related Topics, World Scientific Publishing Co. Pte. Ltd.*, 2013, p. 221.

10. F. M. Prados-Estévez, N. Kibèdi T. Cooper, B. P. Crider, G. D. Dracoulis, R. F. Leslie, **E. E. Peters**, A. E. Stuchbery, A. P. Tonchev, V. Werner, L. T. Williams, and S. W. Yates, "Internal conversion electron study of excited states in ^{76}As," in *Proceedings of the Fourteenth International Symposium on Capture Gamma-Ray Spectroscopy and Related Topics, World Scientific Publishing Co. Pte. Ltd.*, 2013, p. 575.

11. V. Werner, N. M. Cooper, P. M. Goddard, M. K. Smith, D. Savran, S. W. Yates, B. P. Crider, **E. E. Peters**, A. Chakraborty, A. P. Tonchev, G. Rusev, W. Tornow, K. H. Kelley, E. Kwan, R. Raut, F. Reichel, N. Pietralla, C. Romig, M. Scheck, M. Fritzsche, J. Beller, M. Zweidinger, and K. Sonnabend, "Dipole response of ^{76}Se up to 9 MeV," in *Proceedings of the Fourteenth International Symposium on Capture Gamma-Ray Spectroscopy and Related Topics, World Scientific Publishing Co. Pte. Ltd.*, 2013, p. 421.

12. M. Scheck, S. Mukhopadhyay, B. P. Crider, S. N. Choudry, E. Elahmi, **E. E. Peters**, M. T. McEllistrem, J. N. Orce, and S. W. Yates, "Low-lying collective states in ^{136}Ba," in *AIP Conference Proceedings (Capture Gamma-Ray Spectroscopy and Related Topics) vol 1090*, 2009, pp. 253–257.

Invited Presentations

- “Elucidating the Ge nuclei with the shell model.” Symposium in Honor of the 75^{th} Anniversary of the Nuclear Shell Model and Maria Goeppert-Mayer, Argonne National Laboratory, July 19-21, 2024.
- “The nuclear structure of ^{74}Ge from inelastic neutron scattering.” 17^{th} International Symposium on Capture Gamma-Ray Spectroscopy and Related Topics, Grenoble, France, July 2023.
- “Nuclear structure for neutrinoless double-beta decay.” APS April Meeting, virtual conference, April 19, 2021.
- “Resolving an anomaly: The nuclear structure of ^{94}Zr.” University of Kentucky Department of Physics and Astronomy nuclear group seminar, September 27, 2018.
- “Resolving an anomaly: The nuclear structure of ^{94}Zr.” Ohio University Institute of Nuclear and Particle Physics seminar, September 11, 2018.
- “A Tale of Two Structures: Nuclear and Material.” Mississippi State University Department of Physics and Astronomy colloquium, November 20, 2017.
- “The transitional structure of ^{132,134}Xe.” ISTROS 2015, Bratislava, Slovakia, May 1-6, 2015.
- “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.
- “Chemical Effects in Femtosecond Nuclear Half-life Measurements.” University of the Cumberlands, Department of Chemistry, November 8, 2013.
- “Nuclear level lifetimes in ^{94}Zr: From anomaly to resolution.” Los Alamos National Laboratory, Division of Actinide Analytical Chemistry, July 18, 2013.

Contributed Presentations

- "Neutron Facilities at the University of Kentucky Accelerator Laboratory." E. E. Peters, Neutron and Gamma Beams Working Group at the 2024 Low-Energy Community Meeting, University of Tennessee, Knoxville, TN, oral
- "Reinventing Recitation" E. E. Peters, Biennial Conference on Chemical Education 2024, University of Kentucky, Lexington, KY, oral
- "Probing nuclei with fast neutrons at the University of Kentucky Accelerator Laboratory: Data for pure and applied science." E. E. Peters, Neutron and Gamma Beams Working Group at the 2023 Low-Energy Community Meeting, FRIB, East Lansing, MI, virtual, oral
- "Probing nuclei with fast neutrons at the University of Kentucky Accelerator Laboratory: Data for pure and applied science." E. E. Peters, Opportunities for Neutron Induced Reaction Studies meeting in planning for the NSAC Long Range Plan, 2022, virtual, oral
- “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
- “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
- “Level lifetimes and the nuclear structure of ^{134,136}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

- "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. 16^{th} International Symposium on Capture Gamma-ray Spectroscopy and Related Topics 2017, Shanghai, China, oral
- "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
- "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. Lesher, 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
- "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
- "Nuclear Photography." E.E. Peters. University of Kentucky Postdoctoral Symposium 2015, Lexington, KY, oral
- "The structure of ^{132,134}Xe from inelastic neutron scattering measurements." E.E. Peters, T.J. Ross, A. Chakraborty, B.P. Crider, A. Kumar, M.T. McEllistrem, F.M. Prados-Estévez, S.W. Yates. 2015 Gordon Research Conference on Nuclear Chemistry, New London, NH, poster
- "Inelastic neutron scattering studies of ^{132,134}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. 15^{th} International Symposium on Capture Gamma-ray Spectroscopy and Related Topics 2014, Dresden, Germany, oral
- "The nuclear structure of ^{132,134}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-Estevez, Timothy J. Ross, Steven W. Yates. ACS National Meeting August 2014, San Francisco, CA, oral
- "The University of Kentucky Accelerator Laboratory." E. E. Peters. ARUNA Workshop 2014, University of Notre Dame, Notre Dame, IN, oral
- "Level lifetimes in ^{132,134}Xe from inelastic neutron scattering." E. E. Peters, A. Chakraborty, B. P. Crider, A. Kumar, F. M. Prados-Estévez, S. F. Ashley, M. T. McEllistrem, S. W. Yates. APS Fall Meeting of the Division of Nuclear Physics 2013, Newport News, VA, oral
- "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. 245^{th} ACS National Meeting April 2013, New Orleans, LA, oral
- "The Nuclear Structure of ^{94}Zr: From anomaly to resolution." Erin E. Peters. University of Kentucky Department of Chemistry seminar, December 7, 2012, oral
- "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
- "Low-Lying Structure of ^{132,134}Xe from Inelastic Neutron Scattering." E. E. Peters, A. Chakraborty, B. P. Crider, A. Kumar, F. M. Prados-Estévez, S. F. Ashley, E. Elhami, S. Mukhopadhyay, J. N. Orce, M. T. McEllistrem, and S. W. Yates. Nuclear Structure 2012, Argonne National Laboratory, IL, poster
- "Low-lying Structure of ^{132,134}Xe from Inelastic Neutron Scattering." E. E. Peters, A. Chakraborty, B. P. Crider, A. Kumar, F. M. Prados-Estévez, S. F. Ashley, E. Elhami, S. Mukhopadhyay, J. N. Orce, M. T. McEllistrem, S. W. Yates. 14^{th} International Symposium on Capture Gamma-ray Spectroscopy and Related Topics 2011, Guelph, Ontario, Canada, oral

- "Low-lying Structure of ^{132}Xe from Inelastic Neutron Scattering." E. E. Peters, A. Chakraborty, B. P. Crider, A. Kumar, F. M. Prados-Estévez, S. F. Ashley, M. T. McEllistrem, S. W. Yates. APS Fall Meeting of the Division of Nuclear Physics 2011, East Lansing, MI, oral
- "Low-lying Structure of ^{134}Xe from Inelastic Neutron Scattering." E. E. Peters, B. P. Crider, S. F. Ashley, M. T. McEllistrem, S. W. Yates. APS Fall Meeting of the Division of Nuclear Physics 2010, Santa Fe, NM, oral
- "Low-lying structure of ^{134}Xe." Erin E. Peters, Benjamin Crider, Stephen F. Ashley, and Steven W. Yates. 238^{th} ACS National Meeting August 2009, Washington, D.C., oral

Students Mentored

Lopez, Blake H. Tomas — Undergraduate; summer 2024; NSF-funded project titled "Lifetimes of Excited States in ^{72}Ge from Inelastic Neutron Scattering"

Martin, Logan D. — Undergraduate; summer-fall 2024; CHE395 course credit for project titled "Inelastic Neutron Scattering Studies of ^{72}Ge"

Awards and Achievements

2024 — **Ronald T. Pflaum Outstanding Chapter Advisor Award, Alpha Chi Sigma**, Awarded nationally to one chapter advisor each biennium in recognition of ongoing contributions to the success of a collegiate chapter and continuing service to the fraternity

2014 — **Outstanding Research Award, University of Kentucky, Department of Chemistry**, Awarded to one graduate student per academic year based on research accomplishments.

2011 & 2009 — **100% Plus Award, University of Kentucky, Department of Chemistry**, 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.

2006 — **Outstanding Chemistry Senior Award, University of the Cumberlands**

2005-2006 — **Algernon Sydney Sullivan Foundation scholarship**

2002-2006 — **University of the Cumberlands Presidential scholarship**

2005 — **A.T. Siler Memorial Award, University of the Cumberlands**, 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)

2006 — **Kappa Mu Epsilon, Mathematics honor society**

Professional Activities

ACS — American Chemical Society member, 2005-present

ACS-NUCL — American Chemical Society Division of Nuclear Chemistry and Technology (NUCL) member, 2007-present

Member of the Website Committee of the NUCL Division, 2014-2019

Professional Activities (continued)

ACS-Lexington Section	Treasurer of the Lexington Section of the ACS, 2020-2022
	Chair-elect of the Lexington Section of the ACS, 2022
	Chair of the Lexington Section of the ACS, 2023
	Immediate Past Chair of the Lexington Section of the ACS, 2024
APS	American Physical Society, member since 2007
	Nuclear Division of the American Physical Society, member since 2007
Reviewer	Reviewer for Physical Review C, August 2022-present
	Reviewer for US National Science Foundation MRI proposal, May 2019
ARUNA	Association for Research at University Nuclear Accelerators (ARUNA), member since 2013
	ARUNA Laboratory Directors's committee member, Jan. 2024 – present
$AX\Sigma$	Alpha Chi Sigma, professional chemistry fraternity, brother since 2015
	Chapter Advisor of the Alpha Gamma Chapter, April 2017 – present
	Leader of the Bluegrass Professional Group, June 2018 – 2020

Service

Committees	University of Kentucky Radiation Safety Committee, member appointed by the University President, July 24, 2024 - June 30, 2027
	University of Kentucky Chemistry Alumni Board, member 2014-present
	Departmental Alumni Relations Committee, University of Kentucky Department of Chemistry, member 2022-2024
Outreach	University of Kentucky Dept. of Chemistry Outreach Coordinator, Aug. 2024-present
	Served as a judge for numerous undergraduate poster competitions and elementary school science fairs
	Organized and participated in demonstration shows at local elementary, middle, and high schools, as well as at UK for National Chemistry Week, "science nights," "STEM days," etc.

References

Available on Request