

September 2024

# Kyle Brown

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## Education

- 2012-2016 **PhD, Nuclear Chemistry**, Washington University in St. Louis.  
2008-2012 **Bachelor of Science in Chemistry**, Indiana University, with High Distinction, with Departmental Honors.

## Masters Thesis

## Experience

- 2024-Present **Associate Professor Of Chemistry**, FACILITY FOR RARE ISOTOPE BEAMS, Michigan State University.  
2019-2024 **Assistant Professor Of Chemistry**, FACILITY FOR RARE ISOTOPE BEAMS, Michigan State University.  
2016-2019 **Research Associate**, NATIONAL SUPERCONDUCTING CYCLOTRON LABORATORY, Michigan State University.  
2012-2016 **Graduate Research Assistant**, WASHINGTON UNIVERSITY IN ST. LOUIS.  
2009-2012 **Undergraduate Research Assistant**, INDIANA UNIVERSITY.

## Honors and Awards

- 2012 ACS Charles D. Coryell Award  
2013 GAANN Fellowship  
2014-2016 NSF Graduate Research Fellowship  
2016-2019 P. Gregers Hansen Postdoctoral Fellowship  
2017 DNP Dissertation Award

## Grants

### Current Grants

- 2021-2024 **Intertwining Nuclear Structure and Reactions with Exotic Nuclei**, DOE, DE-SC0021938, PI: Kyle Brown.  
2023-2026 **WoU-MMA: Studying Neutron Stars through the Lens of Nuclear Reactions**, NSF, PHY-2309923, PI: Kyle Brown.

- 2021–2026 **TRAIN-MI Program: High Energy Physics Instrumentation Traineeship in Michigan**, DOE, DE-SC0022299, PI:Kendall Mahn, co-PI:Kyle Brown, Wade Fisher, Nathan Whitehorn.

#### Past Grants

- 2019 **Nuclear Chemistry GRS/GRC - Exploring Simple Structural Patterns and the Dynamics of Nuclei at Colby Sawyer College in New Hampshire June 16-21, 2019, NSF.**

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#### Invited Presentations

- Nov 2023 APS JPS DNP 2023, "Looking towards the high-density EoS at FRIB", Waikoloa, Hawaii.
- Jul 2023 NPAA SEMINAR, "Accessing Nuclear Structure Beyond the Proton Dripline", The Australia National University, Canberra, Australia.
- Jun 2023 COMEX7, "The Facility for Rare Isotope Beams: its first year and future", Cantania, Italy.
- Jun 2023 GANIL SCIENTIFIC SEMINAR, "Accessing Nuclear Structure Beyond the Proton Dripline ", GANIL.
- Sep 2022 LOW-ENERGY NUCLEAR SCIENCE LONG RANGE PLAN TOWN HALL, "Future (Terrestrial) experimental studies of the Nuclear Equation of State", Argonne National Laboratory.
- Mar 2022 ASTRONOMY AND PHYSICS DEPARTMENT COLLOQUIUM, "Accessing Nuclear Structure Beyond the Proton Dripline", St. Mary's University, Halifax, Nova Scotia, Canada.
- Feb 2022 NUCLEAR SEMINAR, "Accessing Nuclear Structure Beyond the Proton Dripline", Univeristy of Massachusetts, Lowel, Massachusetts.
- Sep 2021 ANL PHYSICS DIVISION SEMINAR, "Nuclear structure at the Edge: Proton decay and the invariant-mass Method", Argonne National Laboratory.
- Apr 2020 REACTIONS SEMINAR SERIES, "Constraining the momentum dependence of the Nuclear Equation of State", Virtual.
- Sep 2019 ECT\* OPEN QUANTUM SYSTEMS, "Changing decay mode with excitation energy for two-proton decay", Trento, Italy.
- May 2019 JINA FRONTIERS, "Accessing nuclear astrophysics through nuclear experiments", NSCL, East Lansing, MI.
- Aug 2018 NUCLEAR SEMINAR, "Constraining neutron-star mergers through heavy-ion collisions", Washington University in St. Louis, St. Louis, MO.
- Oct 2017 DNP MEETING, "Nuclear Structure at the edge: Proton decay and the invariant-mass method", Pittsburg, PA, Dissertation Award Prize Talk.
- Sep 2017 NUSYM 2017, "Constraining the effective-mass dependence of the Nuclear Symmetry Energy", GANIL, Caen, France.
- Jun 2017 NUCLEAR CHEMISTRY GORDON RESEARCH CONFERENCE, "Measuring Two-Proton Decay with the Invariant-Mass Method", New London, NH.

- Jan 2017 APS APRIL MEETING 2017, "Proton-decaying, light nuclei accessed via the invariant-mass method", Washington D.C..
- Jun 2016 NUCLEAR SCIENCE SEMINAR, "Continuum nuclear structure accessed via the invariant-mass method", NSCL, East Lansing, MI.
- May 2016 CYCLOTRON COLLOQUIUM, "Continuum nuclear structure accessed via the invariant-mass method", Texas A&M, College Station, TX.
- Mar 2016 NUCLEAR PHYSICS SEMINAR, "Continuum nuclear structure accessed via the invariant-mass method", Indiana University, Bloomington, IN.
- Also many contributed talks at conferences and workshops.

## Publications (Last 5 years)

Total Publications(50) High-Impact (12)

- [1] S. Hudan, H. Desilets, Rohit Kumar, R. T. deSouza, C. Ciampi, A. Chbihi, and K. W. Brown. "Influence of additional neutrons on the fusion cross section beyond the  $N = 8$  shell". In: *Phys. Rev. C* 109 (1 Jan. 2024), p. L011601. DOI: 10.1103/PhysRevC.109.L011601. URL: <https://link.aps.org/doi/10.1103/PhysRevC.109.L011601>.
- [2] Agnieszka Sorensen et al. "Dense nuclear matter equation of state from heavy-ion collisions". In: *Progress in Particle and Nuclear Physics* 134 (2024), p. 104080. ISSN: 0146-6410. DOI: <https://doi.org/10.1016/j.ppnp.2023.104080>. URL: <https://www.sciencedirect.com/science/article/pii/S0146641023000613>.
- [3] T. Beck, A. Gade, B. A. Brown, J. A. Tostevin, D. Weisshaar, D. Bazin, K. W. Brown, R. J. Charity, P. J. Farris, S. A. Gillespie, A. M. Hill, J. Li, B. Longfellow, W. Reviol, and D. Rhodes. "Probing proton cross-shell excitations through the two-neutron removal from  $^{38}\text{Ca}$ ". In: *Phys. Rev. C* 108 (6 Dec. 2023), p. L061301. DOI: 10.1103/PhysRevC.108.L061301. URL: <https://link.aps.org/doi/10.1103/PhysRevC.108.L061301>.
- [4] R. J. Charity, K. Brown, T. Webb, and L. G. Sobotka. "Invariant-mass spectroscopy of  $^{10}\text{B}$ ,  $^{11}\text{C}$ ,  $^{14}\text{F}$ ,  $^{16}\text{F}$ , and  $^{18}\text{Na}$ ". In: *Phys. Rev. C* 107 (5 May 2023), p. 054301. DOI: 10.1103/PhysRevC.107.054301. URL: <https://link.aps.org/doi/10.1103/PhysRevC.107.054301>.
- [5] R. J. Charity, J. Wylie, S. M. Wang, T. B. Webb, K. W. Brown, G. Cerizza, Z. Chajecki, J. M. Elson, J. Estee, D. E. M. Hoff, S. A. Kuvim, W. G. Lynch, J. Manfredi, N. Michel, D. G. McNeel, P. Morfouace, W. Nazarewicz, C. D. Pruitt, C. Santamaria, S. Sweany, J. Smith, L. G. Sobotka, M. B. Tsang, and A. H. Wuosmaa. "Strong Evidence for  $^9\text{N}$  and the Limits of Existence of Atomic Nuclei". In: *Phys. Rev. Lett.* 131 (17 Oct. 2023), p. 172501. DOI: 10.1103/PhysRevLett.131.172501. URL: <https://link.aps.org/doi/10.1103/PhysRevLett.131.172501>.
- [6] N. Dronchi, D. Weisshaar, B. A. Brown, A. Gade, R. J. Charity, L. G. Sobotka, K. W. Brown, W. Reviol, D. Bazin, P. J. Farris, A. M. Hill, J. Li, B. Longfellow, D. Rhodes, S. N. Paneru, S. A. Gillespie, A. Anthony, E. Rubino, and S. Biswas. "Measurement of the  $B(E2 \uparrow)$  strengths of  $^{36}\text{Ca}$  and  $^{38}\text{Ca}$ ". In: *Phys. Rev. C* 107 (3 Mar. 2023), p. 034306. DOI: 10.1103/PhysRevC.107.034306. URL: <https://link.aps.org/doi/10.1103/PhysRevC.107.034306>.

- [7] S.N. Paneru, K.W. Brown, F.C.E Teh, K. Zhu, M.B. Tsang, D. Dell'Aquila, Z. Chajecki, W.G. Lynch, S. Sweany, C.Y. Tsang, A.K. Anthony, J. Barney, J. Estee, I. Gasparic, G. Jhang, O.B. Khanal, J. Manfredi, C.Y. Niu, R.S. Wang, and J.C. Zamora. "Determination of energy-dependent neutron backgrounds using shadow bars". In: *Nuclear Instruments and Methods in Physics Research Section A: Accelerators, Spectrometers, Detectors and Associated Equipment* 1053 (2023), p. 168341. ISSN: 0168-9002. DOI: <https://doi.org/10.1016/j.nima.2023.168341>. URL: <https://www.sciencedirect.com/science/article/pii/S0168900223003315>.
- [8] A. K. Anthony, C. Y. Niu, R. S. Wang, J. Wieske, K. W. Brown, Z. Chajecki, W. G. Lynch, Y. Ayyad, J. Barney, T. Baumann, D. Bazin, S. Beceiro-Novo, J. Boza, J. Chen, K. J. Cook, M. Cortesi, T. Ginter, W. Mittig, A. Pype, M. K. Smith, C. Soto, C. Sumithrarachchi, J. Swaim, S. Sweany, F. C. E. Teh, C. Y. Tsang, M. B. Tsang, N. Watwood, and A. H. Wuosmaa. "Beam particle identification and tagging of incompletely stripped heavy beams with HEIST". In: *Review of Scientific Instruments* 93.1 (Jan. 2022), p. 013306. ISSN: 0034-6748. DOI: 10.1063/5.0068180. eprint: <https://pubs.aip.org/aip/rsi/article-pdf/doi/10.1063/5.0068180/16576488/013306\1\online.pdf>. URL: <https://doi.org/10.1063/5.0068180>.
- [9] R. J. Charity, L. G. Sobotka, T. B. Webb, and K. W. Brown. "Two-proton decay from  $\alpha$ -cluster states in  $^{10}\text{C}$  and  $^{11}\text{N}$ ". In: *Phys. Rev. C* 105 (1 Jan. 2022), p. 014314. DOI: 10.1103/PhysRevC.105.014314. URL: <https://link.aps.org/doi/10.1103/PhysRevC.105.014314>.
- [10] A. Gade, B. A. Brown, D. Weisshaar, D. Bazin, K. W. Brown, R. J. Charity, P. Farris, A. M. Hill, J. Li, B. Longfellow, D. Rhodes, W. Reviol, and J. A. Tostevin. "Dissipative Reactions with Intermediate-Energy Beams: A Novel Approach to Populate Complex-Structure States in Rare Isotopes". In: *Phys. Rev. Lett.* 129 (24 Dec. 2022), p. 242501. DOI: 10.1103/PhysRevLett.129.242501. URL: <https://link.aps.org/doi/10.1103/PhysRevLett.129.242501>.
- [11] A. Gade, D. Weisshaar, B. A. Brown, D. Bazin, K. W. Brown, R. J. Charity, P. Farris, A. M. Hill, J. Li, B. Longfellow, D. Rhodes, W. Reviol, and J. A. Tostevin. "Exploiting dissipative reactions to perform in-beam  $\gamma$ -ray spectroscopy of the neutron-deficient isotopes  $^{38,39}\text{Ca}$ ". In: *Phys. Rev. C* 106 (6 Dec. 2022), p. 064303. DOI: 10.1103/PhysRevC.106.064303. URL: <https://link.aps.org/doi/10.1103/PhysRevC.106.064303>.
- [12] S. A. Gillespie, K. W. Brown, R. J. Charity, L. G. Sobotka, A. K. Anthony, J. Barney, A. Bonaccorso, B. A. Brown, J. Crosby, D. Dell'Aquila, J. Elson, J. Estee, A. Gade, M. Ghazali, G. Jhang, Y. Jin, B. Longfellow, W. G. Lynch, J. Pereira, M. Spieker, S. Sweany, F. C. E. Teh, A. Thomas, M. B. Tsang, C. Y. Tsang, D. Weisshaar, H. Y. Wu, and K. Zhu. "Proton decay spectroscopy of  $^{28}\text{S}$  and  $^{30}\text{Cl}$ ". In: *Phys. Rev. C* 105 (4 Apr. 2022), p. 044321. DOI: 10.1103/PhysRevC.105.044321. URL: <https://link.aps.org/doi/10.1103/PhysRevC.105.044321>.
- [13] C.R. Hoffman, T.L. Tang, M. Avila, Y. Ayyad, K.W. Brown, J. Chen, K.A. Chipps, H. Jayatissa, B.P. Kay, C. Müller-Gatermann, H.J. Ong, J. Song, and G.L. Wilson. "In-flight production of an isomeric beam of  $^{16}\text{N}$ ". In: *Nuclear Instruments and Methods in Physics Research Section A: Accelerators, Spectrometers, Detectors and Associated Equipment* 1032 (2022), p. 166612. ISSN: 0168-9002. DOI: <https://doi.org/10.1016/j.nima.2022.166612>. URL: <https://www.sciencedirect.com/science/article/pii/S0168900222001905>.

- [14] J. E. Johnstone, Varinderjit Singh, R. Giri, S. Hudan, J. Vadas, R. T. deSouza, D. Ackermann, A. Chbihi, Q. Houdille, A. Abbott, C. Balhoff, A. Hannaman, A. B. McIntosh, M. Sorensen, Z. Tobin, A. Wakhle, S. J. Yennello, M. A. Famiano, K. W. Brown, C. Santamaria, J. Lubian, H. O. Soler, and B. V. Carlson. "Proton and neutron exchange as a prelude to fusion at near-barrier energies". In: *Phys. Rev. C* 106 (1 July 2022), p. L011603. DOI: 10.1103/PhysRevC.106.L011603. URL: <https://link.aps.org/doi/10.1103/PhysRevC.106.L011603>.
- [15] T. L. Tang, C. R. Hoffman, B. P. Kay, I. A. Tolstukhin, S. Almaraz-Calderon, B. W. Asher, M. L. Avila, Y. Ayyad, K. W. Brown, D. Bazin, J. Chen, K. A. Chipps, P. A. Copp, M. Hall, H. Jayatissa, H. J. Ong, D. Santiago-Gonzalez, D. K. Sharp, J. Song, S. Stolze, G. L. Wilson, and J. Wu. "Experimental study of the isomeric state in  $^{16}\text{N}$  using the  $^{16}\text{N}^{g,m}(d, ^3\text{He})$  reaction". In: *Phys. Rev. C* 105 (6 June 2022), p. 064307. DOI: 10.1103/PhysRevC.105.064307. URL: <https://link.aps.org/doi/10.1103/PhysRevC.105.064307>.
- [16] R. J. Charity, T. B. Webb, J. M. Elson, D. E. M. Hoff, C. D. Pruitt, L. G. Sobotka, K. W. Brown, G. Cerizza, J. Estee, W. G. Lynch, J. Manfredi, P. Morfouace, C. Santamaria, S. Sweany, C. Y. Tsang, M. B. Tsang, Y. Zhang, K. Zhu, S. A. Kuvin, D. McNeel, J. Smith, A. H. Wuosmaa, and Z. Chajecki. "Observation of the Exotic Isotope  $^{13}\text{F}$  Located Four Neutrons beyond the Proton Drip Line". In: *Phys. Rev. Lett.* 126 (13 Mar. 2021), p. 132501. DOI: 10.1103/PhysRevLett.126.132501. URL: <https://link.aps.org/doi/10.1103/PhysRevLett.126.132501>.
- [17] R. J. Charity, T. B. Webb, J. M. Elson, D. E. M. Hoff, C. D. Pruitt, L. G. Sobotka, P. Navrátil, G. Hupin, K. Kravvaris, S. Quaglioni, K. W. Brown, G. Cerizza, J. Estee, W. G. Lynch, J. Manfredi, P. Morfouace, C. Santamaria, S. Sweany, M. B. Tsang, T. Tsang, K. Zhu, S. A. Kuvin, D. McNeel, J. Smith, A. H. Wuosmaa, and Z. Chajecki. "Using spin alignment of inelastically excited nuclei in fast beams to assign spins: The spectroscopy of  $^{13}\text{O}$  as a test case". In: *Phys. Rev. C* 104 (2 Aug. 2021), p. 024325. DOI: 10.1103/PhysRevC.104.024325. URL: <https://link.aps.org/doi/10.1103/PhysRevC.104.024325>.
- [18] R. J. Charity, T. B. Webb, L. G. Sobotka, and K. W. Brown. "Spectroscopy of  $^{10}\text{N}$  with the invariant-mass method". In: *Phys. Rev. C* 104 (5 Nov. 2021), p. 054307. DOI: 10.1103/PhysRevC.104.054307. URL: <https://link.aps.org/doi/10.1103/PhysRevC.104.054307>.
- [19] Y. Jin, C. Y. Niu, K. W. Brown, Z. H. Li, H. Hua, A. K. Anthony, J. Barney, R. J. Charity, J. Crosby, D. Dell'Aquila, J. M. Elson, J. Estee, M. Ghazali, G. Jhang, J. G. Li, W. G. Lynch, N. Michel, L. G. Sobotka, S. Sweany, F. C. E. Teh, A. Thomas, C. Y. Tsang, M. B. Tsang, S. M. Wang, H. Y. Wu, C. X. Yuan, and K. Zhu. "First Observation of the Four-Proton Unbound Nucleus  $^{18}\text{Mg}$ ". In: *Phys. Rev. Lett.* 127 (26 Dec. 2021), p. 262502. DOI: 10.1103/PhysRevLett.127.262502. URL: <https://link.aps.org/doi/10.1103/PhysRevLett.127.262502>.
- [20] B. Longfellow, D. Weisshaar, A. Gade, B. A. Brown, D. Bazin, K. W. Brown, B. Elman, J. Pereira, D. Rhodes, and M. Spieker. "Quadrupole collectivity in the neutron-rich sulfur isotopes  $^{38,40,42,44}\text{S}$ ". In: *Phys. Rev. C* 103 (5 May 2021), p. 054309. DOI: 10.1103/PhysRevC.103.054309. URL: <https://link.aps.org/doi/10.1103/PhysRevC.103.054309>.
- [21] J. Manfredi, J. Lee, A. M. Rogers, M. B. Tsang, W. G. Lynch, C. Anderson, J. Barney, K. W. Brown, B. Brophy, G. Cerizza, Z. Chajecki, G. Chen, J. Elson, J. Estee, H. Iwasaki, C. Langer, Z. Li, C. Loelius, C. Y. Niu, C. Pruitt, H. Setiawan, R. Showalter, K. Smith, L. G.

- Sobotka, S. Sweany, S. Tangwancharoen, J. R. Winkelbauer, Z. Xiao, and Z. Xu. "Quenching of single-particle strengths in direct reactions". In: *Phys. Rev. C* 104 (2 Aug. 2021), p. 024608. DOI: 10.1103/PhysRevC.104.024608. URL: <https://link.aps.org/doi/10.1103/PhysRevC.104.024608>.
- [22] Varinderjit Singh, J. E. Johnstone, R. Giri, S. Hudan, J. Vadas, R. T. deSouza, D. Ackermann, A. Chbihi, Q. Houdille, A. Abbott, C. Balhoff, A. Hannaman, A. B. McIntosh, M. Sorensen, Z. Tobin, A. Wakhle, S. J. Yennello, M. A. Famiano, K. W. Brown, C. Santamaria, J. Lubian, H. O. Soler, and B. V. Carlson. "Impact of shell structure on the fusion of neutron-rich mid-mass nuclei". In: *Phys. Rev. C* 104 (4 Oct. 2021), p. L041601. DOI: 10.1103/PhysRevC.104.L041601. URL: <https://link.aps.org/doi/10.1103/PhysRevC.104.L041601>.
- [23] F.C.E. Teh, J.-W. Lee, K. Zhu, K.W. Brown, Z. Chajecki, W.G. Lynch, M.B. Tsang, A. Anthony, J. Barney, D. Dell'Aquila, J. Estee, B. Hong, G. Jhang, O.B. Khanal, Y.J. Kim, H.S. Lee, J.W. Lee, J. Manfredi, S.H. Nam, C.Y. Niu, J.H. Park, S. Sweany, C.Y. Tsang, R. Wang, and H. Wu. "Value-assigned pulse shape discrimination for neutron detectors". In: *IEEE Transactions on Nuclear Science* (2021), pp. 1–1. DOI: 10.1109/TNS.2021.3091126.
- [24] A. Gade, D. Weisshaar, B.A. Brown, J.A. Tostevin, D. Bazin, K. Brown, R.J. Charity, P.J. Farris, A.M. Hill, J. Li, B. Longfellow, W. Reviol, and D. Rhodes. "In-beam  $\gamma$ -ray spectroscopy at the proton dripline:  $^{40}\text{Sc}$ ". In: *Physics Letters B* 808 (2020), p. 135637. ISSN: 0370-2693. DOI: <https://doi.org/10.1016/j.physletb.2020.135637>. URL: <https://www.sciencedirect.com/science/article/pii/S0370269320304408>.
- [25] B. Longfellow, D. Weisshaar, A. Gade, B. A. Brown, D. Bazin, K. W. Brown, B. Elman, J. Pereira, D. Rhodes, and M. Spieker. "Shape Changes in the  $N = 28$  Island of Inversion: Collective Structures Built on Configuration-Coexisting States in  $^{43}\text{S}$ ". In: *Phys. Rev. Lett.* 125 (23 Dec. 2020), p. 232501. DOI: 10.1103/PhysRevLett.125.232501. URL: <https://link.aps.org/doi/10.1103/PhysRevLett.125.232501>.
- [26] C. D. Pruitt, R. J. Charity, L. G. Sobotka, J. M. Elson, D. E. M. Hoff, K. W. Brown, M. C. Atkinson, W. H. Dickhoff, H. Y. Lee, M. Devlin, N. Fotiades, and S. Mosby. "Isotopically resolved neutron total cross sections at intermediate energies". In: *Phys. Rev. C* 102 (3 Sept. 2020), p. 034601. DOI: 10.1103/PhysRevC.102.034601. URL: <https://link.aps.org/doi/10.1103/PhysRevC.102.034601>.
- [27] T. B. Webb, R. J. Charity, J. M. Elson, D. E. M. Hoff, C. D. Pruitt, L. G. Sobotka, K. W. Brown, J. Barney, G. Cerizza, J. Estee, W. G. Lynch, J. Manfredi, P. Morfouace, C. Santamaria, S. Sweany, M. B. Tsang, T. Tsang, Y. Zhang, K. Zhu, S. A. Kuvin, D. McNeel, J. Smith, A. H. Wuosmaa, and Z. Chajecki. "Invariant-mass spectrum of  $^{11}\text{O}$ ". In: *Phys. Rev. C* 101 (4 Apr. 2020), p. 044317. DOI: 10.1103/PhysRevC.101.044317. URL: <https://link.aps.org/doi/10.1103/PhysRevC.101.044317>.
- [28] K. Zhu, M.B. Tsang, D. Dell'Aquila, K.W. Brown, Z. Chajecki, W.G. Lynch, S. Sweany, F.C.E. Teh, C.Y. Tsang, C. Anderson, A. Anthony, J. Barney, J. Crosby, J. Estee, I. Gasparic, G. Jhang, O.B. Khanal, S. Kodali, J. Manfredi, C.Y. Niu, and R.S. Wang. "Calibration of large neutron detection arrays using cosmic rays". In: *Nuclear Instruments and Methods in Physics Research Section A: Accelerators, Spectrometers, Detectors and Associated Equipment* 967 (2020), p. 163826. ISSN: 0168-9002. DOI: <https://doi.org/10.1016/j.nima.2020.163826>. URL: <https://www.sciencedirect.com/science/article/pii/S0168900220303478>.

- [29] R. J. Charity, K. W. Brown, J. Okołowicz, M. Płoszajczak, J. M. Elson, W. Reviol, L. G. Sobotka, W. W. Buhro, Z. Chajecki, W. G. Lynch, J. Manfredi, R. Shane, R. H. Showalter, M. B. Tsang, D. Weisshaar, J. R. Winkelbauer, S. Bedoor, and A. H. Wuosmaa. "Invariant-mass spectroscopy of  $^{14}\text{O}$  excited states". In: *Phys. Rev. C* 100 (6 Dec. 2019), p. 064305. DOI: 10.1103/PhysRevC.100.064305. URL: <https://link.aps.org/doi/10.1103/PhysRevC.100.064305>.
- [30] T. B. Webb, R. J. Charity, J. M. Elson, D. E. M. Hoff, C. D. Pruitt, L. G. Sobotka, K. W. Brown, J. Barney, G. Cerizza, J. Estee, G. Jhang, W. G. Lynch, J. Manfredi, P. Morfouace, C. Santamaria, S. Sweany, M. B. Tsang, T. Tsang, S. M. Wang, Y. Zhang, K. Zhu, S. A. Kuvin, D. McNeel, J. Smith, A. H. Wuosmaa, and Z. Chajecki. "Particle decays of levels in  $^{11,12}\text{N}$  and  $^{12}\text{O}$  investigated with the invariant-mass method". In: *Phys. Rev. C* 100 (2 Aug. 2019), p. 024306. DOI: 10.1103/PhysRevC.100.024306. URL: <https://link.aps.org/doi/10.1103/PhysRevC.100.024306>.