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EDUCATION

- Ph.D., Chemistry, University of California, Berkeley, November 2004
Research Advisor: Darleane C. Hoffman
Thesis Title: *Development of Odd-Z-Projectile Reactions for Transactinide Element Synthesis*
- B.S., Chemistry (with Honors), Vanderbilt University, Nashville, Tennessee, May 1999 (Magna Cum Laude)
Research Advisor: Sandra J. Rosenthal
Thesis Title: *Surface Studies and Size-Independent Extinction Coefficients of CdSe Nanocrystals*

EXPERIENCE

- 2018-present Associate Professor, Department of Chemistry, Texas A&M University (College Station, Texas, USA)
Research focuses on the study of nuclear reactions, chemical properties of heavy and superheavy elements, and nuclear forensics.
- 2016-2018 Associate Professor, College of Science, Texas A&M University (College Station, Texas, USA)
Research focuses on the study of nuclear reactions, chemical properties of heavy and superheavy elements, and nuclear forensics.
- 2008-2016 Assistant Professor, College of Science, Texas A&M University (College Station, Texas, USA)
Developed a new program at the Texas A&M University Cyclotron Institute to study the production, decay, and chemistry of the heaviest elements. Research focused on the survival of excited, spherical nuclei; developing chemical systems that could be applied superheavy elements; and nuclear forensics.
- 2006-2008 Visiting Research Associate, National Superconducting Cyclotron Laboratory, Michigan State University (East Lansing, Michigan, USA); David J. Morrissey and Bradley M. Sherrill, Advisors
Developed techniques for the production of new secondary radioactive beams, and for the stopping and collection of relativistic fragments.
- 2004-2006 Associate Specialist, Level III, Department of Chemistry, University of California (Berkeley, California, USA); Heino Nitsche, Advisor (deceased)
Conducted experiments in radiochemical separations and target preparation for neutron-capture experiments.

- 1999-2004 Graduate Student Research Assistant, University of California, Berkeley and Lawrence Berkeley National Laboratory (Berkeley, California, USA); Darleane C. Hoffman, Advisor
Designed and performed experiments to investigate the production of very heavy nuclei.

HONORS, AWARDS, AND ACCOMPLISHMENTS

- Distinguished Achievement University-Level Award in Teaching from the Association of Former Students (2020). ([press release](#), [video](#))
- Distinguished Achievement College-Level Award in Teaching from the Association of Former Students (2018). ([link](#))
- DOE Early Career Award (2012). (follow this [link](#) and search for “Folden”)
- Texas A&M University Montague-Center for Teaching Excellence Scholar for the College of Science (AY 2011-2012). ([link](#))
- Alexander von Humboldt Fellowship for Postdoctoral Researchers (2006, awarded but not accepted).
- Finalist to represent the United States at the International Chemistry Olympiad (1994).

AFFILIATIONS

- American Chemical Society (Division of Nuclear Chemistry and Technology).
- American Physical Society (Division of Nuclear Physics).

PEER-REVIEWED MANUSCRIPTS PUBLISHED OR ACCEPTED

The standard for the ordering of authors in my field is as follows: the person(s) directly executing the work first, followed by an alphabetical list of contributing authors, followed by the principal investigator(s).

* Indicates graduate or undergraduate student mentee.

1. E. E. Tereshatov, M. Semelová, K. Čubová, P. Bartl, M. Němec, J. Štursa, V. Zach, C. M. Folden III, J. P. Omtvedt, and J. John, *Valence States of Cyclotron-Produced Thallium*, accepted for publication in New J. Chem. (2021). ([link](#))
2. E. E. Tereshatov, V. Mazan, M. Boltoeva, and C. M. Folden III, *Effect of Hydrophobic Ionic Liquids Aqueous Solubility on Metal Extraction from Hydrochloric Acid Media: Mathematical Modelling and Trivalent Thallium Behavior*, Sep. Purif. Technol. **255**, 117650 (2021). ([link](#))
3. K. J. Glennon*, E. M. Bond, T. A. Bredeweg, S. S. Chirayath, and C. M. Folden III, *Isolating Trace Fission Product Elements in Separated Super-Grade Plutonium for Nuclear Forensics*, accepted for publication in J. Radioanal. Nucl. Chem. (2020). ([link](#))
4. J. M. Edgecomb, E. E. Tereshatov, G. Zante, M. Boltoeva, and C. M. Folden III, *Hydrophobic Amine-Based Binary Mixtures of Active Pharmaceutical and Food Grade Ingredients: Characterization and Application in Indium Extraction from Aqueous Hydrochloric Acid Media*, Green Chem. **22**, 7047-7058 (2020). ([link](#))

5. V. Horvat, E. E. Tereshatov, J. C. Hardy, N. Nica, V. E. Iacob, C. M. Folden III, and M. B. Trzhaskovskaya, *K-Shell Internal Conversion Coefficient for M4 Decay of the 30.8 keV Isomer in ^{93}Nb* , Phys. Rev. C **102**, 014310 (2020). ([link](#))
6. M. F. Volia*, E. E. Tereshatov, M. Boltoeva, and C. M. Folden III, *Indium and Thallium Extraction into Betainium Bis(trifluoromethylsulfonyl)imide Ionic Liquid from Aqueous Chloride Media*, New J. Chem. **44**, 2527-2537 (2020). ([link](#))
7. E. E. Tereshatov, M. Boltoeva, V. Mazan, C. L. Baley*, and C. M. Folden III, *Hydrophobic Polymerized Ionic Liquid for Trace Metal Solid Phase Extraction: Thallium Transfer from Hydrochloric Acid Media*, New J. Chem. **43**, 8958-8969 (2019). ([link](#))
8. K. J. Glennon*, J. M. Osborn, J. D. Burns, E. D. Kitcher, S. S. Chirayath, and C. M. Folden III, *Measuring Key Sm Isotope Ratios in Irradiated UO₂ for use in Plutonium Discrimination Nuclear Forensics*, J. Radioanal. Nucl. Chem. **320**, 405-414 (2019). ([link](#))
9. M. F. Volia*, E. E. Tereshatov, V. Mazan, C. M. Folden III, and M. Boltoeva, *Effect of Aqueous Hydrochloric Acid and Zwitterionic Betaine on the Mutual Solubility Between a Protic Betainium-Based Ionic Liquid and Water*, J. Mol. Liq. **276**, 296-306 (2019). ([link](#))
10. J. M. Osborn*, K. J. Glennon*, E. D. Kitcher, J. D. Burns, C. M. Folden III, and S. S. Chirayath, *Experimental Validation of a Nuclear Forensics Methodology for the Source Reactor-Type Discrimination of Chemically Separated Plutonium*, Nucl. Eng. Tech. **51**(2), 384-393 (2019). ([link](#))
11. N. Nica, J. C. Hardy, V. E. Iacob, V. Horvat, H. I. Park, T. A. Werke, K. J. Glennon*, C. M. Folden III, V. I. Sabla, J. B. Bryant, X. K. James, and M. B. Trzhaskovskaya, *Precise Measurement of α_K and α_T for the 39.8-keV E3 Transition in ^{103}Rh : Test of Internal-Conversion Theory*, Phys. Rev. C **98**, 054321 (2018). ([link](#))
12. J. M. Osborn*, K. J. Glennon*, E. D. Kitcher, J. D. Burns, C. M. Folden III, and S. S. Chirayath, *Computational and Experimental Forensics Characterization of Weapons-Grade Plutonium Produced in a Thermal Neutron Environment*, Nucl. Eng. Tech. **50**(6), 820-828 (2018). ([link](#))
13. J. M. Osborn*, E. D. Kitcher, J. D. Burns, C. M. Folden III, and S. S. Chirayath, *Nuclear Forensics Methodology for Reactor-Type Attribution of Chemically Separated Plutonium*, Nucl. Tech. **201**(1), 1-10 (2018). ([link](#))
14. D. A. Mayorov, E. E. Tereshatov, T. A. Werke, M. M. Frey*, C. M. Folden III, *Heavy-Ion Beam Induced Effects in Enriched Gadolinium Target Films Prepared by Molecular Plating*, Nucl. Instrum. Methods B **407**, 256-264 (2017). ([link](#))
15. N. Nica, J. C. Hardy, V. E. Iacob, T. A. Werke, C. M. Folden III, L. Pineda and M. B. Trzhaskovskaya, *Test of Internal-Conversion Theory with a Measurement in ^{111}Cd* , EPJ Web Conf. **146**, 10004 (2017). ([link](#))
16. N. Nica, J. C. Hardy, V. E. Iacob, T. A. Werke, C. M. Folden III, K. Ofodile, and M. B. Trzhaskovskaya, *Precise Measurement of α_K and α_T for the 109.3-keV M4 Transition in ^{125}Te : Test of Internal-Conversion Theory*, Phys. Rev. C **95**, 064301 (2017). ([link](#))
17. G. Christian, C. M. Folden III, J. Hardy, Y.-W. Lui, D. May, D. Melconian, J. Natowitz, R. Rapp, G. Rogachev, R. Tribble, and S. Yennello, *The Cyclotron Institute at Texas A&M University*, Nucl. Phys. News **27**(2), 5-13 (2017). ([link](#))

18. M. W. Swinney*, C. M. Folden III, R. J. Ellis, and S. S. Chirayath, *Experimental and Computational Forensics Characterization of Weapons-Grade Plutonium Produced in a Fast Reactor Neutron Environment*, Nucl. Tech. **197**(1), 1-11 (2017). ([link](#))
19. P. M. Mendoza*, S. S. Chirayath, and C. M. Folden III, *Fission Product Decontamination Factors for Plutonium Separated by PUREX from Low-Burnup, Fast-Neutron Irradiated Depleted UO₂*, Appl. Radiat. Isotopes **118**, 38-42 (2016). ([link](#))
20. E. E. Tereshatov, M. Yu. Boltoeva, and C. M. Folden III, *First Evidence of Metal Transfer into Hydrophobic Deep Eutectic Mixtures: Indium Extraction from Hydrochloric and Oxalic Acids*, Green Chem. **18**, 4616-4622 (2016). ([link](#))
21. V. Mazan M. Yu. Boltoeva, E. E. Tereshatov, and C. M. Folden III, *Mutual Solubility of Water and Hydrophobic Ionic Liquids in the Presence of Hydrochloric Acid*, RSC Adv. **6**, 56260-56270 (2016). ([link](#))
22. N. Nica, J. C. Hardy, V. E. Iacob, T. A. Werke*, C. M. Folden III, L. Pineda, and M. B. Trzhaskovskaya, *Precise Measurement of α_K and α_T for the 150.8-keV E3 Transition in ¹¹¹Cd: Test of Internal Conversion Theory*, Phys. Rev. C **93**, 034305 (2016). ([link](#))
23. M. C. Alfonso*, M. E. Bennett, and C. M. Folden III, *Extraction Chromatography of the Rf Homologs Zr and Hf Using the TEVA and UTEVA Resins from HCl, HNO₃, and H₂SO₄*, J. Radioanal. Nucl. Chem. **307**, 1529-1536 (2016). ([link](#))
24. E. E. Tereshatov, M. Yu. Boltoeva, V. Mazan, M. F. Volia*, and C. M. Folden III, *Thallium Transfer from Hydrochloric Acid Media Into Pure Ionic Liquids*, J. Phys. Chem. B **120**, 2311-2322 (2016). ([link](#))
25. T. A. Werke*, D. A. Mayorov*, M. C. Alfonso*, E. E. Tereshatov, and C. M. Folden III, *Hot Fusion-Evaporation Cross Sections of ⁴⁴Ca-Induced Reactions with Lanthanide Targets*, Phys. Rev. C **92**, 054617 (2015). ([link](#))
26. D. A. Mayorov*, T. A. Werke*, M. C. Alfonso*, E. E. Tereshatov, M. E. Bennett, M. M. Frey*, and C. M. Folden III, *Evaporation Residue Excitation Function Measurements in ⁵⁰Ti- and ⁵⁴Cr-Induced Reactions with Lanthanide Targets*, Phys. Rev. C **92**, 054601 (2015). ([link](#))
27. T. A. Werke*, D. A. Mayorov*, M. C. Alfonso, M. E. Bennett, M. J. DeVanzo*, M. M. Frey*, E. E. Tereshatov, and C. M. Folden III, *Hot Fusion-Evaporation Cross Sections of ⁴⁵Sc-Induced Reactions with Lanthanide Targets*, Phys. Rev. C **92**, 034613 (2015). ([link](#))
28. E. E. Tereshatov, M. Yu. Boltoeva, and C. M. Folden III, *Resin Ion Exchange and Liquid-Liquid Extraction of Indium and Thallium from Chloride Media*, Solvent Extr. Ion Exc. **33**(6), 607-624 (2015). ([link](#))
29. M. C. Alfonso*, E. E. Tereshatov, M. J. DeVanzo*, J. A. Sefcik*, M. E. Bennett, D. A. Mayorov*, T. A. Werke*, and C. M. Folden III, *New Recoil Transfer Chamber for Thermalization of Heavy Ions Produced in Fusion-Evaporation Reactions*, Nucl. Instrum. Methods A **798**, 52-61 (2015). ([link](#))
30. D. A. Mayorov*, T. A. Werke*, M. C. Alfonso*, M. E. Bennett, and C. M. Folden III, *Production Cross Sections of Elements Near the N = 126 Shell in ⁴⁸Ca-Induced Reactions with ¹⁵⁴Gd, ¹⁵⁹Tb, ¹⁶²Dy and ¹⁶⁵Ho Targets*, Phys. Rev. C **90**, 024602 (2014). ([link](#))
31. M. E. Bennett, M. C. Alfonso*, J. P. Greene, and C. M. Folden III, *Heavy Element Chemistry Facilities at Texas A&M University*, J. Radioanal. Nucl. Chem. **299**, 1107-1112 (2014). ([link](#))

32. C. M. Folden III, D. A. Mayorov*, T. A. Werke*, M. C. Alfonso*, M. E. Bennett, and M. J. DeVanzo*, *Prospects for the Discovery of the Next New Element: Influence of Projectiles with $Z > 20$* , J. Phys. Conf. Ser. **420**, 012007 (2013). ([link](#))
33. C. M. Folden III, M. C. Alfonso*, D. A. Mayorov*, K. R. Lawrence*, A. A. Alharbi, E. Berdugo*, P. J. Cammarata*, A. C. Raphelt*, B. T. Roeder, and T. A. Werke*, *Development of the MARS Separator for Heavy Element Studies*, Nucl. Instrum. Methods A **678**, 1-7 (2012). ([link](#))
34. M. E. Bennett, D. A. Mayorov*, K. D. Chapkin*, M. C. Alfonso*, T. A. Werke*, and C. M. Folden III, *Measurement of the $^{nat}\text{Lu}(p,X)^{175}\text{Hf}$ Excitation Function*, Nucl. Instrum. Methods B **276**, 62-65 (2012). ([link](#))
35. R. Ringle, C. Bachelet, B. R. Barquest, M. Block, G. Bollen, C. M. Campbell, M. Facina, R. Ferrer, C. M. Folden III, C. Guénaut, E. Kwan, A. A. Kwiatkowski, D. L. Lincoln, D. J. Morrissey, G. K. Pang, A. M. Prinke, J. Savory, P. Schury, S. Schwarz, and C. S. Sumithrarachchi, *High-Precision Penning Trap Mass Measurements of ‘Difficult’ Elements Produced via Projectile Fragmentation with LEBIT*, Hyperfine Interact. **199**, 251-259 (2011). ([link](#))
36. R. Ferrer, M. Block, C. Bachelet, C. M. Campbell, M. Facina, C. M. Folden III, C. Guénaut, S. Schwarz, B. Barquest, G. Bollen, A. A. Kwiatkowski, D. L. Lincoln, A. M. Prinke, R. Ringle, J. Savory, and P. Schury, D. J. Morrissey and G. K. Pang, *Penning Trap Mass Spectrometry of Neutron-Rich Fe and Co Isotopes Around $N=40$ with the LEBIT Mass Spectrometer*, Phys. Rev. C **81**, 044318 (2010). ([link](#))
37. R. Ringle, C. Bachelet, M. Block, G. Bollen, M. Facina, C. M. Folden III, C. Guénaut, A. A. Kwiatkowski, D. J. Morrissey, G. K. Pang, A. M. Prinke, J. Savory, P. Schury, S. Schwarz, and C. S. Sumithrarachchi, *High-Precision Penning Trap Mass Measurements of Neutron-Rich Sulfur Isotopes at the $N=28$ Shell Closure*, Phys. Rev. C **80**, 064321 (2009). ([link](#))
38. A. A. Kwiatkowski, B. R. Barquest, G. Bollen, C. M. Campbell, D. L. Lincoln, D. J. Morrissey, G. K. Pang, A. M. Prinke, J. Savory, S. Schwarz, C. M. Folden III, D. Melconian, S. K. L. Sjuve, and M. Block, *Precision Test of the Isobaric Multiplet Mass Equation for the $A = 32, T = 2$ Quintet*, Phys. Rev. C **80**, 051302(R) (2009). ([link](#))
39. C. M. Folden III, A. S. Nettleton, A. M. Amthor, T. N. Ginter, M. Hausmann, T. Kubo, W. D. Loveland, S. L. Manikonda, D. J. Morrissey, T. Nakao, M. Portillo, B. M. Sherrill, G. A. Souliotis, B. F. Strong, H. Takeda, and O. B. Tarasov, *New Neutron-Rich Microsecond Isomers Observed Among Fission Products of ^{238}U at 80 MeV/nucleon*, Phys. Rev. C **79**, 064318 (2009). ([link](#))
40. S. Schwarz, M. Block, G. Bollen, C. M. Campbell, M. Facina, R. Ferrer, C. M. Folden III, A. A. Kwiatkowski, D. J. Morrissey, G. K. Pang, A. M. Prinke, R. J. Ringle, J. Savory, and P. H. Schury, *Precision Penning Trap Mass Measurements of Rare Isotopes Produced by Projectile Fragmentation*, Eur. Phys. J. A **42**, 323-326 (2009). ([link](#))
41. J. Savory, P. Schury, C. Bachelet, M. Block, G. Bollen, M. Facina, C. M. Folden III, C. Guénaut, E. Kwan, A. A. Kwiatkowski, D. J. Morrissey, G. K. Pang, A. Prinke, R. Ringle, H. Schatz, S. Schwarz, and C. S. Sumithrarachchi, *rp Process and Masses of $N \approx Z \approx 34$ Nuclides*, Phys. Rev. Lett. **102**, 132501 (2009). ([link](#))
42. C. M. Folden III, I. Dragojević, Ch. E. Düllmann, R. Eichler, M. A. Garcia, J. M. Gates, S. L. Nelson, R. Sudowe, K. E. Gregorich, D. C. Hoffman, and H. Nitsche, *Measurement of the $^{208}\text{Pb}(^{62}\text{Cr}, n)^{259}\text{Sg}$ Excitation Function*, Phys. Rev. C **79**, 027602 (2009). ([link](#))

43. Ch. E. Düllmann, K. E. Gregorich, G. K. Pang, I. Dragojevic, R. Eichler, C. M. Folden III, M. A. Garcia, J. M. Gates, D. C. Hoffman, S. L. Nelson, R. Sudowe, and H. Nitsche, *Gas Chemical Investigation of Hafnium and Zirconium Complexes with Hexafluoroacetylacetone Using Preseparated Short-Lived Radioisotopes*, *Radiochim. Acta* **97**, 403-418 (2009). ([link](#))
44. M. Facina, C. Bachelet, M. Block, G. Bollen, D. Davies, C. M. Folden III, C. Guenaut, J. Huikari, E. Kwan, D. J. Morrissey, G. K. Pang, A. Prinke, R. Ringle, J. Savory, P. Schury, S. Schwarz, C. Sumithrarachchi, T. Sun, *Charged Particle Transport and Extraction Studies in the NSCL Gas Cell for Stopping Radioactive Fragments*, *Nucl. Instrum. Methods B* **266**, 4471-4474 (2008). ([link](#))
45. M. Block, C. Bachelet, G. Bollen, M. Facina, C. M. Folden III, C. Guénaut, A. A. Kwiatkowski, D. J. Morrissey, G. K. Pang, A. Prinke, R. Ringle, J. Savory, P. Schury, and S. Schwarz, *Mass Measurements of Rare Isotopes with the LEBIT Facility at the NSCL*, *Nucl. Instrum. Methods B* **266**, 4521-4526 (2008). ([link](#))
46. J. M. Gates, S. L. Nelson, K. E. Gregorich, I. Dragojević, Ch. E. Düllmann, P. A. Ellison, C. M. Folden III, M. A. Garcia, L. Stavsetra, R. Sudowe, D. C. Hoffman, and H. Nitsche, *Comparison of Reactions for the Production of $^{258,257}\text{Db}$: $^{208}\text{Pb}(^{51}\text{V},xn)$ and $^{209}\text{Bi}(^{50}\text{Ti},xn)$* , *Phys. Rev. C* **78**, 034604 (2008). ([link](#))
47. S. L. Nelson, C. M. Folden III, K. E. Gregorich, I. Dragojević, Ch. E. Düllmann, R. Eichler, M. A. Garcia, J. M. Gates, R. Sudowe, and H. Nitsche, *Comparison of Complementary Reactions for the Production of $^{261,262}\text{Bh}$* , *Phys. Rev. C* **78**, 024606 (2008). ([link](#))
48. J. M. Gates, M. A. Garcia, K. E. Gregorich, Ch. E. Düllmann, I. Dragojević, J. Dvorak, R. Eichler, C. M. Folden III, W. Loveland, S. L. Nelson, G. K. Pang, L. Stavsetra, R. Sudowe, A. Türler, and H. Nitsche, *Synthesis of Rutherfordium Isotopes in the $^{238}\text{U}(^{26}\text{Mg}, xn)^{264-x}\text{Rf}$ Reaction and Study of Their Decay Properties*, *Phys. Rev. C* **77**, 034603 (2008). ([link](#))
49. M. Block, C. Bachelet, G. Bollen, M. Facina, C. M. Folden III, C. Guénaut, A. A. Kwiatkowski, D. J. Morrissey, G. K. Pang, A. Prinke, R. Ringle, J. Savory, P. Schury, and S. Schwarz, *Discovery of a Nuclear Isomer in ^{65}Fe with Penning Trap Mass Spectrometry*, *Phys. Rev. Lett.* **100**, 132501 (2008). ([link](#))
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53. P. Schury, C. Bachelet, M. Block, G. Bollen, D. A. Davies, M. Facina, C. M. Folden III, C. Guénaut, J. Huikari, E. Kwan, A. Kwiatkowski, D. J. Morrissey, R. Ringle, G. K. Pang, A. Prinke, J. Savory, H. Schatz, S. Schwarz, C. S. Sumithrarachchi, and T. Sun, *Precision Mass Measurements of Rare Isotopes Near $N = Z = 33$ Produced by Fast Beam Fragmentation*, *Phys. Rev. C* **75**, 055801 (2007). ([link](#))

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