

Paul A. DeYoung  
Department of Physics  
Hope College  
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Education and Employment

Associate Science Degree, Muskegon Community College	1975
B.A., Hope College	1977
Graduated Summa Cum Laude	
Elected to Phi Beta Kappa	
Ph.D., University of Notre Dame	1982
Fusion Cross Section Measurements for the $^{12}\text{C} + ^{20}\text{Ne}$ , $^{14}\text{N} + ^{14}\text{N}$ , and $^{14}\text{N} + ^{10}\text{B}$	

Phys121 General Physics I (F88, F89, F90, F91, F92, F94, F97, F98, F99, F00, F01, F02, S03, S04, S06, S07, S08, S11, F12, F13, S15)

Phys122 General Physics II (F89, S90, S91, S92, S94, S98, S01, F05, F06, F07, F08, S00, S13, S14, F14, F21)

Phys141 Physics Lab I (F85, F86, F87, F93, F97, S06, S07, S08, S09, S10, F13, F15, F16, F17, F20)

Phys142 Physics Lab II (S86, S88, S01, F05, F06, F08, F10, S13, S14, S17, S19, S20, S21)

Phys160 Scientific Computer Programming (F91, S94)

Phys195 Accelerator Operations (S17)

Phys241 Electronics Lab (F85)

Phys242 Electronics II (S93)

Phys243 Electronics Lab II (S93)

Phys270 Modern Physics (F85, F86, F87, F92, F93, S09)

Phys280 Introduction to Mathematical Physics (S90, S97, S98, S99, S00, S02, S03, S06, S07, S08, S09, S10, S11, S15, S16, S17, S18, S19, S20, S21)

Phys281 Intermediate Laboratory (S15, S21)

Phys282 Special Relativity (F94, F95, S96)

Phys295 Research (S86, S92)

Phys295 Nuclear Arm Technology (S87, F89)

Phys295 Special Relativity (S94, F95)

Phys295 Studies in Chaos (S95)

Phys295 Physics of Sound (S09)

Phys295 LABView (S10, S16)

Phys295 Nuclear and Particle Physics (S18)

Phys342 Electricity and Magnetism (S86, S87, S88, S89, S93, S95, S96, S97)

Phys352 Optics (F99, F06)

Phys361 Analytical Mechanics (S03, F05)

Phys362 Thermodynamics and Statistical Mechanics (F20)

Phys380 Mathematical Physics II (S07, F15, F17, F19)

Phys381 Advanced Laboratory (F86, F87, F88, F94, F95, F98, F03, S04)

Phys382 Advanced Laboratory (S86, S87, S88, S95, S96, S99, F19, F21)

Phys372 Quantum Mechanics (F95, F00, F10, F12, F14, F16)

Phys495 LABView (S04)

Phys495 Accelerator and Detector Technology (S08)

IDS100 First Year Seminar (F01, F02, F07, F09)

IDS421 Senior Seminar, (S00)

GEMS295 Shake, Rattle, and Roll (S02)

#### Honors and Organization Memberships

Named a Fellow of the American Physical Society in 2012.

Received the 2001 Prize to a Faculty Member for Research in an Undergraduate Institution from the American Physical Society. Served as research mentor to 60 undergraduate students including several from institutions other than Hope College.

National Superconducting Cyclotron User Executive Committee (2004-2007).

Executive Director of the MoNA collaboration (2004-2005, 2008-2009).

Member of the American Physical Society since 1983.

Member of Sigma Xi since 1981 (Secretary/Treasurer of the Hope College Chapter 1987-1990, President during 1994-1995, Served as Associate Director for the Baccalaureate Colleges Constituency Group for two years).

Member of the Council for Undergraduate Research since 1991 (physics councilor 1991-2000).

Received the 2011 prize for the exceptional undergraduate researcher within the Division of Natural and Applied Science at Hope College.

#### Grant Support

RUI: Cutting-Edge Nuclear Physics Research (Collaborative and Interdisciplinary) at Hope College. 2013 NSF PHY1306074 (\$299,106).

MRI-Consortium: Development of a Neutron Detector Array by Undergraduate Research Students for Studies of Exotic Nuclei, 2009 NSF PHY0922792 (\$203,894). (This is the lead proposal for a MoNA Collaboration request from nine undergraduate institutions totalling \$1.2 million.)

RUI: Studies of Unstable Neutron-Rich Nuclei and Interdisciplinary Applications of Nuclear Physics with Undergraduates, 2010 NSF PHY0969058 (\$295,683).

RUI: Fundamental and Applied Nuclear Physics with Undergraduates, 2007 NSF PHY0651627 (\$311,079).

RUI: Multifaceted Opportunities in Nuclear Physics for Undergraduates at Hope College, 2004 NSF PHY0354920 (\$213,252).

MRI; Consortium to Construct a Highly Efficient Neutron Detector Array for the NSCL (Hope College), 2002 NSF PHY0132405 (\$93,626)

RUI: Radioactive Nuclear Beam Physics with Undergraduates at Hope College, 2001 NSF PHY0098061 (\$166,879).

Research in Nuclear Physics with Undergraduates at Hope College, 1998 NSF PHY9870262 (\$161,245).

Research Experiences for Undergraduates in Physics and Engineering at Hope College, 1998 NSF PHY9876955 (\$90,251)

RUI: Heavy-Ion Reaction Studies at Hope College, 1995 NSF PHY9509990 (\$172,668)

Research Experiences for Undergraduates in Physics and Engineering at Hope College, 1995 NSF PHY9515517 (\$120,000)

Acquisition of a CAMAC Based Data-Taking System and Computers to Enhance Research Programs at an Undergraduate Institution, 1994 NSF PHY9413433 (\$60,034)

RUI: Information About Composite Nucleus Decay and Emitted Particles: Correlation Measurements and Intermediate Mass Fragment Studies, 1992 NSF PHY9208787 (\$127,090)

Coordinating the Teaching of Physics and Mathematics Using a Common Computer System, NSF DUE9151925 (\$98,7000)

RUI Equipment: A Detector System for the Study of Heavy-Ion Reaction Mechanisms, 1989 NSF PHY8913030 (\$32,966)

RUI: Studies of Excited Nuclei in Heavy Ion Reactions, 1989 NSF PHY8907170 (\$98,690)

RUI: Light Particle Emission in Heavy Ion Reactions, 1986 NSF PHY8606375 (\$84,000)

Light Particle Emission in Heavy Ion Reactions, 1986 Research Corporation (\$19,000)

### College Wide Committee Assignments

Academic Computing Committee, member (chair 1992{93), 7/88{6/93, 7/05-6/06, 7/07-6/08, 7/09-6/10

Curriculum Committee, member, 7/94{6/96, 7/97-6/98

Academic Affairs Board, member (secretary 1995{99), 7/94{6/96, 7/97{6/98

Status Committee, member, 7/00-6/02, 7/06{6/08

President's Advisory Committee, member, 7/09{6/11

Teacher Education Council, member, 7/10{6/11

Appeal & Grievances Panel, member (chair 2012{16), 7/12{6/18, 7/21{

Student Standing and Appeals Committee 7/20{6/21

### Other Recent Assignments

Departmental Computer System Manager, 1989{

Distinguished Alumni Selection committee, 2005{2007

Provost's ad hoc committee on hiring without terminal degree, 2009

### Recent Community Service

External department reviewer for Rollins College, Murray State University, Hollins University, St. Johns University, Fairleigh University, Moravian College, Ouchita Baptist University and SUNY-Geneseo.

Reviewer for American Journal of Physics, Physical Review C, Nuclear Instruments and Methods, Department of Energy, and the National Science Foundation.

Served on the APKER Prize selection committee for the American Physical Society.

Alternate Board Member for Calvin College.

Regular blood donor.

## Publications

(Student authors are indicated by an .)

1. Inclusive  $\alpha$ -particle Production in the  $^{12}\text{C}+^{12}\text{C}$  Reaction. J.J. Kolata, R.E. Malmin, P.A. DeYoung, S.D. Davis, and R.C. Luhn. Phys. Rev. **21**, 776 (1980).

12. Structure in the Fusion Yield for  $^{32}\text{S}+^{12}\text{C}$ . J.J. Kolata, R.A. Racca, P.A. DeYoung, E. Aguilera-Reyes, and M.A. Xapsos. Phys. Rev. **32**, 1080 (1985).  
<http://link.aps.org/doi/10.1103/PhysRevC.32.1080>
13. Subbarrier fusion measurements for the system  $^{32}\text{S} + ^{238}\text{U}$ . R. H. Freifelder, P. Braun-Munzinger, P. DeYoung, L. Ricken, R. Schicker, S. Sen, J. Stachel and P. H. Zhang. Lecture Notes in Physics, Springer Berlin/Heidelberg, Fusion Reactions Below the Coulomb Barrier, 219, 340 (1985).
14. Pion production: A probe for coherence in medium-energy heavy-ion collisions. J. Stachel, P. Braun-Munzinger, R.H. Freifelder, P. Paul. S. Sen, P. DeYoung, P.H. Zhang, T.C. Awes, F.E. Obenshain, F. Plasil, G.R. Young, R. Fox, and R. Ronningen. Phys. Rev. C **33**, 1420 (1986).  
<http://link.aps.org/doi/10.1103/PhysRevC.33.1420>

- and L. Kowalski. Phys. Rev. C37, 2561 (1988).  
<http://link.aps.org/doi/10.1103/PhysRevC.37.2561>
21. Neutron-emission Spectra and Superdeformation in Light Nuclei. J.J. Kolata, R.A. Kryger, P.A. DeYoung, and F.W. Prosser. Phys. Rev. Lett61, 1178 (1988).  
<http://link.aps.org/doi/10.1103/PhysRevLett.61.1178>
  22. Emission Times in Low Energy Heavy Ion Reactions by Particle-Particle Correlations. P. DeYoung, M.S. Gordon, Xiu Qin Lu, R.L. McGrath, J.M. Alexander, D.M. de Castro Rizzo, and L.C. Vaz. Phys. Rev. C39, 128 (1989).  
<http://link.aps.org/doi/10.1103/PhysRevC.39.128>
  23. Particle-Particle Correlations and Lifetimes of Composite Nuclei: New tests for the Evaporation Model and for Statistical Equilibrium. P.A. DeYoung, C.J. Gelderloos, D. Kortering, J. Sarafa, K. Zienert, M.S. Gordon, G.P. Gilfoyle, X. Lu, R.L. McGrath, D.M. de Castro Rizzo, J.M. Alexander, G. Auger, S. Kox, L.C. Vaz, C. Beck, D.J. Henderson, D.G. Kovar, and M. Vineyard. Phys. Rev. C41, R1885 (1990).  
<http://link.aps.org/doi/10.1103/PhysRevC.41.R1885>
  24. A Monte Carlo Reaction Simulation for Small-Angle Correlation Between Light Charged Particles. R.L. McGrath, A. Elmaani, J.M. Alexander, P.A. DeYoung, T. Ethvignot, M.S. Gordon, and E. Renshaw. Computer Physics Communications59, 507 (1990).  
[http://dx.doi.org/10.1016/0010-4655\(90\)90092-F](http://dx.doi.org/10.1016/0010-4655(90)90092-F),
  25. A Continuous Automatic Correction Algorithm for Instrumental Drifts. Paul A. DeYoung and James D. van Putten. Nucl. Instr. and Meth.A292, 681 (1990).  
[http://dx.doi.org/10.1016/0168-9002\(90\)90187-B](http://dx.doi.org/10.1016/0168-9002(90)90187-B)
  26. Probing the Lifetime of Excited Composite Nuclei with Particle-Particle Correlations. P.A. DeYoung, J.M. Alexander, J.J. Kolata, D. Kortering, R.A. Kryger, C.J. Gelderloos, M.S. Gordon, R.L. McGrath, J. Sarafa, and R. Sedlar. Proceedings of the Corinne 90 conference (Nantes, France), International Workshop on Particle Correlations and Interferometry in Nuclear Collisions, edited by D. Ardouin, World Scientific (1990).
  27. Two Particle Correlations from Neutron-Light Charged Particle Coincidences. R.A. Kryger, J.J. Kolata, W. Chung, R.J. Tighe, J.J. Vega, P.A. DeYoung, C. Copi, J. Sarafa, D.G. Kovar, G.P. Gilfoyle, and S.K. Sigworth. Phys. Rev. Lett65, 2118 (1990).  
<http://link.aps.org/doi/10.1103/PhysRevLett.65.2118>
  28. Charge Particle Evaporation from Hot Composite Nuclei: Evidence Over a Broad Z Range for Distortions from Cold Nuclear Properties. W.E. Parker, M. Kaplan, D.J. Moses, G. La Rana, D. Logan, R. Lacey, J.M. Alexander, D.M. de Castro Rizzo, P. DeYoung, R.J. Welberry, J.T. Boger. Phys. Rev. C44, 774 (1991).  
<http://link.aps.org/doi/10.1103/PhysRevC.44.774>



29. Heavy Residue Production in  $215 \text{ MeV } ^{16}\text{O} + ^{27}\text{Al}$  Reactions. G.P. Gilfoyle, M.S. Gordon, R.L. McGrath, G. Auger, J.M. Alexander, D.G. Kovar, M.F. Vineyard, C. Beck, D.J. Henderson, P.A. DeYoung and D. Kortering. *Phys. Rev. C* 46, 265 (1992).  
<http://link.aps.org/doi/10.1103/PhysRevC.46.265>
30. Particle-Particle Correlations: Independent Particle Emission versus Sequential Decay of Heavy Fragments. M.S. Gordon, R.L. McGrath, J.M. Alexander, P.A. DeYoung, Xiu qin Lu, D.M. de Castro Rizzo, and G.P. Gilfoyle. *Phys. Rev. C* 46, R1 (1992).  
<http://link.aps.org/doi/10.1103/PhysRevC.46.R1>
31. Neutron-Charged Particle Correlation in the 3.8 MeV per Nucleon  $^{16}\text{O} + ^{12}\text{C}$  and 13.4 MeV per Nucleon  $^{16}\text{O} + ^{27}\text{Al}$  Reactions. R.A. Kryger, J.J. Kolata, W. Chung, S. Dixit, R.J. Tighe, J.J. Vega, P.A. DeYoung, C. Copi, J. Sarafa, D.G. Kovar, G.P. Gilfoyle, and S.K. Sigworth. *Phys. Rev. C* 46, 1887 (1992).  
<http://link.aps.org/doi/10.1103/PhysRevC.46.1887>
32. Experimental Verification of the Heisenberg Uncertainty Principle - An Advanced Undergraduate Laboratory. P.A. DeYoung, P.L. Jolivette, and N. Rouze. *Am. J. Phys.* 61, 560 (1993).  
<http://dx.doi.org/10.1119/1.17209>
33. Light Charged Particle and Intermediate Fragment Emission in the Reaction  $640 \text{ MeV } ^{86}\text{Kr} + ^{63}\text{Cu}$ . J. Boger, J.M. Alexander, G. Auger, A. Elmaani, S. Kox, R. Lacey, A. Narayanan, M. Kaplan, D.J. Moses, M.A. McMahan, P.A. DeYoung, C.J. Gelderloos and G. Gilfoyle. *Phys. Rev. C* 49, 1576 (1994).  
<http://link.aps.org/doi/10.1103/PhysRevC.49.1576>
34. Intermediate Mass Fragments from Reactions  $486, 550, 640, \text{ and } 730 \text{ MeV } ^{86}\text{Kr} + ^{63}\text{Cu}$ . J. Boger, J.M. Alexander, A. Elmaani, S. Kox, R. Lacey, A. Narayanan, M. Kaplan, D.J. Moses, M.A. McMahan, P.A. DeYoung, and C.J. Gelderloos *Rev. C* 49, 1597 (1994).  
<http://link.aps.org/doi/10.1103/PhysRevC.49.1597>
35. The STAR Experiment at the Relativistic Heavy Ion Collider, J.W. Harris and the STAR Collaboration. *Nucl. Phys. A* 566, 277c (1994).  
[http://dx.doi.org/10.1016/0375-9474\(94\)90633-5](http://dx.doi.org/10.1016/0375-9474(94)90633-5)
36. Neural Net Triggers for STAR, P.A. DeYoung and S. Slezaka working report for the STAR collaboration at RHIC. Posted at  
[http://rsgi01.rhic.bnl.gov/star/starlib/doc/www/trg/soft\\_1/level\\_1/neural\\_net/neural\\_net.html](http://rsgi01.rhic.bnl.gov/star/starlib/doc/www/trg/soft_1/level_1/neural_net/neural_net.html)
37. Correlation Measurements of Light Charged Particles Emitted from  $^{32}\text{S} + ^{27}\text{Al}$  Reaction at Energies of 105 MeV and 215 MeV. P.A. DeYoung, N.N. Ajitanand, J.M. Alexander, V. Datar, C.J. Gelderloos, G. Gilfoyle, M.S. Gordon, R.L. McGrath, G.F. Peaslee, and J. Sarafa. *Phys. Rev. C* 52, 3488 (1995).  
<http://link.aps.org/doi/10.1103/PhysRevC.52.3488>

38. Small Angle Neutron-Neutron Correlation Functions for the  $^{16}\text{O} + ^{27}\text{Al}$  Reaction at 220 MeV. P.A. DeYoung, T. Butler , C. Dykstra , G. Gilfoyle, M. Nimchek, A. Snyder, J. Hinnefeld, M. Kaplan, J.J. Kolata, J. Kugi, P. Santi, W. Chung, and R. Kryger. Nucl. Phys. A597 , 127 (1996).  
[http://dx.doi.org/10.1016/0375-9474\(95\)00419-X](http://dx.doi.org/10.1016/0375-9474(95)00419-X)
39. Non-linear Coupled Oscillators and Fourier Transforms - An Advanced Undergraduate Laboratory. P.A. DeYoung, D. LaPointe , J. Levy , and W. Lorenz . Am. J. Phys. 64, 898 (1996).  
<http://dx.doi.org/10.1119/1.18118>
40. Probing the Degrees of Freedom in Hot Composite Nuclei via Charged Particle Emis-

46. Study of Nuclear Reactions with Intense, High-Purity, Low Energy Radioactive Ion Beams Using a Versatile Multi-configuration Dual Superconducting-Solenoid System, M.Y. Lee, F.D. Becchetti, T.W. O'Donnell, D.A. Roberts, J.A. Zimmerman, J.J. Kolata, V. Guimaraes, D. Peterson, P. Santi, P.A. DeYoung, G.F. Peaslee, J.D. Hinnefeld. Nucl. Inst. and Methods, A422

Pak, G.F. Peaslee, M. Stern, N.T.B. Stone, S.D. Sundbeck, A.M. Vander Molen, G.D. Westfall, L.B. Yang, and J. Yee. Phys. Rev. C **61**, 061601(R) (2000).  
<http://link.aps.org/doi/10.1103/PhysRevC.61.061601>

54. Nuclear Disassembly in Violent Central Collisions at Intermediate Energies: 65-115 AMeV  $^{40}\text{Ar}+\text{Cu}$ , Ag, Au. E. Colin, Rulin Sun, N.N. Ajitanand, John M. Alexander, M.A. Barton, P.A. DeYoung, K.L. Drake, A. Elmaani, C.J. Gelderloos, E.E. Gualtieri, D. Guinet, S. Hannuschke, J. A. Jaasma, L. Kowalski, Roy A. Lacey, J. Lauret, E. Norbeck, R. Pak, G.F. Peaslee, M. Stern, N.T.B. Stone, S.D. Sundbeck, A.M. Vander Molen, G.D. Westfall, and J. Yee. Phys. Rev. C **61**, 067602 (2000).  
<http://link.aps.org/doi/10.1103/PhysRevC.61.067602>
55. Angular Momentum in the  $^6\text{He}+^{209}\text{Bi}$  Reaction Deduced from Isomer Ratio Measurements. P.A. DeYoung, B. Atallah, B. Hughey, P.L. Jolivet, M. Kern, G.F. Peaslee, V. Guimaraes, J.J. Kolata, D. Tf 43C,

61. Studies of Light Charged Particle Emission From Fission and ER Reactions in the System  $344 \text{ MeV}^{28}\text{Si} + ^{121}\text{Sb} \rightarrow ^{149}\text{Tb}$  ( $E=240 \text{ MeV}$ ). M. Kaplan, C.J. Copi, P.A. DeYoung, G.J. Gilfoyle, P.J. Karol, D.J. Moses, W.E. Parker, K.E. Rehm, J. Saraf and E. Vardaci. Nucl. Phys. A686, 527 (2001).  
[http://dx.doi.org/10.1016/S0375-9474\(00\)00573-X](http://dx.doi.org/10.1016/S0375-9474(00)00573-X)
62. Elliptic Flow in Au+Au Collisions at  $\sqrt{s_{NN}} = 130 \text{ GeV}$ . The STAR Collaboration. Phys. Rev. Lett. 86, 403 (2001).  
<http://link.aps.org/doi/10.1103/PhysRevLett.86.402>
63. Rapid, Precise, Position Measurements in the General Physics Laboratory. P.A. DeYoung and B. Mulder. Am. J. Phys. 70, 1226 (2002).  
<http://dx.doi.org/10.1119/1.1482066>
64. Elastic Scattering and Transfer in the  $^8\text{Li} + ^{208}\text{Pb}$  System Near the Coulomb Barrier. J.J. Kolata, V.Z. Goldberg, L.O. Lamm, M.G. Marino, C.J. O'Keefe, G. Rogachev, E.F. Aguilera, H. Garcia-Martinez, E. Martinez-Quiroz, P. Rosales, F.D. Becchetti, T.W. O'Connell, D.A. Roberts, J.A. Brown, P.A. DeYoung, J.D. Hinnefeld, and S.A. Shaheen. Phys. RevC 65, 054616 (2002).  
<http://link.aps.org/doi/10.1103/PhysRevC.65.054616>
65. Analysis of Event-Mode Data with Interactive Data Language. P.A. DeYoung, B.B. Hilldore, L.M. Kiessel, and G.F. Peaslee. Nucl. Instr. and Meth A 505, 294 (2003).  
[http://dx.doi.org/10.1016/S0168-9002\(03\)01072-6](http://dx.doi.org/10.1016/S0168-9002(03)01072-6)
66. The Twinsol Low-energy Radioactive Nuclear Beam Apparatus: Status and Recent Results. F.D. Becchetti, M.Y. Lee, T.W. O'Donnell, D.A. Roberts, J.J. Kolata, L.O. Lamm, G. Rogachev, V. Guimaraes, P.A. DeYoung, S. Vincent. Nucl. Instr. and Meth. A505, 377 (2003).  
[http://dx.doi.org/10.1016/S0168-9002\(03\)01101-X](http://dx.doi.org/10.1016/S0168-9002(03)01101-X)
67. Structure of the  $^{10}\text{Li}$  Nucleus Investigated via the  $^9\text{Li}(d,p)^{10}\text{Li}$  Reaction. P. Santi, J. J. Kolata, V. Guimaraes, D. Peterson, R. White-Stevens, E. Rischette, D. Bazin, B. M. Sherrill, A. Navin, P. A. DeYoung, P. L. Jolivet, G. F. Peaslee, and R. T. Guray. Phys. Rev. C 67, 024606 (2003).  
<http://link.aps.org/doi/10.1103/PhysRevC.67.024606>
68. MoNA - The Modular Neutron Array. B. Luther, T. Baumann, M. Thoennessen, J. Brown, P. DeYoung, J. Finck, J. Hinnefeld, R. Howes, K. Kemper, P. Pancella, G. Peaslee, W. Rogers, and S. Tabor. Nucl. Instr. and Meth A505, 33 (2003).  
[http://dx.doi.org/10.1016/S0168-9002\(03\)01014-3](http://dx.doi.org/10.1016/S0168-9002(03)01014-3)
69. MoNA - The Modular Neutron Array at the NSCL. T. Baumann, J.A. Brown, P. DeYoung, J.E. Finck, J.D. Hinnefeld, R. Howes, K.W. Kemper, B.A. Luther, P.V. Pancella, G.F. Peaslee, W.F. Rogers, S.L. Tabor, and M. Thoennessen. Proceedings of the 17<sup>th</sup> International Conference of the Application of Accelerators in Research and Industry CAARI 2002, AIP Conference Proceedings 680, 554 (2003).  
<http://dx.doi.org/10.1063/1.1619778>

70. Final State Interaction or a  $^3\text{H}$  Excited State? G.V. Rogachev, J.J. Kolata, L.V. Grigorenko, F.D. Becchetti, P.A. DeYoung, J.D. Hinnefeld, L.O. Lamm, J. Lupton, T.W. O'Donnell, D.A. Roberts, and S. Shaheen. *Phys. RevC* 68, 024602 (2003).  
<http://link.aps.org/doi/10.1103/PhysRevC.68.024602>
71. Experimental Determination of the Surface Density for the  $^6\text{He}$  Exotic Nucleus. L.R. Gasques, L.C. Chamon, D. Pereira, V. Guimaraes, A. Lepine-Szily, M.A.G. Alvarez, E.S. Rossi, Jr., C.P. Silva, B.V. Carlson, J.J. Kolata, L. Lamm, D. Peterson, P. Santi, S. Vincent, P.A. DeYoung, and G. Peaslee. *Phys. RevC* 67, 024602 (2003).  
<http://link.aps.org/doi/10.1103/PhysRevC.67.024602>
72. Analog states of  $^7\text{He}$  Observed via the  $^6\text{He}(p,n)$  Reaction. G.V. Rogachev, J. Bychowski, P. Boutachkov, A. Aprahamian, F.D. Becchetti, Y. Chen, G. Chubarian, P.A. DeYoung, V.Z. Goldberg, J.J. Kolata, G.F. Peaslee, M. Quinn, B.B. Skorodumov, and A. Wehr. *Phys. Rev. Lett.* 92, 232502 (2004).  
<http://link.aps.org/doi/10.1103/PhysRevLett.92.232502>
73.  $^{209}\text{Bi}(^6\text{He}, \gamma)$  Reaction Mechanisms Studied Near the Coulomb Barrier Using n-Coincidence Measurements. J.P. Bychowski, P.A. DeYoung, B.B. Hilldore, J.D. Hinnefeld, A. Vida, F.D. Becchetti, J. Lupton, T.W. O'Donnell, J.J. Kolata, G. Rogachev, and M. Hencheck. *Phys. Lett.* 596B, 26 (2004).  
<http://dx.doi.org/10.1016/j.physletb.2004.05.058>
74. New Approach for Measuring Properties of p-Process Nuclei. R.R.C. Clement, D. Bazin, W. Benenson, B.A. Brown, A.L. Cole, M.W. Cooper, P.A. DeYoung, A. Estrade, M.A. Famiano, N.H. Frank, A. Gade, T. Glasmacher, P.T. Hosmer, W.G. Lynch, F. Montes, W.F. Mueller, G.F. Peaslee, P. Santi, H. Schatz, B.M. Sherrill, M-J. van Goethem, and M.S. Wallace. *Phys. Rev. Lett.* 92, 172502 (2004).  
<http://link.aps.org/doi/10.1103/PhysRevLett.92.172502>
75. Structure of Exotic  $^7\text{He}$  and  $^9\text{He}$ . G.V. Rogachev, A. Aprahamian, F.D. Becchetti, P. Boutachov, Y. Chen, G. Chubarian, P.A. DeYoung, A. Fomichev, V.Z. Golberg, M.S. Golovkov, J.J. Kolata, Yu.Ts. Oganessian, G.F. Peaslee, M. Quinn, A. Rodin, B.B. Skorodumov, R.S. Slepnev, G. Ter-Akopian, W.H. Trzaska, A. Wehr, R. Wolski. *Nucl. Phys. A* 746, 229c (2004).  
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