

Physics Division Published Journal Articles, July-December 2017

PHY-14529-HI-2017

Study of the $^{26}\text{Al}^m(d,p)^{27}\text{Al}$ Reaction and the Influence of the ^{26}Al 0^+ Isomer on the Destruction of ^{26}Al in the Galaxy

S. Almaraz-Calderon, K. E. Rehm, N. Gerken, M. L. Avila, B. P. Kay, R. Talwar, A. D. Ayangeakaa, S. Bottoni, A. A. Chen, C. M. Deibel, C. Dickerson, K. Hanselman, C. R. Hoffman, C. L. Jiang, S. A. Kuvin, O. Nusair, R. C. Pardo, D. Santiago-Gonzalez, J. Sethi, and C. Ugalde

Phys. Rev. Lett. **119**, 072701/1-6 (2017)

PHY-14533-ME-2017

JLab Measurements of the ^3He Form Factors at Large Momentum Transfers

A. Camsonne *et al.* (Jefferson Lab Hall A Collaboration)

Phys. Rev. Lett. **119**, 162501/1-6 (2017)

PHY-14504-ME-2017

First Exclusive Measurement of Deeply Virtual Compton Scattering off ^4He : Toward the 3D Tomography of Nuclei

M. Hattawy *et al.* (CLAS Collaboration)

Phys. Rev. Lett. **119**, 202004/1-7 (2017)

PHY-14509-HI-2017

Observation of a γ -Decaying Millisecond Isomeric State in $^{127}\text{Cd}_{80}$

A. Jungclaus, H. Grawe, S. Nishimura, P. Doornenbal, G. Lorusso, G. S. Simpson, P.-A. Soderstrom, T. Sumikama, J. Taprogge, Z. Y. Xu, H. Baba, F. Browne, N. Fukuda, R. Gernhauser, G. Gey, N. Inabe, T. Isobe, H. S. Jung, D. Kameda, G. D. Kim, Y.-K. Kim, I. Kojouharov, T. Kubo, N. Kurz, Y. K. Kwon, Z. Li, H. Sakurai, H. Schaffner, Y. Shimizu, K. Steiger, H. Suzuki, H. Takeda, Zs. Vajta, H. Watanabe, J. Wu, A. Yagi, K. Yoshinaga, G. Benzoni, S. Bonig, K. Y. Chae, L. Coraggio, J.-M. Daugas, F. Drouet, A. Gadea, A. Gargano, S. Ilieva, N. Itaco, F. G. Kondev, T. Kroll, G. J. Lane, A. Montaner-Piza, K. Moschner, D. Mucher, F. Naqvi, M. Niikura, H. Nishibata, A. Odahara, R. Orlandi, Z. Patel, Zs. Podolyak, and A. Wendt

Phys. Lett. **B772**, 483-488 (2017)

PHY-14460-HI-2017

In-Beam γ -Ray Spectroscopy Studies of Medium-Spin States in the Odd-Odd Nucleus ^{186}Re

D. A. Matters, F. G. Kondev, N. Aoi, Y. Ayyad, A. P. Byrne, M. P. Carpenter, J. J. Carroll, C. J. Chiara, P. M. Davidson, G. D. Dracoulis, Y. D. Fang, C. R. Hoffman, R. O. Hughes, E. Ideguchi, R. V. F. Janssens, S. Kanaya, B. P. Kay, T. Kibedi, G. J. Lane, T. Lauritsen, J. W. McClory, P. Nieminen, S. Noji, A. Odahara, H. J. Ong, A. E. Stuchbery, D. T. Tran, H. Watanabe, A. N. Wilson, Y. Yamamoto, and S. Zhu

Phys. Rev. C **96**, 014318/1-7 (2017)

PHY-14472-HI-2017

High- j Neutron Excitations Outside ^{136}Xe

R. Talwar, B. P. Kay, A. J. Mitchell, S. Adachi, J. P. Entwisle, Y. Fujita, G. Gey, S. Noji, H. J. Ong, J. P. Schiffer, and A. Tamii
Phys. Rev. C **96**, 024310/1-9 (2017)

PHY-14474-TH-2017

Variational Calculation of the Ground State of Closed-Shell Nuclei up to $A = 40$

D. Lonardoni, A. Lovato, Steven C. Pieper, and R. B. Wiringa
Phys. Rev. C **96**, 024326/1-22 (2017)

PHY-14191-HI-2015

γ Spectroscopy of States in ^{32}Cl Relevant for the $^{31}\text{S}(p,\gamma)^{32}\text{Cl}$ Reaction Rate

L. Afanasieva, J. C. Blackmon, C. M. Deibel, J. Lai, L. E. Linhardt, B. C. Rasco, D. Seweryniak, M. Alcorta, M. P. Carpenter, J. A. Clark, C. R. Hoffman, R. V. F. Janssens, and S. Zhu
Phys. Rev. C **96**, 035801/1-5 (2017)

PHY-14572-HI-2017

Shape Coexistence in the Odd-Odd Nucleus ^{98}Y : The Role of the $g_{9/2}$ Neutron Extruder

W. Urban, M. Czerwiński, J. Kurpeta, J. Rzaca-Urban, J. Wiśniewski, T. Materna, L. W. Iskra, A. G. Smith, I. Ahmad, A. Blanc, H. Faust, U. Köster, M. Jentschel, P. Mutti, T. Soldner, G. S. Simpson, J. A. Pinston, G. de France, C. A. Ur, V.-V. Elomaa, T. Eronen, J. Hakala, A. Jokinen, A. Kankainen, I. D. Moore, J. Rissanen, A. Saastamoinen, J. Szerypo, C. Weber, and J. Äystö
Phys. Rev. C **96**, 044333/1-22 (2017)

PHY-14480-HI-2017

Performance of a Gamma-Ray Tracking Array: Characterizing the AGATA Array Using a ^{60}Co Source

A. Korichi, T. Lauritsen, A. N. Wilson, J. Dudouet, E. Clément, N. Lalovic, R. M. Perez-Vidal, S. Pietri, D. Ralet, and O. Stézowski
Nucl. Instrum. Methods **A872**, 80-86 (2017)

PHY-14520-ME-2017

Field Degassing as a New Sampling Method for ^{14}C Analysis in Old Groundwater

Reika Yokochi, Ryan Bernier, Roland Purtschert, Jake C. Zappala, Yoseph Yechieli, Eilon Adar, Wei Jiang, Zheng-Tian Lu, Peter Mueller, Gerard Olack and Roi Ram
Radiocarbon, **First View**, 1-18 (2017)