**Physics Division Published Journal Articles, January-June 2015**

PHY-13971-ME-2014

Towards a Resolution of the Proton Form Factor Problem: New Electron and Positron Scattering Data

 D. Adikaram *et al*. (CLAS Collaboration)

Phys. Rev. Lett. **114**, 062003/1-6 (2015)

PHY-13973-ME-2014

Measurement of the Two-Photon Exchange Contribution to the Elastic *e*±*p* Scattering Cross Sections at the VEPP-3 Storage Ring

I. A. Rachek, J. Arrington, V. F. Dmitriev, V. V. Gauzshtein, R. E. Gerasimov,

A. V. Gramolin, R. J. Holt, V. V. Kaminskiy, B. A. Lazarenko, S. I. Mishnev,

N. Yu. Muchnoi, V. V. Neufeld, D. M. Nikolenko, R. Sh. Sadykov, Yu. V. Shestakov,

V. N. Stibunov, D. K. Toporkov, H. de Vries, S. A. Zevakov, and V. N. Zhilich

Phys. Rev. Lett. **114**, 062005/1-5 (2015)

PHY-13744-HI-2014

Transverse Wobbling in 135Pr

J. T. Matta, U. Garg, W. Li, A. D. Ayangeakaa, S. Frauendorf, D. Patel, K. W. Schlax,

R. Palit, S. Saha, J. Sethi, J. Trivedi, S. S. Ghugre, R. Raut, A. K. Sinha, R. V. F. Janssens,

S. Zhu, M. P. Carpenter, T. Lauritsen, D. Seweryniak, C. J. Chiara, F. G. Kondev,

D. J. Hartley, C. M. Petrache, S. Mukhopadhyay, D. Vijaya Lakshmi, M. Kumar Raju,

P. V. Madhusudhana Rao, S. K. Tandel, S. Ray, and F. Dönau

Phys. Rev. Lett. **114**, 082501/1-6 (2015)

PHY-14016-ME-2015

First Measurement of the Atomic Electric Dipole Moment of Radium-225

R. H. Parker, M. R. Dietrich, M. R. Kalita, N. D. Lemke, K. G. Bailey, M. N. Bishof,

J. P. Greene, R. J. Holt, W. Korsch, Z.-T. Lu, P. Mueller, T. P. O'Connor, and J. T. Singh

Phys. Rev. Lett. **114**, 233002/1-5 (2015)

PHY-13968-ME-2014

Precision Measurements of $A\_{1}^{n}$ in the Deep Inelastic Regime

 D. S. Parno *et al*. (Jefferson Lab Hall A Collaboration)

Phys. Lett. **B744**, 309-314 (2015)

PHY-13995-HI:TH-2015

Oscillations Above the Barrier in the Fusion of 28Si + 28Si

G. Montagnoli, A. M. Stefanini, H. Esbensen, L. Corradi, S. Courtin, E. Fioretto, J. Grebosz, F. Haas, H. M. Jia, C. L. Jiang, M. Mazzocco, C. Michelagnoli, T. Mijatovic, D. Montanari, C. Parascandolo, F. Scarlassara, E. Strano, S. Szilner, and D. Torres

Phys. Lett. **B746**, 300-304 (2015)

PHY-14007-HI-2015

Core Excitations Across the Neutron Shell Gap in 207Tl

E. Wilson, Zs. Podolyák, H. Grawe, B. A. Brown, C. J. Chiara, S. Zhu, B. Fornal,

R. V. F. Janssens, C. M. Shand, M. Bowry, M. Bunce, M. P. Carpenter, N. Cieplicka-Oryńczak, A. Y. Deo, G. D. Dracoulis, C. R. Hoffman, R. S. Kempley, F. G. Kondev,

G. J. Lane, T. Lauritsen, G. Lotay, M. W. Reed, P. H. Regan, C. Rodríguez Triguero,

D. Seweryniak, B. Szpak, and P. M. Walker

Phys. Lett. **B747**, 88-92 (2015)

PHY-14037-HI-2015

Reduced Quasifission Competition in Fusion Reactions Forming Neutron-Rich Heavy Elements

K. Hammerton, Z. Kohley, D. J. Hinde, M. Dasgupta, A. Wakhle, E. Williams,

V. E. Oberacker, A. S. Umar, J. P. Carter, K. J. Cook, J. Greene, D. Y. Jeung, D. H. Luong, S. D. McNeil, C. S. Palshetkar, D. C. Rafferty, C. Simenel, and K. Stiefel

Phys. Rev. C **91**, 041602(R)/1-5 (2015)

PHY-13914-ME-2014

Separated Response Functions in Exclusive, Forward *π*± Electroproduction of Deuterium

G. M. Huber *et al.* (Jefferson Lab F*π* Collaboration)

Phys. Rev. C **91**, 015202/1-23 (2015)

PHY-14101-HI-2015

Electron Capture Decay of 58-min $$ and Levels in $$

I. Ahmad, R. R. Chasman, J. P. Greene, F. G. Kondev, and S. Zhu

Phys. Rev. C **92**, 024313/1-10 (2015)

PHY-14099-HI-2015

Investigation of the *i*13/2 Neutron Orbital in the 132Sn Region: New Excited Levels in 135Sb

 A. Korgul, P. Baczyk, W. Urbąn, T. Rzaca-Urbąn, A. G. Smith, and I. Ahmad

Phys. Rev. C **91**, 027303/1-4 (2015)

PHY-14011-HI-2015

Observation of *γ* Vibrations and Alignments Built on Non-Ground-State Configurations in 156Dy

S. N. T. Majola, D. J. Hartley, L. L. Riedinger, J. F. Sharpey-Schafer, J. M. Allmond,

C. Beausang, M. P. Carpenter, C. J. Chiara, N. Cooper, D. Curien, B. J. P. Gall, P. E. Garrett, R. V. F. Janssens, F. G. Kondev, W. D. Kulp, T. Lauritsen, E. A. McCutchan, D. Miller,

J. Piot, N. Redon, M. A. Riley, J. Simpson, I. Stefanescu, V. Werner, X. Wang, J. L. Wood, C.-H. Yu, and S. Zhu

Phys. Rev. C **91**, 034330/1-9 (2015)

PHY-13976-TH-2015

Incoherent Pion Production in Neutrino-Deuteron Reactions

Jia-Jun Wu, T. Sato, and T.-S. H. Lee

Phys. Rev. C **91**, 035203/1-11 (2015)

PHY-13990-HI-2015

Identification of Deformed Intruder States in Semi-Magic 70Ni

C. J. Chiara, D. Weisshaar, R. V. F. Janssens, Y. Tsunoda, T. Otsuka, J. L. Harker,

W. B. Walters, F. Recchia, M. Albers, M. Alcorta, V. M. Bader, T. Baugher, D. Bazin,

J. S. Berryman, P. F. Bertone, C. M. Campbell, M. P. Carpenter, J. Chen, H. L. Crawford,

H. M. David, D. T. Doherty, A. Gade, C. R. Hoffman, M. Honma, F. G. Kondev, A. Korichi, C. Langer, N. Larson, T. Lauritsen, S. N. Liddick, E. Lunderberg, A. O. Macchiavelli,

S. Noji, C. Prokop, A. M. Rogers, D. Seweryniak, N. Shimizu, S. R. Stroberg, S. Suchyta,

Y. Utsuno, S. J. Williams, K. Wimmer, and S. Zhu

Phys. Rev. C **91**, 044309/1-10 (2015)

PHY-13947-HI-2014

High-Resolution *α* and Electron Spectroscopy of $$

 I. Ahmad, J. P. Greene, F. G. Kondev, and S. Zhu

Phys. Rev. C **91**, 044310/1-8 (2015)

PHY-14012-HI-2015

The Role of the *νg*9/2 Orbital in the Development of Collectivity in the *A* ≈ 60 Region: The Case of 61Co

A. D. Ayangeakaa, S. Zhu, R. V. F. Janssens, M. P. Carpenter, M. Albers, M. Alcorta,

T. Baugher, P. F. Bertone, C. J. Chiara, P. Chowdhury, H. M. David, A. N. Deacon,

B. DiGiovine, A. Gade, C. R. Hoffman, F. G. Kondev, T. Lauritsen, C. J. Lister,

E. A. McCutchan, D. S. Moerland, C. Nair, A. M. Rodgers, and D. Seweryniak

Phys. Rev. C **91**, 044327/1-15 (2015)

PHY-14005-HI-2015

Fusion Reactions of 58,64Ni + 124Sn

C. L. Jiang, A. M. Stefanini, H. Esbensen, K. E. Rehm, S. Almaraz-Calderon, M. L. Avila,

B. B. Back, D. Bourgin, L. Corradi, S. Courtin, E. Fioretto, F. Galtarossa, A. Goasduff,

F. Haas, M. M. Mazzocco, D. Montanari, G. Montagnoli, T. Mijatovic, R. Sagaidak,

D. Santiago-Gonzalez, F. Scarlassara, E. E. Strano, and S. Szilner

Phys. Rev. C **91**, 044602/1-7 (2015)

PHY-14026-ME-2015

Measurement of Parity-Violating Asymmetry in Electron-Deuteron Inelastic Scattering

 D. Wang *et al.* (The PVDIS Collaboration)

Phys. Rev. C **91**, 045506/1-39 (2015)

PHY-14022-HI-2015

High-Spin Terminating States in the *N* = 88 155Ho and 156Er Isotones

J. M. Rees, E. S. Paul, J. Simpson, M. A. Riley, A. D. Ayangeakaa, M. P. Carpenter,

C. J. Chiara, U. Garg, P. Hampson, D. J. Hartley, C. R. Hoffman, R. V. F. Janssens,

F. G. Kondev, T. Lauritsen, P. J. R. Mason, J. Matta, S. L. Miller, P. J. Nolan, J. Ollier,

M. Petri, D. C. Radford, J. P. Revill, X. Wang, S. Zhu, J. Gellanki, and I. Ragnarsson

Phys. Rev. C **91**, 054301/1-17 (2015)

PHY-13982-ME-2015

Direct Observation of Quark-Hadron Duality in the Free Neutron *F*2 Structure Function

I. Niculescu, G. Niculescu, W. Melnitchouk, J. Arrington, M. E. Christy, R. Ent,

K. A. Griffioen, N. Kalantarians, C. E. Keppel, S. Kuhn, S. Tkachenko, and J. Zhang

Phys. Rev. C **91**, 055206/1-7 (2015)

PHY-14030-HI-2015

Persistence of Collective Behavior at High Spin in the *N* = 88 Nucleus 153Tb

D. J. Hartley, M. A. Riley, X. Wang, S. Miller, R. V. F. Janssens, E. S. Paul, J. M. Rees,

J. Simpson, L. L. Riedinger, A. D. Ayangeakaa, M. P. Carpenter, C. J. Chiara, U. Garg,

P. Hampson, C. R. Hoffman, F. G. Kondev, T. Lauritsen, P. J. R. Mason, J. T. Matta,

P. J. Nolan, J. Ollier, M. Petri, D. C. Radford, J. P. Revill, S. Zhu, and I. Ragnarsson

Phys. Rev. C **91**, 057301/1-4 (2015)

PHY-14053-HI-2015

The 136Xe + 208Pb Reaction: A Test of Models of Multinucleon Transfer Reactions

J. S. Barrett, W. Loveland, R. Yanez, S. Zhu, A. D. Ayangeakaa, M. P. Carpenter,

J. P. Greene, R. V. F. Janssens, T. Lauritsen, E. A. McCutchan, A. A. Sonzogni, C. J. Chiara, J. L. Harker, and W. B. Walters

Phys. Rev. C **91**, 064615/1-12 (2015)

PHY-14003-ME-2015

Flavor Decomposition of the Nucleon Electromagnetic Form Factors at Low *Q*2

 I. A. Qattan, J. Arrington, and A. Alsaad

Phys. Rev. C **91**, 065203/1-11 (2015)

PHY-14147-ME-2015

Single and Double Spin Asymmetries for Deeply Virtual Compton Scattering Measured with CLAS and a Longitudinally Polarized Proton Target

S. Pisano *et al.* (CLAS Collaboration)

Phys. Rev. D **91**, 052014/1-27 (2015)

PHY-14073-ME-2015

Pentaquark Θ+ Search at HERMES

 N. Akopov *et al*. (HERMES Collaboration)

Phys. Rev. D **91**, 057101/1-5 (2015)

PHY-14125-RI-2015

Toward the Drip Lines and the Superheavy Island of Stability with the Super Separator Spectrometer S3

F. Dechery, A. Drouart, H. Savajols, J. Nolen, M. Authier, A. M. Amthor, D. Boutin,

O. Delferriere, B. Gall, A. Hue, B. Laune, F. Le Blanc, S. Manikonda, J. Payet, M.-H. Stodel,

E. Traykov, and D. Uriot

Eur. Phys. J. A **51**, 66 (2015)

PHY-14044-ME-2015

Evaluation of the Proton Charge Radius from Electron-Proton Scattering

 John Arrington and Ingo Sick

J. Phys. and Chem. Ref. Data **44**, 031203/1-5 (2015)

PHY-13964-HI-2014

Bubble Chambers for Experiments in Nuclear Astrophysics

B. DiGiovine, D. Henderson, R. J. Holt, R. Raut, K. E. Rehm, A. Robinson,

A. Sonnenschein, G. Rusev, A. P. Tonchev, and C. Ugalde

Nucl. Instrum. Methods **A781**, 96-104 (2015)

PHY-13963-AL-2014

An RF Beam Sweeper for Purifying In-Flight Produced Secondary Ion Beams at ATLAS

 R. C. Pardo, J. Bogaty, S. Sharamentov, and K. E. Rehm

Nucl Instrum. Methods **A790**, 1-5 (2015)

PHY-13981-RI-2015

Advanced Low-Beta Cavity Development for Proton and Ion Accelerators

Z. A. Conway, M. P. Kelly, and P. N. Ostroumov

Nucl. Instrum. Methods **B350**, 94-98 (2015)

PHY-13979-HI-2015

In Memoriam: Lowell Bollinger (1923-2014)

Jerry Nolen, Richard Pardo, and John Schiffer

Nucl. Phys. News **25**, 39 (2015)

PHY-14072-ME-2015

Proton Form Factors and Two-Photon Exchange in Elastic Electron-Proton Scattering

D. M. Nikolenko, J. Arrington, L. M. Barkov, H. de Vries, V. V. Gauzshtein, R. A. Golovin, A. V. Gramolin, V. F. Dmitriev, V. N. Zhilich, S. A. Zevakov, V. V. Kaminsky,

B. A. Lazarenko, S. I. Mishnev, N. Yu. Muchnoi, V. V. Neufeld, I. A. Rachek,

R. Sh. Sadykov, V. N. Stibunov, D. K. Toporkov, R. J. Holt, and Yu. V. Shestakov

Phys. of At. Nuclei **78**, 394-403 (2015)

PHY-14033-AL-2015

Lowell M. Bollinger Obituary

 Richard C. Pardo, John Schiffer, and Jerry Nolen

Phys. Today **68**, 63 (2015)