PHYSICAL REVIEW C **THIRD SERIES, VOLUME 80, NUMBER 2** **AUGUST 2009**

Cross-section measurement of the $^{18}F(\alpha, p)^{21}Ne$ reaction and possible implication for neutron production in explosive helium burning *(8 pages)* 025805
H. Y. Lee, M. Couder, A. Couture, S. Falahat, J. Görres, L. Lamm, P. J. LeBlanc, S. O'Brien, A. Palumbo, E. Stech, E. Strandberg, W. Tan, C. Ugalde, and M. Wiescher

Effect of the δ meson on the instabilities of nuclear matter under strong magnetic fields *(7 pages)* 025806
A. Rabhi, C. Providência, and J. Da Providência

Effects of distortion of the intercluster motion in ^{2}H, ^{3}He, ^{3}H, ^{6}Li, and ^{9}Be on Trojan horse applications *(10 pages)* 025807
R. G. Pizzone, C. Spitaleri, A. M. Mukhamedzhanov, L. D. Blokhintsev, C. A. Bertulani, B. F. Irgaziev, M. La Cognata, L. Lamia, and S. Romano

BRIEF REPORTS

Nucleon-nucleon charge symmetry breaking and the $dd \to \alpha\pi^0$ reaction *(4 pages)* 027001
A. C. Fonseca, R. Machleidt, and G. A. Miller

Resonance states of ^{7}He in a microscopic cluster model *(4 pages)* 027301
K. Arai and S. Aoyama

Model space truncation in shell-model fits *(4 pages)* 027302
G. F. Bertsch and C. W. Johnson

Odd-even mass difference and isospin dependent pairing interaction *(4 pages)* 027303
C. A. Bertulani, H. F. Lü, and H. Sagawa

Transverse flow of charmed hadrons in relativistic heavy-ion collisions *(4 pages)* 027901
P. Girigori and T. Peitzmann

On-shell consistency of the Rarita-Schwinger field formulation *(4 pages)* 028201
H. Krebs, E. Epelbaum, and Ulf-G. Meißner

Deep exclusive electroproduction of π^+ from data measured with the HERMES detector at DESY *(4 pages)* 028202
Murat M. Kaskulov and Ulrich Mosel

ERRATA

Publisher's Note: New calculation method of neutron kerma coefficients for carbon and oxygen below 30 MeV [Phys. Rev. C **78**, 054610 (2008)] *(1 page)* ..... 029901(E)
Xiaojun Sun, Wenjing Qu, Junfeng Duan, and Jingshang Zhang

Erratum: γ-ray production by proton and α-particle induced reactions on ^{12}C, ^{16}O, ^{24}Mg, and Fe [Phys. Rev. C **76**, 034607 (2007)] *(5 pages)* ..... 029902(E)
A. Belhout, J. Kiener, A. Coc, J. Duprat, C. Engrand, C. Fitoussi, M. Gounelle, A. Lefebvre-Schuhl, N. de Séréville, V. Tatischeff, J.-P. Thibaud, M. Chabot, F. Hammache, and H. Benhabiles-Mezhoud

Erratum: Reaction cross sections of carbon isotopes incident on a proton [Phys. Rev. C **77**, 034607 (2008)] *(1 page)* ..... 029903(E)
B. Abu-Ibrahim, W. Horiuchi, A. Kohama, and Y. Suzuki

Erratum: Neutral current coherent pion production [Phys. Rev. C **76**, 068501 (2007)] *(1 page)* ..... 029904(E)
L. Alvarez-Ruso, L. S. Geng, and M. J. Vicente Vacas

Erratum: Precision mass measurements of rare isotopes near $N = Z = 33$ produced by fast beam fragmentation [Phys. Rev. C **75**, 055801 (2007)] *(1 page)* ..... 029905(E)
P. Schury, C. Bachelet, M. Block, G. Bollen, D. A. Davies, M. Facina, C. M. Folden III, C. Guénaut, J. Huikari, E. Kwan, A. A. Kwiatkowski, D. J. Morrissey, R. Ringle, G. K. Pang, A. Prinke, J. Savory, H. Schatz, S. Schwarz, C. S. Sumithrarachchi, and T. Sun

PHYSICAL REVIEW C **THIRD SERIES, VOLUME 80, NUMBER 2** **AUGUST 2009**

Exclusive vector meson production in electron-ion collisions *(9 pages)* 025202
V. P. Gonçalves, M. S. Kugeratski, M. V. T. Machado, and F. S. Navarra

Evidence of $N^*(1535)$ resonance contribution in the $pn \to d\phi$ reaction *(6 pages)* 025203
Xu Cao, Ju-Jun Xie, Bing-Song Zou, and Hu-Shan Xu

Measurement of $\pi^0\Lambda$, $\bar{K}^0 n$, and $\pi^0\Sigma^0$ production in $K^- p$ interactions for p_{K^-} between 514 and 750 MeV/c *(18 pages)* 025204
S. Prakhov, B. M. K. Nefkens, V. Bekrenev, W. J. Briscoe, N. Knecht, A. Koulbardis, N. Kozlenko, S. Kruglov, G. Lolos, I. Lopatin, A. Marušić, S. McDonald, D. Peaslee, N. Phaisangittisakul, J. W. Price, A. Shafi, A. Starostin, H. M. Staudenmaier, I. I. Strakovsky, and I. Supek

Formation of η-mesic nuclei by the (π, N) reaction and properties of $N^*(1535)$ in medium *(13 pages)* 025205
Hideko Nagahiro, Daisuke Jido, and Satoru Hirenzaki

Neutron charge density from simple pion cloud models *(4 pages)* 025206
Jared A. Rinehimer and Gerald A. Miller

Dynamical coupled-channels analysis of $^1\mathrm{H}(e, e'\pi)N$ reactions *(9 pages)* 025207
B. Juliá-Díaz, H. Kamano, T.-S. H. Lee, A. Matsuyama, T. Sato, and N. Suzuki

Estimate of the two-photon exchange effect on deuteron electromagnetic form factors *(8 pages)* 025208
Yu Bing Dong

ϕ decay: A relevant source for K^- production at energies available at the GSI Schwerionen-Synchrotron (SIS)? *(11 pages)* 025209
G. Agakishiev *et al.* (HADES Collaboration)

Dissociation of quarkonium in a hot QCD medium: Modification of the interquark potential *(7 pages)* 025210
Vineet Agotiya, Vinod Chandra, and Binoy K. Patra

Electroweak Interaction, Symmetries

Double-β-decay Q values of ^{130}Te, ^{128}Te, and ^{120}Te *(5 pages)* 025501
N. D. Scielzo, S. Caldwell, G. Savard, J. A. Clark, C. M. Deibel, J. Fallis, S. Gulick, D. Lascar, A. F. Levand, G. Li, J. Mintz, E. B. Norman, K. S. Sharma, M. Sternberg, T. Sun, and J. Van Schelt

Experimental study of double-β decay modes using a CdZnTe detector array *(5 pages)* 025502
J. V. Dawson, C. Goessling, B. Janutta, M. Junker, T. Koettig, D. Muenstermann, S. Rajek, C. Reeve, O. Schulz, J. R. Wilson, and K. Zuber

Exchange current contributions in null-plane quantum models of elastic electron-deuteron scattering *(31 pages)* 025503
Y. Huang and W. N. Polyzou

Nuclear Astrophysics

Imprints of the nuclear symmetry energy on gravitational waves from the axial w-modes of neutron stars *(9 pages)* 025801
De-Hua Wen, Bao-An Li, and Plamen G. Krastev

Neutron Fermi liquids under the presence of a strong magnetic field with effective nuclear forces *(8 pages)* 025802
M. Ángeles Pérez-García, J. Navarro, and A. Polls

Thermodynamic properties of nuclear matter with three-body forces *(5 pages)* 025803
V. Somà and P. Bożek

Neutron capture cross sections of ^{184}W and ^{186}W *(8 pages)* 025804
J. Marganiec, I. Dillmann, C. Domingo Pardo, and F. Käppeler

(Continued)

PHYSICAL REVIEW C **THIRD SERIES, VOLUME 80, NUMBER 2** **AUGUST 2009**

Coulomb dissociation of ^{15}C and radiative neutron capture on ^{14}C *(8 pages)* 024608
H. Esbensen

Calculations of ^{8}He+p elastic cross sections using a microscopic optical potential *(10 pages)* 024609
V. K. Lukyanov, E. V. Zemlyanaya, K. V. Lukyanov, D. N. Kadrev, A. N. Antonov, M. K. Gaidarov, and S. E. Massen

Neutron activation cross sections on lead isotopes *(12 pages)* 024610
V. Semkova, P. Reimer, T. Altzitzoglou, A. J. M. Plompen, C. Quétel, S. Sudár, J. Vogl, A. J. Koning, S. M. Qaim, and D. L. Smith

Calculation of nuclear reaction cross sections on excited nuclei with the coupled-channels method *(9 pages)* 024611
T. Kawano, P. Talou, J. E. Lynn, M. B. Chadwick, and D. G. Madland

Dynamical dipole mode in fusion reactions at 16 MeV/nucleon and beam energy dependence *(16 pages)* 024612
D. Pierroutsakou, B. Martin, C. Agodi, R. Alba, V. Baran, A. Boiano, G. Cardella, M. Colonna, R. Coniglione, E. De Filippo, A. Del Zoppo, M. Di Toro, G. Inglima, T. Glodariu, M. La Commara, C. Maiolino, M. Mazzocco, A. Pagano, C. Parascandolo, P. Piattelli, S. Pirrone, C. Rizzo, M. Romoli, M. Sandoli, D. Santonocito, P. Sapienza, and C. Signorini

Disentangling full and partial linear momentum transfer events in the ^{16}O + ^{169}Tm system at $E_{\rm proj} \leqslant 5.4$ MeV/nucleon *(10 pages)* 024613
Unnati Gupta, Pushpendra P. Singh, Devendra P. Singh, Manoj Kumar Sharma, Abhishek Yadav, R. Kumar, S. Gupta, H. D. Bhardwaj, B. P. Singh, and R. Prasad

Relativistic Nuclear Collisions

Covariant and self-consistent vertex corrections for pions and isobars in nuclear matter *(16 pages)* 024901
C. L. Korpa, M. F. M. Lutz, and F. Riek

Photoabsorption off nuclei with self-consistent vertex corrections *(8 pages)* 024902
F. Riek, M. F. M. Lutz, and C. L. Korpa

Ground state energy of spin polarized quark matter with correlation *(8 pages)* 024903
Kausik Pal, Subhrajyoti Biswas, and Abhee K. Dutt-Mazumder

Kolmogorov-Smirnov test and its use for the identification of fireball fragmentation *(8 pages)* 024904
Ivan Melo, Boris Tomášik, Giorgio Torrieri, Sascha Vogel, Marcus Bleicher, Samuel Koróny, and Mikuláš Gintner

Pion interferometry in Au + Au and Cu + Cu collisions at $\sqrt{s_{NN}} = 62.4$ and 200 GeV *(12 pages)* 024905
B. I. Abelev *et al.* (STAR Collaboration)

Forward-backward multiplicity correlations in the "wounded nucleon" model *(7 pages)* 024906
Adam Bzdak

Exact hydrodynamic solution for the elliptic flow *(8 pages)* 024907
Robi Peschanski and Emmanuel N. Saridakis

Photon-hadron jet correlations in $p + p$ and Au + Au collisions at $\sqrt{s_{NN}} = 200$ GeV *(14 pages)* 024908
A. Adare *et al.* (PHENIX Collaboration)

Systematic studies of elliptic flow measurements in Au + Au collisions at $\sqrt{s_{NN}} = 200$ GeV *(25 pages)* 024909
S. Afanasiev *et al.* (PHENIX Collaboration)

Hadronic Physics and QCD

Exclusive photoproduction of $f_1(1285)$ meson off the proton in kinematics available at the Jefferson Laboratory experimental facilities *(4 pages)* 025201
N. I. Kochelev, M. Battaglieri, and R. De Vita

(Continued)

PHYSICAL REVIEW C **THIRD SERIES, VOLUME 80, NUMBER 2** **AUGUST 2009**

Neutron skin thickness in the droplet model with surface width dependence: Indications of softness of the nuclear symmetry energy *(12 pages)* 024316
M. Warda, X. Viñas, X. Roca-Maza, and M. Centelles

Energy of the ground and 2^+ excited states of ${}^{10}_{\Lambda\Lambda}$Be: A partial ten-body model *(6 pages)* 024317
Mohammad Shoeb and Sonika

High-lying, non-yrast shell structure in ^{52}Ti *(11 pages)* 024318
S. Zhu, R. V. F. Janssens, B. Fornal, S. J. Freeman, M. Honma, R. Broda, M. P. Carpenter, A. N. Deacon, E. Jackson, B. P. Kay, T. Lauritsen, C. J. Lister, P. F. Mantica, T. Otsuka, D. Seweryniak, J. F. Smith, D. Steppenbeck, and X. Wang

Polarization transfer measurements for ^{12}C($\vec{p},\vec{n}$)^{12}N(g.s., 1^+) at 296 MeV and nuclear correlation effects *(13 pages)* 024319
M. Dozono, T. Wakasa, E. Ihara, S. Asaji, K. Fujita, K. Hatanaka, M. Ichimura, T. Ishida, T. Kaneda, H. Matsubara, Y. Nagasue, T. Noro, Y. Sakemi, Y. Shimizu, H. Takeda, Y. Tameshige, A. Tamii, and Y. Yamada

Collapse of the random-phase approximation: Examples and counter-examples from the shell model *(6 pages)* ... 024320
Calvin W. Johnson and Ionel Stetcu

Decay of a $K^\pi = 21/2^-$, 17-ms isomer in ^{185}Ta *(7 pages)* 024321
G. J. Lane, G. D. Dracoulis, A. P. Byrne, R. O. Hughes, H. Watanabe, F. G. Kondev, C. J. Chiara, M. P. Carpenter, R. V. F. Janssens, T. Lauritsen, C. J. Lister, E. A. McCutchan, D. Seweryniak, S. Zhu, P. Chowdhury, and I. Stefanescu

Deformation and shape transitions in hot rotating neutron deficient Te isotopes *(7 pages)* 024322
Mamta Aggarwal and I. Mazumdar

Natural reference for nuclear high-spin states *(17 pages)* 024323
Neil Rowley, James Ollier, and John Simpson

Nuclear Reactions

Calculation of fission observables through event-by-event simulation *(11 pages)* 024601
Jørgen Randrup and Ramona Vogt

Improved radiative corrections to $(e, e'p)$ experiments: Explicit treatment of kinematical corrections in multiphoton bremsstrahlung *(8 pages)* 024602
Florian Weissbach, Kai Hencken, Daniela Kiselev, and Dirk Trautmann

Absence of entrance channel effects in fission fragment anisotropies of the ^{215}Fr compound nucleus *(6 pages)* 024603
S. Appannababu, S. Mukherjee, N. L. Singh, P. K. Rath, G. Kiran Kumar, R. G. Thomas, S. Santra, B. K. Nayak, A. Saxena, R. K. Choudhury, K. S. Golda, A. Jhingan, R. Kumar, P. Sugathan, and Hardev Singh

Isospin dependent nucleon-nucleus optical potential with Skyrme interactions *(22 pages)* 024604
Qing-biao Shen (申庆彪), Yin-lu Han (韩银录), and Hai-rui Guo (郭海瑞)

Relativistic descriptions of inclusive quasielastic electron scattering: Application to scaling and superscaling ideas *(12 pages)* 024605
Andrea Meucci, J. A. Caballero, C. Giusti, F. D. Pacati, and J. M. Udías

Thermodynamics of clusterized matter *(13 pages)* 024606
Ad. R. Raduta and F. Gulminelli

Integer ratios of S_n/E_n in ^{40}Ca + n resonances suggesting two-oscillator excitations in the target nucleus *(6 pages)* 024607
Makio Ohkubo

(Continued)

PHYSICAL REVIEW C **THIRD SERIES, VOLUME 80, NUMBER 2** **AUGUST 2009**

Nuclear Structure

Continuum Hartree-Fock-Bogoliubov theory for weakly bound deformed nuclei using the coordinate-space Green's function method *(14 pages)* 024301
Hiroshi Oba and Masayuki Matsuo

Decay of the $9/2^-$ isomer in ^{181}Tl and mass determination of low-lying states in ^{181}Tl, ^{177}Au, and ^{173}Ir *(8 pages)* 024302
A. N. Andreyev, S. Antalic, D. Ackermann, T. E. Cocolios, V. F. Comas, J. Elseviers, S. Franchoo, S. Heinz, J. A. Heredia, F. P. Heßberger, S. Hofmann, M. Huyse, J. Khuyagbaatar, I. Kojouharov, B. Kindler, B. Lommel, R. Mann, R. D. Page, S. Rinta-Antila, P. J. Sapple, Š. Šáro, P. Van Duppen, M. Venhart, and H. V. Watkins

20 μs isomeric state in doubly odd $^{134}_{61}$Pm *(6 pages)* 024303
D. M. Cullen, P. J. R Mason, S. V. Rigby, C. Scholey, S. Eeckhaudt, T. Grahn, P. T. Greenlees, U. Jakobsson, P. M. Jones, R. Julin, S. Juutinen, S. Ketelhut, A. M. Kishada, M. Leino, A.-P. Leppänen, K. Mäntyniemi, P. Nieminen, M. Nyman, J. Pakarinen, P. Peura, P. Rahkila, J. Sarén, J. Sorri, J. Uusitalo, B. J. Varley, and M. Venhart

Two-quasiparticle isomers and bands of ^{154,156}Nd and ^{156,158,160}Sm *(12 pages)* 024304
G. S. Simpson, W. Urban, J. Genevey, R. Orlandi, J. A. Pinston, A. Scherillo, A. G. Smith, J. F. Smith, I. Ahmad, and J. P. Greene

Spectroscopy of ^{13}B via the ^{13}C(t,^{3}He) reaction at 115A MeV *(10 pages)* 024305
C. J. Guess, R. G. T. Zegers, B. A. Brown, Sam M. Austin, D. Bazin, C. Caesar, J. M. Deaven, G. F. Grinyer, C. Herlitzius, G. W. Hitt, S. Noji, R. Meharchand, G. Perdikakis, H. Sakai, Y. Shimbara, and C. Tur

Continuum spectroscopy with a ^{10}C beam: Cluster structure and three-body decay *(15 pages)* 024306
R. J. Charity, T. D. Wiser, K. Mercurio, R. Shane, L. G. Sobotka, A. H. Wuosmaa, A. Banu, L. Trache, and R. E. Tribble

Wigner energy and shell gaps in two-nucleon separation energies *(6 pages)* 024307
A. Gelberg, H. Sakurai, M. W. Kirson, and S. Heinze

Nuclear fission dynamics within a generalized Langevin approach *(6 pages)* 024308
V. M. Kolomietz and S. V. Radionov

Continuum random-phase approximation for relativistic point coupling models *(19 pages)* 024309
J. Daoutidis and P. Ring

Universal decay rule for reduced widths *(7 pages)* 024310
D. S. Delion

Splitting of the 2^+ mixed symmetry mode in the proximity of the $N = 82$ shell closure *(7 pages)* 024311
N. Lo Iudice, Ch. Stoyanov, and N. Pietralla

Pairing in the framework of the unitary correlation operator method (UCOM): Hartree-Fock-Bogoliubov calculations *(13 pages)* 024312
H. Hergert and R. Roth

Axially deformed relativistic Hartree Bogoliubov theory with a separable pairing force *(7 pages)* 024313
Yuan Tian, Zhong-yu Ma, and P. Ring

Nuclear response for the Skyrme effective interaction with zero-range tensor terms *(11 pages)* 024314
D. Davesne, M. Martini, K. Bennaceur, and J. Meyer

Effective operators from exact many-body renormalization *(9 pages)* 024315
A. F. Lisetskiy, M. K. G. Kruse, B. R. Barrett, P. Navratil, I. Stetcu, and J. P. Vary

(Continued)

PHYSICAL REVIEW C

For editorial and subscription correspondence, please see inside front cover
(ISSN: 0556-2813)

PERIODICALS
Postmaster send address changes to:
PHYSICAL REVIEW C
APS Subscription Services
Suite 1NO1
2 Huntington Quadrangle
Melville, NY 11747-4502

THIRD SERIES, VOLUME 80, NUMBER 2 *CONTENTS* **AUGUST 2009**

RAPID COMMUNICATIONS

Evolution of deformation in the neutron-rich krypton isotopes: The ^{96}Kr nucleus *(5 pages)* . . . . . 021301(R)
N. Mărginean, D. Bucurescu, C. A. Ur, C. Mihai, L. Corradi, E. Farnea, D. Filipescu, E. Fioretto, D. Ghiţă, B. Guiot, M. Górska, M. Ionescu-Bujor, A. Iordăchescu, D. Jelavić-Malenica, S. M. Lenzi, P. Mason, R. Mărginean, D. Mengoni, G. Montagnoli, D. R. Napoli, S. Pascu, G. Pollarolo, F. Recchia, A. M. Stefanini, R. Silvestri, T. Sava, F. Scarlassara, S. Szilner, and N. V. Zamfir

Disappearance of the $N = 14$ shell *(4 pages)* . . . . . 021302(R)
M. J. Strongman, A. Spyrou, C. R. Hoffman, T. Baumann, D. Bazin, J. Brown, P. A. DeYoung, J. E. Finck, N. Frank, S. Mosby, W. F. Rogers, G. F. Peaslee, W. A. Peters, A. Schiller, S. L. Tabor, and M. Thoennessen

Triaxial rotor model description of quadrupole interference in collective nuclei: The P_3 term *(4 pages)* . . . . . 021303(R)
J. M. Allmond, J. L. Wood, and W. D. Kulp

Di-neutron correlations in ^{7}H *(5 pages)* . . . . . 021304(R)
S. Aoyama and N. Itagaki

Similarity of nuclear structure in the ^{132}Sn and ^{208}Pb regions: Proton-neutron multiplets *(5 pages)* . . . . . 021305(R)
L. Coraggio, A. Covello, A. Gargano, and N. Itaco

Ab initio computation of neutron-rich oxygen isotopes *(5 pages)* . . . . . 021306(R)
G. Hagen, T. Papenbrock, D. J. Dean, M. Hjorth-Jensen, and B. Velamur Asokan

Instantaneous-shape sampling for calculation of the electromagnetic dipole strength in transitional nuclei *(5 pages)* . . . . . 021307(R)
S. Q. Zhang, I. Bentley, S. Brant, F. Dönau, S. Frauendorf, B. Kämpfer, R. Schwengner, and A. Wagner

Antiproton-nucleus collisions simulation within a kinetic approach with relativistic mean fields *(5 pages)* . . . . . 021601(R)
A. B. Larionov, I. A. Pshenichnov, I. N. Mishustin, and W. Greiner

ARTICLES

Nucleon-Nucleon Interaction, Few-Body Systems

Two-potential formula and its application to proton-proton scattering *(9 pages)* 024001
M. Pavón Valderrama and E. Ruiz Arriola

Three-particle model of the pion-nucleon system *(26 pages)* 024002
Michael G. Fuda and Fatih Bulut

Copyright 2009 by The American Physical Society

0556-2813(200908)80:2;1-O

(Continued)