

CONTENTS - Continued

PHYSICAL REVIEW C

THIRD SERIES, VOLUME 102, NUMBER 2

AUGUST 2020

Measurement and analysis of nuclear γ -ray production cross sections in proton interactions with Mg, Si, and Fe nuclei abundant in astrophysical sites over the incident energy range $E = 30\text{--}66$ MeV (23 pages)	025802
W. Yahia-Cherif, S. Ouichaoui, J. Kiener, E. A. Lawrie, J. J. Lawrie, V. Tatischeff, A. Belhout, D. Moussa, P. Papka, H. Benhabiles-Mezhoud, T. D. Bucher, A. Chafa, J. L. Conradie, S. Damache, M. Debabi, I. Deloncle, J. L. Easton, C. Hamadache, F. Hammache, P. Jones, B. V. Kheswa, N. A. Khumalo, T. Lamula, S. N. T. Majola, J. Ndayishimye, D. Negi, S. P. Noncolela, N. de Séréville, J. F. Sharpey-Schafer, O. Shirinda, M. Wiedeking, and S. Wyngaardt	
Cross section of ultrahigh-energy neutrinos: Estimation of the uncertainties due to parton distribution functions (5 pages)	025803
M. E. Mosquera and O. Civitarese	
Indirect measurement of the 57.7 keV resonance strength for the astrophysical γ -ray source of the $^{25}\text{Mg}(p, \gamma)^{26}\text{Al}$ reaction (8 pages)	025804
Y. J. Li (李云居), Z. H. Li (李志宏), E. T. Li (李二涛), X. Y. Li (李鑫悦), T. L. Ma (马田丽), Y. P. Shen (谌阳平), J. C. Liu (刘建成), L. Gan (甘林), Y. Su (苏毅), L. H. Qiao (乔律华), Z. Y. Han (韩治宇), Y. Zhou (周勇), J. Su (苏俊), S. Q. Yan (颜胜权), S. Zeng (曾晟), Y. B. Wang (王友宝), B. Guo (郭冰), G. Lian (连钢), D. Nan (南丁), X. X. Bai (白希祥), and W. P. Liu (柳卫平)	

ERRATA

Erratum: Long-wavelength phonons in the crystalline and pasta phases of neutron-star crusts [Phys. Rev. C 97 , 065805 (2018)] (2 pages)	029901(E)
David Durel and Michael Urban	
Erratum: One- and two-phonon γ -vibrational bands in neutron-rich ^{107}Mo [Phys. Rev. C 96 , 034319 (2017)] (3 pages)	029902(E)
J. Marcellino, E. H. Wang, C. J. Zachary, J. H. Hamilton, A. V. Ramayya, G. H. Bhat, J. A. Sheikh, A. C. Dai, W. Y. Liang, F. R. Xu, J. K. Hwang, N. T. Brewer, Y. X. Luo, J. O. Rasmussen, S. J. Zhu, G. M. Ter-Akopian, and Yu. Ts. Oganessian	
Erratum: Signature splitting inversion and backbending in ^{80}Rb [Phys. Rev. C 87 , 034320 (2013)] (3 pages)	029903(E)
Chuangye He, Shuifa Shen, Shuxian Wen, Lihua Zhu, Xiaoguang Wu, Guangsheng Li, Yue Zhao, Yupeng Yan, Zhijun Bai, Yican Wu, Yazhou Li, Gui Li, Shiwei Yan, M. Oshima, Y. Toh, A. Osa, M. Koizumi, Y. Hatsukawa, M. Matsuda, and T. Hayakawa	

CONTENTS - Continued

PHYSICAL REVIEW C

THIRD SERIES, VOLUME 102, NUMBER 2

AUGUST 2020

Higher order symmetric cumulants (23 pages)	024907
Cindy Mordasini, Ante Bilandzic, Deniz Karakoç, and Seyed Farid Taghavi	
Critical point fluctuations: Finite size and global charge conservation effects (9 pages)	024908
Roman V. Poberezhnyuk, Oleh Savchuk, Mark I. Gorenstein, Volodymyr Vovchenko, Kirill Taradiy, Viktor V. Begun, Leonid Satarov, Jan Steinheimer, and Horst Stoecker	
Kinetic freeze-out temperature from yields of short-lived resonances (6 pages)	024909
Anton Motornenko, Volodymyr Vovchenko, Carsten Greiner, and Horst Stoecker	
New estimator for symmetry plane correlations in anisotropic flow analyses (11 pages)	024910
Ante Bilandzic, Marcel Lesch, and Seyed Farid Taghavi	
Robustness of principal component analysis of harmonic flow in heavy ion collisions (8 pages)	024911
Ziming Liu, Arabinda Behera, Huichao Song, and Jiangyong Jia	
$K^*(892)^0$ and $\phi(1020)$ production at midrapidity in pp collisions at $\sqrt{s} = 8$ TeV (15 pages)	024912
S. Acharya <i>et al.</i> (ALICE Collaboration)	
 Momentum-dependent potential and collective flows within the relativistic quantum molecular dynamics approach based on relativistic mean-field theory (11 pages)	024913
Yasushi Nara, Tomoyuki Maruyama, and Horst Stoecker	
 Proton-number fluctuations in $\sqrt{s_{NN}} = 2.4$ GeV Au + Au collisions studied with the High-Acceptance DiElectron Spectrometer (HADES) (35 pages)	024914
J. Adamczewski-Musch <i>et al.</i> (HADES Collaboration)	
Probing the evolution of heavy-ion collisions using direct photon interferometry (12 pages)	024915
Oscar Garcia-Montero, Nicole Löher, Aleksas Mazeliauskas, Jürgen Berges, and Klaus Reygers	
Correlation between global polarization, angular momentum, and flow in heavy-ion collisions (7 pages)	024916
Yu. B. Ivanov and A. A. Soldatov	
Response relation in Pb-Pb and p -Pb collisions at 5.02 TeV (6 pages)	024917
De-Xian Wei, Li-Juan Zhou, and Xin-Fei Li	
Hadronic Physics and QCD	
Differential cross sections, photon beam asymmetries, and spin density matrix elements of ω photoproduction off the proton at $E_\gamma = 1.3\text{--}2.4$ GeV (10 pages)	025201
N. Muramatsu <i>et al.</i> (LEPS2/BGOegg Collaboration)	
The $\gamma p \rightarrow \phi \eta' p$ reaction in an effective Lagrangian model (8 pages)	025202
Shao-Fei Chen and Bo-Chao Liu	
Excluded-volume model for quarkyonic matter: Three-flavor baryon-quark mixture (9 pages)	025203
Dyana C. Duarte, Saul Hernandez-Ortiz, and Kie Sang Jeong	
Hidden charm pentaquarks $\Lambda_{c\bar{c}}$ above 4 GeV (7 pages)	025204
Xuejie Liu, Hongxia Huang, and Jialun Ping	
Electroweak Interaction, Symmetries	
 Chiral effective field theory calculations of weak transitions in light nuclei (13 pages)	025501
G. B. King, L. Andreoli, S. Pastore, M. Piarulli, R. Schiavilla, R. B. Wiringa, J. Carlson, and S. Gandolfi	
Nuclear Astrophysics	
Shell-model studies of the astrophysical rp -process reactions $^{34}\text{S}(p, \gamma)^{35}\text{Cl}$ and $^{34g,m}\text{Cl}(p, \gamma)^{35}\text{Ar}$ (8 pages)	025801
W. A. Richter, B. A. Brown, R. Longland, C. Wrede, P. Denissenkov, C. Fry, F. Herwig, D. Kurtulgil, M. Pignatari, and R. Reifarth	

(Continued)

CONTENTS - Continued

PHYSICAL REVIEW C

THIRD SERIES, VOLUME 102, NUMBER 2

AUGUST 2020

Hard-photon production and its correlation with intermediate-mass fragments in a framework of a quantum molecular dynamics model (8 pages)	024620
S. S. Wang (王闪闪), Y. G. Ma (马余刚), X. G. Cao (曹喜光), D. Q. Fang (方德清), and C. W. Ma (马春旺)	
Correlations between fission fragment and neutron anisotropies in neutron-induced fission (9 pages)	024621
A. E. Lovell, P. Talou, I. Stetcu, and K. J. Kelly	
Coupled-reaction-channel study of the $^{12}\text{C}(\alpha, ^8\text{Be})$ reaction and the $^8\text{Be} + ^8\text{Be}$ optical potential (9 pages)	024622
Do Cong Cuong, Pierre Descouvemont, Dao T. Khoa, and Nguyen Hoang Phuc	
Nonstatistical fluctuations in the $^{35}\text{Cl}(n, p)^{35}\text{S}$ reaction cross section at fast-neutron energies from 0.6 to 6 MeV (13 pages)	024623
S. A. Kuvin, H. Y. Lee, T. Kawano, B. DiGiovine, A. Georgiadou, C. Vermeulen, M. White, L. Zavorka, and H. I. Kim	
Evaporation and fission decay of ^{158}Er composite nuclei within the statistical model (12 pages)	024624
A. Di Nitto, E. Vardaci, G. La Rana, P. N. Natchochy, A. Boiano, M. Cinausero, G. Prete, N. Gelli, E. M. Kozulin, G. N. Knyazheva, A. Ordine, F. Davide, C. Parascandolo, D. Pierrousakou, and A. Pulcini	
Production of ^{266}Bh in the $^{248}\text{Cm}(^{23}\text{Na}, 5n)^{266}\text{Bh}$ reaction and its decay properties (12 pages)	024625
H. Haba, F. Fan, D. Kaji, Y. Kasamatsu, H. Kikunaga, Y. Komori, N. Kondo, H. Kudo, K. Morimoto, K. Morita, M. Murakami, K. Nishio, J. P. Omtvedt, K. Ooe, Z. Qin, D. Sato, N. Sato, T. K. Sato, Y. Shigekawa, A. Shinohara, M. Takeyama, T. Tanaka, A. Toyoshima, K. Tsukada, Y. Wakabayashi, Y. Wang, S. Wulff, S. Yamaki, S. Yano, Y. Yasuda, and T. Yokokita	
Barrier distribution for the weakly bound stable projectile ^7Li with the medium-mass target nucleus ^{64}Ni (7 pages)	024627
Md. Moin Shaikh, Subinit Roy, A. Mukherjee, A. Goswami, Balaram Dey, S. Pal, S. Roy, A. Shrivastava, S. K. Pandit, and K. Mahata	
Secondary γ -ray decays from the partial-wave T matrix with an R -matrix application to $^{15}\text{N}(p, \alpha_1\gamma)^{12}\text{C}$ (6 pages)	024628
Carl R. Brune and R. James deBoer	
Relativistic Nuclear Collisions	
Constraining the quadrupole deformation of atomic nuclei with relativistic nuclear collisions (16 pages)	024901
Giuliano Giacalone	
Constraining the particle production mechanism in Au + Au collisions at $\sqrt{s_{NN}} = 7.7, 27$, and 200 GeV using a multiphase transport model (15 pages)	024902
Abhirikshma Nandi, Lokesh Kumar, and Natasha Sharma	
Beam energy dependence of net- Λ fluctuations measured by the STAR experiment at the BNL Relativistic Heavy Ion Collider (11 pages)	024903
J. Adam <i>et al.</i> (STAR Collaboration)	
Validation and improvement of the ZPC parton cascade inside a box (10 pages)	024904
Xin-Li Zhao, Guo-Liang Ma, Yu-Gang Ma, and Zi-Wei Lin	
Calculating fluctuations and self-correlations numerically for causal charge diffusion in relativistic heavy-ion collisions (14 pages)	024905
Aritra De, Christopher Plumberg, and Joseph I. Kapusta	
Sensitivity study with a D and B mesons modular simulation code of heavy flavor R_{AA} and azimuthal anisotropies based on beam energy, initial conditions, hadronization, and suppression mechanisms (36 pages)	024906
Roland Katz, Caio A. G. Prado, Jacquelyn Noronha-Hostler, Jorge Noronha, and Alexandre A. P. Suaide	

(Continued)

CONTENTS - Continued

PHYSICAL REVIEW C

THIRD SERIES, VOLUME 102, NUMBER 2

AUGUST 2020

Search for α decay of naturally occurring osmium nuclides accompanied by γ quanta (10 pages)	024605
P. Belli, R. Bernabei, F. Cappella, V. Caracciolo, R. Cerulli, F. A. Danevich, A. Incicchitti, D. V. Kasperovych, V. V. Kobychiev, G. P. Kovtun, N. G. Kovtun, M. Laubenstein, D. V. Poda, O. G. Polischuk, A. P. Shcherban, S. Tessalina, and V. I. Tretyak	
Properties of a separable representation of optical potentials (8 pages)	024606
M. Quinonez, L. Hlophe, and F. M. Nunes	
Ternary fission of α -structured nuclei with $12 \leq A \leq 60$: A three-body decay approach (7 pages)	024607
C. Karthikraj and Zhongzhou Ren	
Two effects in nucleon-induced nonelastic cross sections based on the intranuclear cascade model (6 pages)	024608
Masahiro Nakano, Yuji Yamaguchi, and Yusuke Uozumi	
 Bayesian analysis of the $^{70}\text{Zn}(d, ^3\text{He}) ^{69}\text{Cu}$ transfer reaction (14 pages)	024609
C. Marshall, P. Morfouace, N. de Séréville, and R. Longland	
Kinetic energy spectra and angular distributions of projectile-like fragments in $^{12,13}\text{C} + ^{93}\text{Nb}$ reactions (10 pages)	024610
T. N. Nag, R. Tripathi, S. Sodaye, K. Sudarshan, S. Santra, K. Ramachandran, A. Kundu, D. Chattopadhyay, A. Pal, and P. K. Pujari	
Comparison between optical-model potentials in G -matrix folding method and improved local-density approximation method (10 pages)	024611
M. Kohn	
Production of neutron deficient isotopes in the multinucleon transfer reaction $^{48}\text{Ca}(E_{\text{lab}} = 5.63 \text{ MeV/nucleon}) + ^{248}\text{Cm}$ (6 pages)	024612
Sh. A. Kalandarov, G. G. Adamian, N. V. Antonenko, H. M. Devaraja, and S. Heinz	
Neutron capture cross section of ^{53}Mn from irradiation with cold and reactor neutrons (9 pages)	024613
J. Ulrich, M. Ayrarov, A. Kaestner, D. Schumann, P. Sprung, A. Türler, L. Viererbl, M. Vinš, H. Assmann-Vratislavská, and R. Dressler	
Effects of density-dependent scenarios of in-medium nucleon-nucleon interactions in heavy-ion collisions (8 pages)	024614
Gao-Feng Wei, Chang Xu, Wei Xie, Qi-Jun Zhi, Shi-Guo Chen, and Zheng-Wen Long	
Role of neutron transfer in sub-barrier fusion (8 pages)	024615
Rudra N. Sahoo, Malika Kaushik, Arshiya Sood, Arzoo Sharma, Swati Thakur, Pawan Kumar, Md. Moin Shaikh, Rohan Biswas, Abhishek Yadav, Manoj K. Sharma, J. Gehlot, S. Nath, N. Madhavan, R. G. Pillay, E. M. Kozulin, G. N. Knyazheva, K. V. Novikov, and Pushpendra P. Singh	
Quantifying uncertainties in neutron- α scattering with chiral nucleon-nucleon and three-nucleon forces (11 pages)	024616
Konstantinos Kravvaris, Kevin R. Quinlan, Sofia Quaglioni, Kyle A. Wendt, and Petr Navrátil	
Role of the quasifission yields in the multinucleon transfer reactions of $^{136}\text{Xe} + ^{208}\text{Pb}$ (8 pages)	024617
Gen Zhang, Jing-Jing Li, Xin-Rui Zhang, Bing Li, Cheikh A. T. Sokhna, Chen Wang, Zhong Liu, and Feng-Shou Zhang	
Medium effects on Ξ^- production in the nuclear (K^-, K^+) reaction (8 pages)	024618
Toru Harada and Yoshiharu Hirabayashi	
Merging of transport theory with the time-dependent Hartree-Fock approach: Multinucleon transfer in U+U collisions (12 pages)	024619
S. Ayik, B. Yilmaz, O. Yilmaz, and A. S. Umar	

(Continued)

CONTENTS - Continued

PHYSICAL REVIEW C

THIRD SERIES, VOLUME 102, NUMBER 2

AUGUST 2020

Spectroscopic investigation of complex nuclear excitations in ^{66}Ga (15 pages)	024328
U. S. Ghosh, S. Rai, B. Mukherjee, A. Biswas, A. K. Mondal, K. Mandal, A. Chakraborty, S. Chakraborty, G. Mukherjee, A. Sharma, I. Bala, S. Muralithar, and R. P. Singh	
Metastable states from multinucleon excitations in ^{202}Tl and ^{203}Pb (12 pages)	024329
S. G. Wahid, S. K. Tandel, Saket Suman, M. Hemalatha, Anurag Patel, Poulomi Roy, A. Y. Deo, Pragati, P. C. Srivastava, Bharti Bhoy, S. S. Bhattacharjee, R. P. Singh, S. Muralithar, P. Chowdhury, R. V. F. Janssens, M. P. Carpenter, T. L. Khoo, F. G. Kondev, T. Lauritsen, C. J. Lister, D. Seweryniak, S. Zhu, S. Rai, and A. Sharma	
Mass relations of mirror nuclei with local correlations (7 pages)	024330
C. Ma, Y. Y. Zong, Y. M. Zhao, and A. Arima	
Contribution of the ρ meson and quark substructure to the nuclear spin-orbit potential (9 pages)	024331
Guy Chanfray and Jérôme Margueron	
^8He and ^9Li cluster structures in light nuclei (8 pages)	024332
Naoyuki Itagaki, Tokuro Fukui, Junki Tanaka, and Yuma Kikuchi	
Proton widths and spectroscopic factors in ^{19}F at $E_x = 8\text{--}11\text{ MeV}$ (3 pages)	024333
H. T. Fortune	
Coexistence in ^{72}Kr (4 pages)	024334
H. T. Fortune	
Single-particle structure in neutron-rich Sr isotopes approaching the $N = 60$ shape transition (12 pages)	024335
S. Cruz, K. Wimmer, S. S. Bhattacharjee, P. C. Bender, G. Hackman, R. Krücken, F. Ames, C. Andreoiu, R. A. E. Austin, C. S. Bancroft, R. Braid, T. Bruhn, W. N. Catford, A. Cheeseman, A. Chester, D. S. Cross, C. Aa. Diget, T. Drake, A. B. Garnsworthy, R. Kanungo, A. Knapton, W. Korten, K. Kuhn, J. Lassen, R. Laxdal, M. Marchetto, A. Matta, D. Miller, M. Moukaddam, N. A. Orr, N. Sachmpazidi, A. Sanetullaev, C. E. Svensson, N. Terpstra, C. Unsworth, and P. J. Voss	
Reexamined lifetimes of the low-lying states of ^{86}Zr by recoil distance differential decay measurements (8 pages)	024336
D. Bucurescu, C. Mihai, C. Costache, R. E. Mihai, N. Mărginean, S. Kisyov, N. Florea, G. Căta-Danil, I. Căta-Danil, R. Lică, R. Mărginean, A. Negret, C. R. Niță, S. Pascu, L. Stroe, G. Suliman, R. Șuvăilă, and C. A. Ur	
Decay spectroscopy of ^{129}Cd (13 pages)	024337
Y. Saito <i>et al.</i> (GRIFFIN collaboration)	
Nuclear Reactions	
Exclusive-final-state hadron observables from neutrino-nucleus multinucleon knockout (16 pages)	024601
J. E. Sobczyk, J. Nieves, and F. Sánchez	
Inclusive electron scattering off ^{12}C , ^{40}Ca , and ^{40}Ar : Effects of the meson exchange currents (9 pages)	024602
A. V. Butkevich and S. V. Luchuk	
Systematic evidence for quasifission in ^9Be -, ^{12}C -, and ^{16}O -induced reactions forming $^{258,260}\text{No}$ (22 pages)	024603
T. Banerjee, D. J. Hinde, D. Y. Jeung, K. Banerjee, M. Dasgupta, A. C. Berriman, L. T. Bezzina, H. M. Albers, Ch. E. Düllmann, J. Khuyagbaatar, B. Kindler, B. Lommel, E. C. Simpson, C. Sengupta, B. M. A. Swinton-Bland, T. Tanaka, A. Yakushev, K. Eberhardt, C. Mokry, J. Runke, P. Thörle-Pospiech, and N. Trautmann	
Excitation of $^{229\text{m}}\text{Th}$ in the electron bridge via continuum, as a scattering process (8 pages)	024604
A. Ya. Dzyublik	

(Continued)

CONTENTS - Continued

PHYSICAL REVIEW C

THIRD SERIES, VOLUME 102, NUMBER 2

AUGUST 2020

Spectroscopic study of ^{38}K above the $31.67\ \mu\text{s}$ isomer (13 pages)	024315
Rozina Rahaman, Abhijit Bisoi, Y. Sapkota, Anik Adhikari, Ananya Das, S. Sarkar, M. Saha Sarkar, A. Goswami, S. Ray, M. Roy Basu, Debasmita Kanjilal, Somnath Nag, K. Selvakumar, N. Madhavan, S. Muralithar, and R. K. Bhowmik	
Least action and the maximum-coupling approximations in the theory of spontaneous fission (8 pages)	024316
K. Hagino and G. F. Bertsch	
Monopole and dipole transitions of the cluster states of ^{18}O (7 pages)	024317
T. Baba and M. Kimura	
New, low-energy excitations in ^{107}Mo and ^{109}Mo (9 pages)	024318
W. Urban, T. Rząca-Urban, J. Wiśniewski, J. Kurpeta, A. Płochocki, J. P. Greene, A. G. Smith, and G. S. Simpson	
Decay scheme of ^{50}V (8 pages)	024319
F. A. Danevich, M. Hult, D. V. Kasperovych, V. R. Klavdiienko, G. Lutter, G. Marissens, O. G. Polischuk, and V. I. Tretyak	
Improved precision on the experimental $E0$ decay branching ratio of the Hoyle state (11 pages)	024320
T. K. Eriksen, T. Kibédi, M. W. Reed, A. E. Stuchbery, K. J. Cook, A. Akber, B. Alshahrani, A. A. Avaa, K. Banerjee, A. C. Berriman, L. T. Bezzina, L. Bignell, J. Buete, I. P. Carter, B. J. Coombes, J. T. H. Dowie, M. Dasgupta, L. J. Evitts, A. B. Garnsworthy, M. S. M. Gerathy, T. J. Gray, D. J. Hinde, T. H. Hoang, S. S. Hota, E. Ideguchi, P. Jones, G. J. Lane, B. P. McCormick, A. J. Mitchell, N. Palalani, T. Palazzo, M. Ripper, E. C. Simpson, J. Smallcombe, B. M. A. Swinton-Bland, T. Tanaka, T. G. Tornyi, and M. O. de Vries	
Structure of ^{33}Si and the magicity of the $N = 20$ gap at $Z = 14$ (10 pages)	024321
S. Jongile, A. Lemasson, O. Sorlin, M. Wiedeking, P. Papka, D. Bazin, C. Borcea, R. Borcea, A. Gade, H. Iwasaki, E. Khan, A. Lepailleur, A. Mutschler, F. Nowacki, F. Recchia, T. Roger, F. Rotaru, M. Stanoiu, S. R. Stroberg, J. A. Tostevin, M. Vandebrouck, D. Weisshaar, and K. Wimmer	
Decay studies of the long-lived states in ^{186}Tl (9 pages)	024322
M. Stryczyk <i>et al.</i> (IDS Collaboration)	
Collective 2p-2h intruder states in ^{118}Sn studied via β decay of ^{118}In using the GRIFFIN spectrometer at TRIUMF (11 pages)	024323
K. Ortner, C. Andreoiu, M. Spieker, G. C. Ball, N. Bernier, H. Bidaman, V. Bildstein, M. Bowry, D. S. Cross, M. R. Dunlop, R. Dunlop, F. H. Garcia, A. B. Garnsworthy, P. E. Garrett, J. Henderson, J. Measures, B. Olaizola, J. Park, C. M. Petrache, J. L. Pore, K. Raymond, J. K. Smith, D. Southall, C. E. Svensson, M. Ticu, J. Turko, K. Whitmore, and T. Zidar	
Improved description of light nuclei through chiral effective field theory at leading order (10 pages)	024324
M. Sánchez Sánchez, N. A. Smirnova, A. M. Shirokov, P. Maris, and J. P. Vary	
$\alpha + ^{28}\text{Si}$ and $^{16}\text{O} + ^{16}\text{O}$ molecular states and their isoscalar monopole strengths (8 pages)	024325
Masaaki Kimura and Yasutaka Taniguchi	
Using isotope shift for testing nuclear theory: The case of nobelium isotopes (8 pages)	024326
Saleh O. Allehabi, V. A. Dzuba, V. V. Flambaum, A. V. Afanasjev, and S. E. Agbemava	
β decay of ^{132}In and spectroscopy of ^{132}Sn and ^{131}Sb with the GRIFFIN spectrometer (12 pages)	024327
K. Whitmore, C. Andreoiu, F. H. Garcia, K. Ortner, J. D. Holt, T. Miyagi, G. C. Ball, N. Bernier, H. Bidaman, V. Bildstein, M. Bowry, D. S. Cross, M. R. Dunlop, R. Dunlop, A. B. Garnsworthy, P. E. Garrett, J. Henderson, J. Measures, B. Olaizola, J. Park, C. M. Petrache, J. L. Pore, J. K. Smith, D. Southall, C. E. Svensson, M. Ticu, J. Turko, and T. Zidar	

(Continued)

CONTENTS - Continued

PHYSICAL REVIEW C

THIRD SERIES, VOLUME 102, NUMBER 2

AUGUST 2020

Centrifugal effects in $N\Delta$ states (9 pages)	024002
J. A. Niskanen	
Nuclear Structure	
Isomeric and β -decay spectroscopy of $^{173,174}\text{Ho}$ (8 pages)	024301
J. J. Liu <i>et al.</i>	
Mass relations of mirror nuclei (5 pages)	024302
Y. Y. Zong, C. Ma, Y. M. Zhao, and A. Arima	
Comparative analysis of muon-capture and $0\nu\beta\beta$ -decay matrix elements (9 pages)	024303
L. Jokiniemi and J. Suhonen	
Nucleon pair shell model in M scheme (14 pages)	024304
B. C. He (何秉承), Lei Li (李磊), Y. A. Luo (罗延安), Y. Zhang (张宇), F. Pan (潘峰), and J. P. Draayer	
Nonparametric Bayesian approach to extrapolation problems in configuration interaction methods (11 pages)	024305
Sota Yoshida	
Nucleus giant resonances from an improved isospin-dependent Boltzmann-Uehling-Uhlenbeck transport approach (9 pages)	024306
Jun Xu and Wen-Tao Qin	
Novel ansatz for charge radii in density functional theories (6 pages)	024307
Rong An, Li-Sheng Geng, and Shi-Sheng Zhang	
Proton capture resonant state of ^{15}O at 7556 keV (9 pages)	024308
Sathi Sharma, Arkabrata Gupta, M. Roy Chowdhury, A. Mandal, A. Bisoi, V. Nanal, L. C. Tribedi, and M. Saha Sarkar	
Gamow-shell-model description of Li isotopes and their mirror partners (10 pages)	024309
X. Mao (毛兴泽), J. Rotureau, W. Nazarewicz, N. Michel, R. M. Id Betan, and Y. Jaganathen	
Variational approach for pair optimization in the nucleon pair approximation (15 pages)	024310
Y. Lei (雷杨), H. Jiang (姜慧), and S. Pittel	
Landscape of pear-shaped even-even nuclei (12 pages)	024311
Yuchen Cao (曹宇晨), S. E. Agbemava, A. V. Afanasjev, W. Nazarewicz, and E. Olsen	
Laser-assisted decay spectroscopy for the ground states of $^{180,182}\text{Au}$ (16 pages)	024312
R. D. Harding <i>et al.</i>	
Pseudospin symmetry and octupole correlations for multiple chiral doublets in ^{131}Ba (6 pages)	024313
Y. P. Wang, Y. Y. Wang, and J. Meng	
Deformed relativistic Hartree-Bogoliubov theory in continuum with a point-coupling functional:	
Examples of even-even Nd isotopes (19 pages)	024314
Kaiyuan Zhang (张开元), Myung-Ki Cheoun, Yong-Beom Choi, Pooi Seong Chong, Jianmin Dong (董建敏), Lisheng Geng (耿立升), Eunja Ha, Xiaotao He (贺晓涛), Chan Heo, Meng Chit Ho, Eun Jin In, Seonghyun Kim, Youngman Kim, Chang-Hwan Lee, Jenny Lee, Zhipan Li (李志攀), Tianpeng Luo (骆天鹏), Jie Meng (孟杰), Myeong-Hwan Mun, Zhongming Niu (牛中明), Cong Pan (潘琮), Panagiota Papakonstantinou, Xinle Shang (尚新乐), Caiwan Shen (沈彩万), Guofang Shen (申国防), Wei Sun (孙玮), Xiang-Xiang Sun (孙向向), Chi Kin Tam, Thaivayongnou, Chen Wang (王晨), Sau Hei Wong, Xuwei Xia (夏学伟), Yijun Yan (晏一珺), Ryan Wai-Yen Yeung, To Chung Yiu, Shuangquan Zhang (张双全), Wei Zhang (张炜), and Shan-Gui Zhou (周善贵) (DRHBc Mass Table Collaboration)	

(Continued)

PHYSICAL REVIEW CTM

For editorial and subscription correspondence,
please see inside front cover
(ISSN: 2469-9985)

PERIODICALS
Postmaster send address changes to:
PHYSICAL REVIEW C
APS Subscription Services
P.O. Box 41
Annapolis Junction, MD 20701

THIRD SERIES, VOLUME 102, NUMBER 2

CONTENTS

AUGUST 2020

RAPID COMMUNICATIONS

Nuclear Structure

- ☞ Toward a bridge between relativistic and nonrelativistic density functional theories for nuclei (5 pages) 021301(R)
Z. X. Ren and P. W. Zhao

Nuclear Reactions

- Direct and resonant breakup of radioactive ⁷Be nuclei produced in the ¹¹²Sn(⁶Li, ⁷Be) reaction (6 pages) 021601(R)
D. Chattopadhyay, S. Santra, A. Pal, A. Kundu, K. Ramachandran, R. Tripathi, T. N. Nag, and S. Kailas
- Investigation of contributions of the 2₂⁺ resonance in ⁶He via analysis of the ⁶He(*p*, *p'*) reaction (5 pages) 021602(R)
Shoya Ogawa and Takuma Matsumoto

Relativistic Nuclear Collisions

- Signatures of the vortical quark-gluon plasma in hadron yields (6 pages) 021901(R)
Hidetoshi Taya, Aaron Park, Sungtae Cho, Philipp Gubler, Koichi Hattori, Juhee Hong, Xu-Guang Huang, Su Houn Lee, Akihiko Monnai, Akira Ohnishi, Makoto Oka, and Di-Lun Yang (ExHIC-P Collaboration)

Hadronic Physics and QCD

- Frame-independent spatial coordinate $\tilde{z}$: Implications for light-front wave functions, deep inelastic scattering, light-front holography, and lattice QCD calculations (6 pages) 022201(R)
Gerald A. Miller and Stanley J. Brodsky

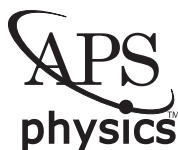
Electroweak Interaction, Symmetries

- Weak charge and weak radius of ¹²C (6 pages) 022501(R)
Oleksandr Koshchii, Jens Erler, Mikhail Gorchtein, Charles J. Horowitz, Jorge Piekarewicz, Xavier Roca-Maza, Chien-Yeah Seng, and Hubert Spiesberger
- New Rosenbluth formula including the Coulomb correction in the second Born approximation (4 pages) 022502(R)
T. Tamae

ARTICLES

Nucleon-Nucleon Interaction, Few-Body Systems

- Two-pion production in the second resonance region in π^-p collisions with the High-Acceptance Di-Electron Spectrometer (HADES) (21 pages) 024001
J. Adamczewski-Musch *et al.* (HADES Collaboration), A. V. Sarantsev, and V. A. Nikonov



Copyright 2020 by American Physical Society



2469-9985(202008)102:2;1-5

(Continued)

☞ The editors and referees of PRC find these papers to be of particular interest, importance, or clarity. Please see our Announcement Phys. Rev. C 86, 010001 (2012).