PHYSICAL REVIEW C

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

PERIODICALS
Postmaster send address changes to:
American Institute of Physics
500 Sunnyside Boulevard
Woodbury, NY 11797-2999

THIRD SERIES, VOLUME 57, NUMBER 1 ***CONTENTS*** **JANUARY 1998**

Announcement iii
Information for Contributors to Physical Review C v
Editorial Policies and Practices of Physical Review C xi
Guidelines for Estimating Length for Physical Review C xv

RAPID COMMUNICATIONS

Triaxial superdeformed bands in ^{86}Zr R1
D. G. Sarantites, D. R. LaFosse, M. Devlin, F. Lerma, V. Q. Wood, J. X. Saladin, D. F. Winchell, C. Baktash, C.-H. Yu, P. Fallon, I. Y. Lee, A. O. Macchiavelli, R. W. MacLeod, A. V. Afanasjev, and I. Ragnarsson

^{6}He+^{209}Bi fusion-fission reaction R6
J. J. Kolata, V. Guimarães, D. Peterson, P. Santi, R. White-Stevens, J. von Schwarzenberg, J. D. Hinnefeld, E. F. Aguilera, E. Martinez-Quiroz, D. A. Roberts, F. D. Becchetti, M. Y. Lee, and R. A. Kryger

Lifetime measurements of highly deformed bands in ^{134,135}Nd and ^{131}Ce R10
C. M. Petrache, R. Wyss, Zs. Podolyák, D. Bazzacco, G. de Angelis, D. de Acuña, M. De Poli, A. Dewald, E. Farnea, J. Gableske, A. Gadea, S. Lunardi, D. R. Napoli, M. N. Rao, C. Rossi Alvarez, T. Scanferla, C. A. Ur, R. Venturelli, P. von Brentano, and L. H. Zhu

Identification of spherical states at low energy in the deformed nucleus ^{185}Pt R15
Johannes von Schwarzenberg, John L. Wood, and Edward F. Zganjar

Full fp shell calculation of ^{52}Sc R19
A. Novoselsky and M. Vallières

Neutron angular distribution from halo breakup R22
Angela Bonaccorso and David M. Brink

Projected shell model analysis of tilted rotation R26
J. A. Sheikh, Y. Sun, and P. M. Walker

Spin content of the nucleon in a valence and sea quark mixing model R31
Di Qing, Xiang-Song Chen, and Fan Wang

Caloric curve in Au+Au collisions R35
C. B. Das and L. Satpathy

ARTICLES

Nucleon-Nucleon Interaction, Few-Body Systems

Inclusive scattering of polarized electrons on polarized ^{3}He: Effects of final state interaction and the magnetic form factor of the neutron 39
S. Ishikawa, J. Golak, H. Witała, H. Kamada, W. Glöckle, and D. Hüber

Efimov effect in the distorted cluster state representation 50
Aleksandr Estrin, Marijan Koštrun, and Yukap Hahn

QCD sum rules: Isospin symmetry breakings in pion-nucleon couplings 61
W-Y. P. Hwang, Ze-sen Yang, Y. S. Zhong, Z. N. Zhou, and Shi-lin Zhu

(Continued)

0556-2813(199801)57:1;1-G

PHYSICAL REVIEW C **THIRD SERIES, VOLUME 57, NUMBER 1** **JANUARY 1998**

Higher resonance contamination of πNN couplings obtained via the three-point function method in QCD sum rules 69
Kim Maltman

Nuclear Structure

Electromagnetic properties of the first 2_1^+ excited states in ^{100,102,104}Ru 76
J. H. Hirata, S. Salém-Vasconcelos, M. J. Bechara, L. C. Gomes, and O. Dietzsch
Level structures of ^{96,97,98}Ru at high angular momentum 83
B. Kharraja, S. S. Ghugre, U. Garg, R. V. F. Janssens, M. P. Carpenter, B. Crowell, T. L. Khoo, T. Lauritsen, D. Nisius, W. Reviol, W. F. Mueller, L. L. Riedinger, and R. Kaczarowski
Evidence for yrast positive-parity high-spin states in odd-odd ^{72}As 97
J. Döring, D. Pantelică, A. Petrovici, B. R. S. Babu, J. H. Hamilton, J. Kormicki, Q. H. Lu, A. V. Ramayya, O. J. Tekyi-Mensah, and S. L. Tabor
Configurations and level structure of ^{219}Rn 104
R. K. Sheline, C. F. Liang, and P. Paris
Lifetime measurements of normally deformed and superdeformed states in ^{82}Sr 113
C.-H. Yu, C. Baktash, M. J. Brinkman, H.-Q. Jin, D. Rudolph, C. J. Gross, M. Devlin, D. R. LaFosse, F. Lerma, D. G. Sarantites, G. N. Sylvan, S. L. Tabor, I. Birriel, J. X. Saladin, D. F. Winchell, V. Q. Wood, R. M. Clark, P. Fallon, I. Y. Lee, A. O. Macchiavelli, J. C. Wells, A. Petrovici, K. W. Schmid, and A. Faessler
Investigation of multiparticle final states in ^{12}C photoreactions 123
P. D. Harty, I. J. D. MacGregor, J. Ahrens, J. R. M. Annand, I. Anthony, R. Beck, D. Branford, G. E. Cross, T. Davinson, P. Grabmayr, S. J. Hall, T. Hehl, J. D. Kellie, T. Lamparter, J. A. MacKenzie, J. C. McGeorge, G. J. Miller, R. O. Owens, M. Sauer, R. Schneider, and K. Spaeth
Systematics of low-lying electric dipole excitations in the $A \simeq 130-200$ mass region 129
C. Fransen, O. Beck, P. von Brentano, T. Eckert, R.-D. Herzberg, U. Kneissl, H. Maser, A. Nord, N. Pietralla, H. H. Pitz, and A. Zilges
Density dependent relativistic mean field theory in deformed nuclei 134
M. L. Cescato and P. Ring
Electric dipole transitions between Gamow-Teller and spin-dipole states 139
Toshio Suzuki, H. Sagawa, and Nguyen Van Giai
Two-nucleon emission in the longitudinal response 145
Giampaolo Co' and Antonio M. Lallena
2_1^+ and 2_2^+ states in collective nuclei as multiple Q-phonon excitations 150
N. Pietralla, T. Mizusaki, P. von Brentano, R. V. Jolos, T. Otsuka, and V. Werner
Hartree-Fock-Bogoliubov description of quasiparticle excitations in the superdeformed wells of ^{191,192}Hg and ^{192,193}Tl 159
P.-H. Heenen and R. V. F. Janssens

Nuclear Reactions

Search for the electromagnetic decay of $\Delta(1232)$ resonance in nuclear matter 166
A. Badalà, R. Barbera, A. Bonasera, M. Gulino, A. Palmeri, G. S. Pappalardo, F. Riggi, A. C. Russo, G. Russo, and R. Turrisi
Most probable charge of fission products in 24 MeV proton induced fission of ^{238}U 178
H. Kudo, M. Maruyama, M. Tanikawa, T. Shinozuka, and M. Fujioka
Energy dependence of the NN t matrix in the optical potential for elastic nucleon-nucleus scattering 189
Ch. Elster and S. P. Weppner
Effects of ρ exchange in coherent pion production 196
P. A. Deutchman and F. Sammarruca

(Continued)

PHYSICAL REVIEW C **THIRD SERIES, VOLUME 57, NUMBER 1** **JANUARY 1998**

Low-energy neutron direct capture by ^{12}C in a dispersive optical potential 202
H. Kitazawa, K. Go, and M. Igashira
Chaos modified wall formula damping of the surface motion of a cavity undergoing fissionlike shape evolutions .. 210
Santanu Pal and Tapan Mukhopadhyay
Energy dependence of breakup cross sections of the halo nucleus ^{8}B and effective interactions 217
C. A. Bertulani, P. Lotti, and H. Sagawa
ϕ photoproduction near threshold with Okubo-Zweig-Iizuka evading ϕNN interactions 223
Robert A. Williams
New precompound decay model: Angular distributions 233
M. Blann and M. B. Chadwick

Relativistic/Ultrarelativistic Nuclear Collisions

Stopping and radial flow in central ^{58}Ni+^{58}Ni collisions between 1A and 2A GeV 244
B. Hong, N. Herrmann, J. L. Ritman, D. Best, A. Gobbi, K. D. Hildenbrand, M. Kirejczyk, Y. Leifels, C. Pinkenburg, W. Reisdorf, D. Schüll, U. Sodan, G. S. Wang, T. Wienold, J. P. Alard, V. Amouroux, N. Bastid, I. Belyaev, G. Berek, J. Biegansky, A. Buta, J. P. Coffin, P. Crochet, B. de Schauenburg, R. Dona, P. Dupieux, M. Eskef, P. Fintz, Z. Fodor, L. Fraysse, A. Genoux-Lubain, G. Goebels, G. Guillaume, E. Häfele, F. Jundt, J. Kecskemeti, M. Korolija, R. Kotte, C. Kuhn, A. Lebedev, I. Legrand, C. Maazouzi, V. Manko, J. Mösner, S. Mohren, W. Neubert, D. Pelte, M. Petrovici, P. Pras, F. Rami, C. Roy, Z. Seres, B. Sikora, V. Simion, K. Siwek-Wilczyńska, A. Somov, L. Tizniti, M. Trzaska, M. A. Vasiliev, P. Wagner, D. Wohlfarth, and A. Zhilin (FOPI Collaboration)
Off-shell effects in dilepton production from hot interacting mesons 254
Song Gao and Charles Gale
Production of minijets (gluons) and strangeness enhancement in pA and AA collisions at relativistic energies 261
Tai An and Sa Ben-Hao
Two-particle interferometry for noncentral heavy-ion collisions 266
Urs Achim Wiedemann
Dileptons from disoriented chiral condensates 280
Yuval Kluger, Volker Koch, Jørgen Randrup, and Xin-Nian Wang

Subnucleon Aspects of Nuclei/Physics of Hadrons

New evaluation of the Baldin sum rule 291
D. Babusci, G. Giordano, and G. Matone
Extraction of electromagnetic properties of the $\Delta(1232)$ excitation from pion photoproduction 295
Th. Wilbois, P. Wilhelm, and H. Arenhövel
Meson-induced correlations of nucleons in nuclear Compton scattering 305
M.-Th. Hütt and A. I. Milstein
Polarization phenomena in small-angle photoproduction of e^+e^- pairs and the Gerasimov-Drell-Hearn sum rule .. 312
A. I. L'vov, S. Scopetta, D. Drechsel, and S. Scherer
Predictive ability of QCD sum rules for decuplet baryons 322
Frank X. Lee
Isovector and isoscalar meson cloud contributions to the nucleon electromagnetic form factors 329
R. Tegen
$U_A(1)$ problem and the role of correlated $q\bar{q}$ exchange in effective theories of QCD 345
M. R. Frank and T. Meissner
Bloom-Gilman duality of inelastic structure functions in nucleon and nuclei 356
G. Ricco, M. Anghinolfi, M. Ripani, S. Simula, and M. Taiuti
Relativistic effect on the deformation of $\Delta(1232)$ in a chiral quark model 367
Yu-bing Dong

(Continued)

PHYSICAL REVIEW C **THIRD SERIES, VOLUME 57, NUMBER 1** **JANUARY 1998**

Electroweak Interaction, Symmetries

Measurement of the induced pseudoscalar coupling using radiative muon capture on hydrogen 373
D. H. Wright, S. Ahmad, D. S. Armstrong, G. Azuelos, W. Bertl, M. Blecher, C. Q. Chen, P. Depommier, B. C. Doyle, T. von Egidy, T. P. Gorringe, P. Gumplinger, M. D. Hasinoff, D. Healey, G. Jonkmans, A. J. Larabee, J. A. Macdonald, S. C. McDonald, M. Munro, J.-M. Poutissou, R. Poutissou, B. C. Robertson, D. G. Sample, E. Saettler, C. N. Sigler, G. N. Taylor, and N. S. Zhang

Nuclear Astrophysics

Stellar neutron capture cross sections of the Nd isotopes 391
K. Wisshak, F. Voss, F. Käppeler, L. Kazakov, and G. Reffo
S-wave pairing of Λ hyperons in dense matter 409
Shmuel Balberg and Nir Barnea

BRIEF REPORTS

α decay of the new isotope ^{206}Ac 417
K. Eskola, P. Kuusiniemi, M. Leino, J. F. C. Cocks, T. Enqvist, S. Hurskanen, H. Kettunen, W. H. Trzaska, J. Uusitalo, R. G. Allatt, P. T. Greenlees, and R. D. Page
Measurement of the analyzing power A_{y0} for the reaction $\mathrm{H}(\vec{p},d)\pi^+$ between 1000 and 1300 MeV 420
J. Goy, C. Furget, S. Kox, A. Pastor, J. S. Real, J. Arvieux, E. J. Beise, L. Bimbot, E. Brash, H. Breuer, G. Collins, F. Duncan, J. E. Ducret, M. Garçon, R. Gilman, C. Glashausser, V. P. Ladygine, M. Morlet, F. Merchez, P. Rutt, E. Tomasi-Gustaffson, and E. Voutier
Isoscalar S-wave π-N scattering length a^+ from π-deuteron scattering 424
S. R. Beane, V. Bernard, T.-S. H. Lee, and Ulf-G. Meißner
Evolution of nuclear structure in O(6)-like nuclei 427
N. V. Zamfir, W.-T. Chou, and R. F. Casten
Average angular momentum in fusion reactions deduced from evaporation-residue cross sections 430
O. A. Capurro and D. E. DiGregorio
K^+ production in baryon-baryon and heavy-ion collisions 434
G. Q. Li, C. M. Ko, and W. S. Chung
Scalar correlations in a quark plasma and low mass dilepton production 438
D. Blaschke, Yu. L. Kalinovsky, S. Schmidt, and H.-J. Schulze
Superdeformation in ^{145}Sm 442
D. S. Haslip, S. Flibotte, G. de France, M. Devlin, A. Galindo-Uribarri, G. Gervais, D. R. LaFosse, I. Y. Lee, F. Lerma, A. O. Macchiavelli, R. W. MacLeod, S. M. Mullins, J. M. Nieminen, D. G. Sarantites, C. E. Svensson, J. C. Waddington, and J. N. Wilson
Can the magnetic moment contribution explain the A_y puzzle? 445
V. G. J. Stoks
Nuclear medium modifications of the NN interaction via quasielastic $(\vec{p},\vec{p}\,')$ and $(\vec{p},\vec{n})$ scattering 448
G. C. Hillhouse, B. I. S van der Ventel, S. M. Wyngaardt, and P. R. De Kock

Selected Abstracts from Physical Review D 452
Cumulative Author Index 454