

HEAVY-ION NUCLEAR PHYSICS RESEARCH

- Reevaluation of the $^{22}\text{Na}(p,\gamma)$ Reaction Rate: Implications for the Detection of ^{22}Na Gamma Rays from Novae
D. G. Jenkins, C. J. Lister, R. V. F. Janssens, T. L. Khoo, E. F. Moore, K. E. Rehm, B. Truett, A. H. Wuosmaa, M. Freer, B. R. Fulton, and J. José
Phys. Rev. Lett. **92**, 031101/1-4 (2004)
- Lowest Excitations in ^{56}Ti and the Predicted $N = 34$ Shell Closure
S. N. Liddick, P. F. Mantica, R. V. F. Janssens, R. Broda, B. A. Brown, M. P. Carpenter, B. Fornal, M. Honma, T. Mizusaki, A. C. Morton, W. F. Mueller, T. Otsuka, J. Pavan, A. Stolz, S. L. Tabor, B. E. Tomlin, and M. Wiedeking
Phys. Rev. Lett. **92**, 072502/1-4 (2004)
- Is the Nuclear Spin-Orbit Interaction Changing with Neutron Excess?
J. P. Schiffer, S. J. Freeman, J. A. Caggiano, C. Deibel, A. Heinz, C.-L. Jiang, R. Lewis, A. Parikh, P. D. Parker, K. E. Rehm, S. Sinha, and J. S. Thomas
Phys. Rev. Lett. **92**, 162501/1-4 (2004)
- Precise Mass Measurement of ^{68}Se , a Waiting-Point Nuclide Along the rp Process
J. A. Clark, G. Savard, K. S. Sharma, J. Vaz, J. C. Wang, Z. Zhou, A. Heinz, B. Blank, F. Buchinger, J. E. Crawford, S. Gulick, J. K. P. Lee, A. F. Levand, D. Seweryniak, G. D. Sprouse, and W. Trimble
Phys. Rev. Lett. **92**, 192501/1-4 (2004)
- Influence of Nuclear Structure on Sub-Barrier Hindrance in Ni + Ni Fusion
C. L. Jiang, K. E. Rehm, R. V. F. Janssens, H. Esbensen, I. Ahmad, B. B. Back, P. Collon, C. N. Davids, J. P. Greene, D. J. Henderson, G. Mukherjee, R. C. Pardo, M. Paul, T. O. Pennington, D. Seweryniak, S. Sinha, and Z. Zhou
Phys. Rev. Lett. **93**, 012701/1-4 (2004)
- Pseudorapidity Distribution of Charged Particles in $d + \text{Au}$ Collisions at $\sqrt{s_{NN}} = 200$ GeV
B. B. Back *et al.* (PHOBOS Collaboration)
Phys. Rev. Lett. **93**, 082301/1-5 (2004)
- New Half-Life Measurement of ^{182}Hf : Improved Chronometer for the Early Solar System
C. Vockenhuber, F. Oberli, M. Bichler, I. Ahmad, G. Quitté, M. Meier, A. N. Halliday, D.-C. Lee, W. Kutschera, P. Steier, R. J. Gehrke, and R. G. Helmer
Phys. Rev. Lett. **93**, 172501/1-4 (2004)
- Charged Hadron Transverse Momentum Distributions in Au + Au Collisions at $\sqrt{s_{NN}} = 200$ GeV
B. B. Back *et al.* (PHOBOS Collaboration)
Phys. Lett. **B578**, 297-303 (2004)
- Identification of Yrast High- K Isomers in ^{177}Lu and Characterisation of ^{177m}Lu
G. D. Dracoulis, F. G. Kondev, G. J. Lane, A. P. Byrne, T. Kibédi, I. Ahmad, M. P. Carpenter, S. J. Freeman, R. V. F. Janssens, N. J. Hammond, T. Lauritsen, C. J. Lister, G. Mukherjee, D. Seweryniak, P. Chowdhury, S. K. Tandel, and R. Gramer
Phys. Lett. **B584**, 22-30 (2004)
- Complete Structure Determination of the Astrophysically Important Nucleus ^{20}Ne Below the Proton Threshold
D. Seweryniak, P. J. Woods, B. Blank, M. P. Carpenter, T. Davinson, S. J. Freeman, J. Görres, A. Heinz, R. V. F. Janssens, H. Mahmud, T. L. Khoo, Z. Liu, G. Mukherjee, E. Rehm, F. Sarazin, J. Shergur, M. Shawcross, S. Sinha, and A. Woehr
Phys. Lett. **B590**, 170-175 (2004)

- The Influence of $\nu h_{11/2}$ Occupancy on the Magnetic Moments of Collective 2^+ States in $A \sim 100$ Fission Fragments
A. G. Smith, D. Patel, G. S. Simpson, R. M. Wall, J. F. Smith, O. J. Onakanmi, I. Ahmad, J. P. Greene, M. P. Carpenter, T. Lauritsen, C. J. Lister, R. V. F. Janssens, F. G. Kondev, D. Seweryniak, B. J. P. Gall, O. Dorvaux, and B. Roux
Phys. Lett. **B591**, 55-60 (2004)
- Proton Decay of the Highly Deformed Odd-Odd Nucleus ^{130}Eu
C. N. Davids, P. J. Woods, H. Mahmud, T. Davinson, A. Heinz, J. J. Ressler, K. Schmidt, D. Seweryniak, J. Shergur, A. A. Sonzogni, and W. B. Walters
Phys. Rev. C **69**, 011302(R)/1-3 (2004)
- Proton Decay of the Highly Deformed Nucleus ^{135}Tb
P. J. Woods, P. Munro, D. Seweryniak, C. N. Davids, T. Davinson, A. Heinz, H. Mahmud, F. Sarazin, J. Shergur, W. B. Walters, and A. Woehr
Phys. Rev. C **69**, 051302(R)/1-3 (2004)
- Analysis of Heavy-Ion Fusion Reactions at Extreme Sub-Barrier Energies
C. L. Jiang, H. Esbensen, B. B. Back, R. V. F. Janssens, and K. E. Rehm
Phys. Rev. C **69**, 014604/1-6 (2004)
- High-Precision Measurement of the Half-Life of ^{62}Ga
B. Blank, G. Savard, J. Döring, A. Blazhev, G. Canchel, M. Chartier, D. Henderson, Z. Janas, R. Kirchner, I. Mukha, E. Roeckl, K. Schmidt, and J. Żylicz
Phys. Rev. C **69**, 015502/1-7 (2004)
- Observation of Octupole Excitations in ^{141}Cs and ^{143}Cs Nuclei
W. Urban, T. Rzača-Urban, J. L. Durell, W. R. Phillips, A. G. Smith, B. J. Varley, N. Schulz, and I. Ahmad
Phys. Rev. C **69**, 017305/1-4 (2004)
- Low-Lying Levels in ^{15}F and the Shell Model Potential for Drip-Line Nuclei
V. Z. Goldberg, G. G. Chubarian, G. Tabacaru, L. Trache, R. E. Tribble, A. Aprahamian, G. V. Rogachev, B. B. Skorodumov, and X. D. Tang
Phys. Rev. C **69**, 031302/1-5 (2004)
- Decay Rate of Triaxially Deformed Proton Emitters
Cary N. Davids and Henning Esbensen
Phys. Rev. C **69**, 034314/1-9 (2004)
- High-Spin Study of Rotational Structures in ^{72}Br
C. D. O'Leary, R. Wadsworth, P. Fallon, C. E. Svensson, I. Ragnarsson, D. E. Appelbe, R. A. E. Austin, G. C. Ball, J. A. Cameron, M. P. Carpenter, R. M. Clark, M. Cromaz, M. A. Deleplanque, R. M. Diamond, D. F. Hodgson, R. V. F. Janssens, D. G. Jenkins, N. S. Kelsall, G. L. Lane, C. J. Lister, A. O. Macchiavelli, D. Sarantites, F. S. Stephens, D. Seweryniak, K. Vetter, J. C. Waddington, and D. Ward
Phys. Rev. C **69**, 034316/1-10 (2004)
- High-Angular-Momentum Structures in ^{64}Zn
D. Karlgren, R. M. Clark, I. Ragnarsson, C. E. Svensson, D. Ward, R. Wyss, C. Andreoiu, R. A. E. Austin, M. P. Carpenter, M. Cromaz, M. A. Deleplanque, R. M. Diamond, P. Fallon, A. Görgen, R. V. F. Janssens, T. L. Khoo, F. Kondev, G. J. Lane, T. Lauritsen, I. Y. Lee, A. O. Macchiavelli, T. Roderger, D. Rudolph, D. G. Sarantites, D. Seweryniak, T. Steinhardt, F. S. Stephens, O. Thelen, K. Vetter, and J. C. Waddington
Phys. Rev. C **69**, 034330/1-13 (2004)

High-Spin Spectroscopy and Quasiparticle Alignments in $^{124,125}\text{Ce}$

J. F. Smith, V. Medina-Chico, C. J. Chiara, M. P. Carpenter, C. N. Davids, M. Devlin, J. L. Durell, D. B. Fossan, S. J. Freeman, R. V. F. Janssens, D. R. LaFosse, M. J. Leddy, P. Reiter, D. G. Sarantites, D. Seweryniak, K. Starosta, R. Wadsworth, A. N. Wilson, and J. N. Wilson
Phys. Rev. C **69**, 034339/1-20 (2004)

Production of ϕ Mesons in Au + Au Collisions at 11.7 A GeV/c

B. B. Back *et al.* (E917 Collaboration)
Phys. Rev. C **69**, 054901/1-13 (2004)

Determination of the Direct Capture Contribution for $^{13}\text{N} (p,\gamma)^{14}\text{O}$ from the $^{14}\text{Q} \rightarrow ^{13}\text{N} + p$ Asymptotic Normalization Coefficient

Xiaodong Tang, A. Azhari, Changbo Fu, C. A. Gagliardi, A. M. Mukhamedzhanov, F. Pirlepesov, L. Trache, R. E. Tribble, V. Burjan, V. Kroha, F. Carstoiu, and B. F. Irgaziev
Phys. Rev. C **69**, 055807/1-9 (2004)

Low-Lying Levels in ^{59}Cr : Inadequacy of the fp Model Space and Onset of Deformation

S. J. Freeman, R. V. F. Janssens, B. A. Brown, M. P. Carpenter, S. M. Fischer, N. J. Hammond, M. Honma, T. Lauritsen, C. J. Lister, T. L. Khoo, G. Mukherjee, D. Seweryniak, J. F. Smith, B. J. Varley, M. Whitehead, and S. Zhu
Phys. Rev. C **69**, 064301/1-7 (2004)

High-Spin States in ^{179}Au : Spectroscopy of Shape-Driving Orbitals Beyond the Neutron Midshell

W. F. Mueller, W. Reviol, M. P. Carpenter, R. V. F. Janssens, F. G. Kondev, K. Abu Saleem, I. Ahmad, H. Amro, C. R. Bingham, J. Caggiano, C. N. Davids, D. Hartley, A. Heinz, B. Herskind, D. Jenkins, T. L. Khoo, T. Lauritsen, W. C. Ma, J. Ressler, L. L. Riedinger, D. G. Sarantites, D. Seweryniak, S. Siem, A. A. Sonzogni, J. Uusitalo, P. G. Varmette, I. Wiedenhöver, and R. Wadsworth
Phys. Rev. C **69**, 064315/1-10 (2004)

In-Beam Electron Spectroscopy of ^{226}U and ^{254}No

R. D. Humphreys, P. A. Butler, J. E. Bastin, P. T. Greenlees, N. J. Hammond, R.-D. Herzberg, D. G. Jenkins, G. D. Jones, H. Kankaanpää, A. Keenan, H. Kettunen, T. Page, P. Rahkila, C. Scholey, J. Uusitalo, N. Amzal, P. M. T. Brew, K. Eskola, J. Gerl, K. Hauschild, K. Helariutta, F.-P. Heßberger, A. Hürstel, P. M. Jones, R. Julin, S. Juutinen, T.-L. Khoo, W. Korten, P. Kuusiniemi, Y. Le Coz, M. Leino, A.-P. Leppänen, M. Muikku, P. Nieminen, S. W. Ødegard, J. Pakarinen, P. Reiter, G. Sletten, Ch. Theisen, and H.-J. Wollersheim
Phys. Rev. C **69**, 064324/1-6 (2004)

Measurements of ^{17}F Scattering by ^{208}Pb with a New Type of Large Solid Angle Detector Array

M. Romoli, E. Vardaci, M. Di Pietro, A. De Francesco, A. De Rosa, G. Inghima, M. La Commara, B. Martin, D. Pierrousakou, M. Sandoli, M. Mazzocco, T. Glodariu, P. Scopel, C. Signorini, R. Bonetti, A. Guglielmetti, F. Soramel, L. Stroe, J. Greene, A. Heinz, D. Henderson, C. L. Jiang, E. F. Moore, R. C. Pardo, E. E. Rehm, A. Wuosmaa, and J. F. Liang
Phys. Rev. C **69**, 064614/1-8 (2004)

Centrality Dependence of Charged Antiparticle to Particle Ratios Near Midrapidity in $d + \text{Au}$ Collisions at $\sqrt{s_{NN}} = 200 \text{ GeV}$

B. B. Back *et al.* (The PHOBOS Collaboration)
Phys. Rev. C **70**, 011901(R)/1-5 (2004)

 Q Value of the Superallowed Decay of ^{22}Mg and the Calibration of the $^{21}\text{Na}(p,\gamma)$ Experiment

G. Savard, J. A. Clark, F. Buchinger, J. E. Crawford, S. Gulick, J. C. Hardy, A. A. Hecht, V. E. Jacob, J. K. P. Lee, A. F. Levand, B. F. Lungren, N. D. Scielzo, K. S. Sharma, I. Tanihata, I. S. Towner, W. Trimble, J. C. Wang, Y. Wang, and Z. Zhou
Phys. Rev. C **70**, 042501(R)/1-4 (2004)

Particle Production at Very Low Transverse Momenta in Au + Au Collisions at $\sqrt{s_{NN}} = 200$ GeV

B. B. Back, M. D. Baker, M. Ballintijn, D. S. Barton, R. R. Betts, A. A. Bickley, R. Bindel, A. Budzanowski, W. Busza, A. Carroll, M. P. Decowski, E. Garcia, N. George, K. Gulbrandsen, S. Gushue, C. Halliwell, J. Hamblen, G. A. Heintzelman, C. Henderson, D. J. Hofman, R. S. Hollis, R. Holyński, B. Holzman, A. Iordanova, E. Johnson, J. L. Kane, J. Katzy, N. Khan, W. Kucewicz, P. Kulinich, C. M. Kuo, W. T. Lin, S. Manly, D. McLeod, A. C. Mignerey, R. Nouicer, A. Olszewski, R. Pak, I. C. Park, H. Pernegger, C. Reed, L. P. Remsberg, M. Reuter, C. Roland, G. Roland, L. Rosenberg, J. Sagerer, P. Sarin, P. Sawicki, W. Skulski, S. G. Steadman, P. Steinberg, G. S. F. Stephans, A. Sukhanov, J.-L. Tang, A. Trzupek, C. Vale, G. J. van Nieuwenhuizen, R. Verrier, F. L. H. Wolfs, B. Wosiek, K. Woźniak, A. H. Wousmaa, and B. Wyslouch

Phys. Rev. C **70**, 051901(R)/1-4 (2004)

Pseudorapidity Dependence of Charged Hadron Transverse Momentum Spectra in $d + Au$ Collisions at $\sqrt{s_{NN}} = 200$ GeV

B. B. Back *et al.* (PHOBOS Collaboration)

Phys. Rev. C **70**, 061901(R)/1-3 (2004)

Excitation Energies and Spins of the Yrast Superdeformed Band in ^{191}Hg

S. Siem, P. Reiter, T. L. Khoo, T. Lauritsen, P.-H. Heenen, M. P. Carpenter, I. Ahmad, H. Amro, I. Calderin, T. Døssing, T. Duguet, S. M. Fischer, U. Garg, D. Gassmann, G. Hackman, F. Hannachi, K. Hauschild, R. V. F. Janssens, B. Kharraja, A. Korchi, I.-Y. Lee, A. Lopez-Martens, A. O. Macchiavelli, E. F. Moore, D. Nisius, and C. Schück

Phys. Rev. C **70**, 014303/1-10 (2004)

 γ -Spectroscopy of Core-Excited States in ^{51}Mn

J. Ekman, D. Rudolph, C. Andreoiu, C. Fahlander, M. N. Mineeva, M. A. Bentley, S. J. Williams, R. Charity, E. Ideguchi, W. Reviol, D. G. Sarantites, V. Tomov, R. M. Clark, M. Cromaz, P. Fallon, A. O. Macchiavelli, M. P. Carpenter, and D. Seweryniak

Phys. Rev. C **70**, 014306/1-14 (2004)

Shape Coexistence and Band Crossings in ^{174}Pt

J. T. M. Goon, D. J. Hartley, L. L. Riedinger, M. P. Carpenter, F. G. Kondev, R. V. F. Janssens, K. H. Abu Saleem, I. Ahmad, H. Amro, J. A. Cizewski, C. N. Davids, M. Danchev, T. L. Khoo, A. Heinz, C. J. Lister, T. Lauritsen, W. C. Ma, G. L. Poli, J. Ressler, D. Seweryniak, I. Wiedenhöver, W. Reviol, M. Smith, and Jing-ye Zhang

Phys. Rev. C **70**, 014309/1-6 (2004)

Rotational Bands in Neutron-Rich $^{169,171,172}\text{Er}$

C. Y. Wu, D. Cline, M. W. Simon, R. Teng, K. Vetter, M. P. Carpenter, R. V. F. Janssens, and I. Wiedenhöver

Phys. Rev. C **70**, 014313/1-7 (2004)

Collision Geometry Scaling of Au + Au Pseudorapidity Density from $\sqrt{s_{NN}} = 19.6$ to 200 GeV

B. B. Back *et al.* (PHOBOS Collaboration)

Phys. Rev. C **70**, 021902/1-5 (2004)

Alignments in the Odd-Proton Actinides ^{237}Np and ^{241}Am

K. Abu Saleem, R. V. F. Janssens, M. P. Carpenter, F. G. Kondev, I. Wiedenhöver, I. Ahmad, J. Caggiano, P. Chowdhury, J. A. Cizewski, D. Cline, M. Devlin, N. Fotiades, J. P. Greene, G. Hackman, A. Heinz, T. L. Khoo, T. Lauritsen, C. J. Lister, A. O. Macchiavelli, E. H. Seabury, D. Seweryniak, A. Sonzogni, and C. Y. Wu

Phys. Rev. C **70**, 024310/1-15 (2004)

Probing the Sustainability of the $N = 82$ and $Z = 50$ Shell Closures for Neutron-Rich Nuclides: Decay of $^{120}\text{Rh}_{75}$ to Levels of $^{120}\text{Pd}_{74}$

W. B. Walters, B. E. Tomlin, P. F. Mantica, B. A. Brown, J. Rikovska Stone, A. D. Davies, A. Estrade, P. T. Hosmer, N. Hoteling, S. N. Liddick, T. J. Mertzimekis, F. Montes, A. C. Morton, W. F. Mueller, M. Ouellette, E. Pellegrini, P. Santi, D. Seweryniak, H. Schatz, J. Shergur, and A. Stolz
Phys. Rev. C **70**, 034314/1-5 (2004)

Absolute Intensities of γ Rays in ^{182}Hf Decay

I. Ahmad, J. P. Greene, E. F. Moore, W. Kutschera, and C. Vockenhuber
Phys. Rev. C **70**, 047301/1-3 (2004)

Highly-Deformed Bands in ^{175}Hf

D. T. Scholes, D. M. Cullen, F. G. Kondev, R. V. F. Janssens, M. P. Carpenter, D. J. Hartley, M. K. Djongolov, G. Sletten, G. Hagemann, C. Wheldon, P. M. Walker, K. Abu Saleem, I. Ahmad, D. L. Balabanski, P. Chowdhury, M. Danchev, G. D. Dracoulis, H. M. El-Masri, J. Goon, A. Heinz, R. A. Kaye, T. L. Khoo, T. Lauritsen, C. J. Lister, E. F. Moore, L. L. Riedinger, M. A. Riley, D. Seweryniak, I. Shestakova, I. Wiedenhöver, O. Zeidan, and Jing-ye Zhang
Phys. Rev. C **70**, 054314/1-8 (2004)

Core Excited States in the $A = 51$ Mirror Nuclei

J. Ekman, C. Andreoiu, C. Fahlander, M. N. Mineeva, D. Rudolph, M. A. Bentley, S. J. Williams, R. J. Charity, E. Ideguchi, W. Reviol, D. G. Sarantites, V. Tomov, R. M. Clark, M. Cromaz, P. Fallon, A. O. Macchiavelli, M. P. Carpenter, and D. Seweryniak
Phys. Rev. C **70**, 057305/1-4 (2004)

Near-Yrast, Medium-Spin Structure of the ^{107}Tc Nucleus

W. Urban, T. Rzača-Urban, J. L. Durell, A. G. Smith, and I. Ahmad
Phys. Rev. C **70**, 057308/1-4 (2004)

Development of Shell Closures at $N = 32, 34$. I. β Decay of Neutron-Rich Sc Isotopes

S. N. Liddick, P. F. Mantica, R. Broda, B. A. Brown, M. P. Carpenter, A. D. Davies, B. Fornal, T. Glasmacher, D. E. Groh, M. Honma, M. Horoi, R. V. F. Janssens, T. Mizusakik, D. J. Morrissey, A. C. Morton, W. F. Mueller, T. Otsuka, J. Pavan, H. Schatz, A. Stolz, S. L. Tabor, B. E. Tomlin, and M. Wiedeking
Phys. Rev. C **70**, 064303/1-9 (2004)

Development of Shell Closures at $N = 32, 34$. II: Lowest Yrast Excitations in Even-Even Ti Isotopes from Deep Inelastic Heavy-Ion Collisions

B. Fornal, S. Zhu, R. V. F. Janssens, M. Honma, R. Broda, P. F. Mantica, B. A. Brown, M. P. Carpenter, P. J. Daly, S. J. Freeman, Z. W. Grabowski, N. J. Hammond, F. G. Kondev, W. Królas, T. Lauritsen, S. N. Liddick, C. J. Lister, E. F. Moore, T. Otsuka, T. Pawlat, D. Seweryniak, B. E. Tomlin, and J. Wrzesinski
Phys. Rev. C **70**, 064304/1-6 (2004)

Erratum: Low-Lying Levels in ^{59}Cr : Inadequacy of the fp Model Space and Onset of Deformation [Phys. Rev. C **59**, 064301 (2004)]

S. J. Freeman, R. V. F. Janssens, B. A. Brown, M. P. Carpenter, S. M. Fischer, N. J. Hammond, M. Honma, T. Lauritsen, C. J. Lister, T. L. Khoo, G. Mukherjee, D. Seweryniak, J. F. Smith, B. J. Varley, M. Whitehead, and S. Zhu
Phys. Rev. C **70**, 029901(E) (2004)

Erratum to: "Recent Results from PHOBOS at RHIC" [Nucl. Phys. **A721**, 227c (2003)]

B. B. Back *et al.* (PHOBOS Collaboration)
Nucl. Phys. **A733**, 352-354 (2004)

The $N = Z$ rp-Process Waiting-Point Nucleus ^{68}Se and Its Astrophysical Implications

A. Wöhr, A. Aparahamian, P. Boutachkov, J. L. Galache, J. Görres, M. Shawcross, A. Teymurazyan, M. C. Wiescher, D. S. Brenner, C. N. Davids, S. M. Fischer, A. M. Heinz, R. V. F. Janssens, and D. Seweryniak
Nucl. Phys. **A742**, 349-362 (2004)

High-Spin Structure of $N \simeq Z$ Nuclei Around the $A = 72$ Region

N. S. Kelsall, C. E. Svensson, S. Fischer, D. E. Appelbe, R. A. E. Austin, D. P. Balamuth, G. C. Ball, J. A. Cameron, M. P. Carpenter, R. M. Clark, M. Cromaz, M. A. Deleplanque, R. M. Diamond, P. Fallon, D. F. Hodgson, R. V. F. Janssens, D. G. Jenkins, G. J. Lane, C. J. Lister, A. O. Macchiavelli, C. D. O'Leary, D. G. Sarantites, F. S. Stephens, D. C. Schmidt, D. Seweryniak, K. Vetter, J. C. Waddington, R. Wadsworth, D. Ward, A. N. Wilson, A. V. Afanasjev, S. Frauendorf, and I. Ragnarsson
Eur. Phys. J. A **20**, 131-132 (2004)

First Observation of Excited States in the ^{110}Mo Nucleus

W. Urban, T. Rzaça-Urban, J. L. Durell, W. R. Phillips, A. G. Smith, B. J. Varley, I. Ahmad, and N. Schulz
Eur. Phys. J. A **20**, 381-384 (2004)

Isospectral Superdeformed Bands in the $N = 46$ Nuclei ^{88}Mo and ^{89}Tc

K. Lagergren, B. Cederwall, R. M. Clark, P. Fallon, A. Görgen, T. Issa, R. V. F. Janssens, A. Johnson, A. O. Macchiavelli, L. Milechina, D. G. Sarantites, and R. Wyss
Eur. Phys. J. A **21**, 375-381 (2004)

K-Mixing and Fast Decay of a Seven-Quasiparticle Isomer in ^{179}Ta

F. G. Kondev, G. D. Dracoulis, G. J. Lane, I. Ahmad, A. P. Byrne, M. P. Carpenter, P. Chowdhury, S. J. Freeman, N. J. Hammond, R. V. F. Janssens, T. Kibédi, T. Lauritsen, C. J. Lister, G. Mukherjee, D. Seweryniak, and S. K. Tandel
Eur. Phys. J. A **22**, 23-27 (2004)

New Spins for Ground States and Isomers in ^{115}Pd and ^{117}Pd

W. Urban, A. Zlomaniec, G. Simpson, J. A. Pinston, J. Kurpeta, T. Rzaça-Urban, J. L. Durell, A. G. Smith, B. J. Varley, N. Schulz, and I. Ahmad
Eur. Phys. J. A **22**, 157-161 (2004)

New Bands and Spin-Parity Assignments in ^{111}Ru

W. Urban, T. Rzaça-Urban, Ch. Droste, S. G. Rohoziński, J. L. Durell, W. R. Phillips, A. G. Smith, B. J. Varley, N. Schulz, I. Ahmad, and J. A. Pinston
Eur. Phys. J. A **22**, 231-239 (2004)

The $\nu 9/2[404]$ Orbital and the Deformation in the $A \sim 100$ Region

W. Urban, J. A. Pinston, J. Genevey, T. Rzaça-Urban, A. Zlomaniec, G. Simpson, J. L. Durell, W. R. Phillips, A. G. Smith, B. J. Varley, I. Ahmad, and N. Schulz
Eur. Phys. J. A **22**, 241-252 (2004)

The Frank Karasek Memorial Scholarship Fund Revisited

John P. Greene
Int. Nucl. Target Dev. Society Newsletter **31**, 9 (2004)

Highly Selective Studies of GDR in ^{164}Er

V. Nanal, T. L. Khoo, D. J. Hofman, B. B. Back, M. P. Carpenter, I. Dioszegi, K. Eisenman, M. L. Halbert, P. Heckman, A. M. Heinz, D. Henderson, D. Jenkins, M. P. Kelly, F. G. Kondev, T. Lauritsen, C. J. Lister, B. McClintock, S. Mitsuoka, T. Pennington, J. Seitz, R. H. Siemssen, M. Thoennessen, R. J. van Swol, R. L. Varner, P. Wilt, and Y. Alhassid
Proceedings of the International Conference on Collective Motion in Nuclei Under Extreme Conditions (COMEX 1), Paris, France, June 10-13, 2003; Nucl. Phys. **A731**, 153-159 (2004)

Results from the PHOBOS Experiment at RHIC

Marguerite Belt Tonjes, for the PHOBOS Collaboration

Proceedings of the 8th International Conference on Nucleus-Nucleus Collisions (NN2003), Moscow, Russia, June 17-21, 2003; Nucl. Phys. **A734**, 61-64 (2004)

Nuclear Astrophysics Experiments with Stable and Unstable Beams

K. E. Rehm

Proceedings of the 8th International Conference on Nucleus-Nucleus Collisions (NN2003), Moscow, Russia, June 17-21, 2003; Nucl. Phys. **A734**, 615-622 (2004)Tracking the Monopole Migration of the $\nu 1f_{5/2}$ State Near the $N = 32$ Subshell Closure in Neutron-Rich Nuclei Above ^{48}Ca

S. N. Liddick, P. F. Mantica, R. V. F. Janssens, R. Broda, B. A. Brown, M. P. Carpenter, B. Fornal, A. C. Morton, W. F. Mueller, J. Pavan, A. Stolz, S. L. Tabor, B. E. Tomlin, and M. Wiedeking

Proceedings of the 6th International Conference on Radioactive Nuclear Beams (RNB6), Argonne, IL, September 22-26, 2003; Nucl. Phys. **A746**, 140c-144c (2004)

A Solenoidal Transport Device for Transfer Reactions in Inverse Kinematics

A. H. Wuosmaa, T. Al Tahtamouni, and J. P. Schiffer

Proceedings of the 6th International Conference on Radioactive Nuclear Beams (RNB6), Argonne, IL, September 22-26, 2003; Nucl. Phys. **A746**, 267c-271c (2004)Determination of the ^8B Neutrino Spectrum

W. T. Winter, K. E. Rehm, C. L. Jiang, I. Ahmad, S. J. Freedman, J. Greene, A. Heinz, D. Henderson, R. V. F. Janssens, E. F. Moore, C. Mukherjee, R. C. Pardo, M. Paul, T. Pennington, G. Savard, J. P. Schiffer, D. Seweryniak, and G. Zinkann

Proceedings of the 6th International Conference on Radioactive Nuclear Beams (RNB6), Argonne, IL, September 22-26, 2003; Nucl. Phys. **A746**, 311c-315c (2004)

Precise Mass Measurements of Astrophysical Interest Made with the Canadian Penning Trap Mass Spectrometer

J. A. Clark, R. C. Barber, B. Blank, C. Boudreau, F. Buchinger, J. E. Crawford, S. Gulick, J. C. Hardy, A. Heinz, J. K. P. Lee, A. F. Levand, R. B. Moore, C. Savard, D. Seweryniak, K. S. Sharma, C. D. Sprouse, W. Trimble, J. Vaz, J. C. Wang, and Z. Zhou

Proceedings of the 6th International Conference on Radioactive Nuclear Beams (RNB6), Argonne, IL, September 22-26, 2003; Nucl. Phys. **A746**, 342c-346c (2004)First Studies of the $^8\text{B}(\alpha, p)^{11}\text{C}$ Reaction

K. E. Rehm, C. L. Jiang, J. P. Greene, D. Henderson, R. V. F. Janssens, E. F. Moore, G. Mukherjee, R. C. Pardo, T. Pennington, J. P. Schiffer, S. Sinha, X. D. Tang, R. H. Siemssen, L. Jisonna, R. E. Segel, and A. H. Wuosmaa

Proceedings of the 6th International Conference on Radioactive Nuclear Beams (RNB6), Argonne, IL, September 22-26, 2003; Nucl. Phys. **A746**, 354c-358c (2004)Elastic Scattering of ^{17}F on ^{208}Pb and ^{17}F Breakup Cross Section at Coulomb Barrier Energies

M. Romoli, M. Mazzocco, E. Vardaci, M. Di Pietro, R. Bonetti, A. De Francesco, A. De Rosa, T. Glodariu, A. Guglielmetti, G. Inglima, M. La Commara, B. Martin, D. Pierroutsakou, M. Sandoli, P. Scopel, C. Signorini, F. Soramel, L. Stroe, J. Greene, A. Heinz, D. Henderson, C. L. Jiang, J. F. Liang, E. F. Moore, R. C. Pardo, K. E. Rehm, and A. Wuosmaa

Proceedings of the 6th International Conference on Radioactive Nuclear Beams (RNB6), Argonne, IL, September 22-26, 2003; Nucl. Phys. **A746**, 522c-525c (2004)

Production and Isobaric Separation of ^{63}Ni Ions for Determination of the $^{62}\text{Ni}(n,\gamma)^{63}\text{Ni}$ Reaction Cross Section at Stellar Temperatures

H. Nassar, S. Ghelberg, M. Paul, S. Dababneh, M. Heil, F. Käppeler, R. Plag, I. Ahmad, J. P. Greene, D. J. Henderson, C. L. Jiang, R. C. Pardo, T. Pennington, K. E. Rehm, R. Scott, S. Sinha, X. Tang, R. Vondrasek, H. Koivisto, D. Berkovits, M. Bettan, R. Reifarth, P. Collon, S. O'Brien, and N. Patronis
 Proceedings of the 6th International Conference on Radioactive Nuclear Beams (RNB6), Argonne, IL, September 22-26, 2003; Nucl. Phys. **A746**, 613c-616c (2004)

The Canadian Penning Trap Mass Spectrometer

J. C. Wang, G. Savard, K. S. Sharma, J. A. Clark, Z. Zhou, A. F. Levand, C. Boudreau, F. Buchinger, J. E. Crawford, J. P. Greene, S. Gulick, J. K. P. Lee, G. D. Sprouse, W. Trimble, J. Vaz, and B. J. Zabransky
 Proceedings of the 6th International Conference on Radioactive Nuclear Beams (RNB6), Argonne, IL, September 22-26, 2003; Nucl. Phys. **A746**, 651c-654c (2004)

Using a Wide-Beam Ion Source to Produce Large Area Sputtered Films for Low-Energy Laboratory Studies of Alpha Capture Cross-Sections

John P. Greene, Michael C. Wiescher, and Michael Paul
 Proceedings of the 21st World Conference of the International Nuclear Target Development Society, Argonne, IL, November 4-8, 2002; Nucl. Instrum. Methods **A521**, 12-16 (2004)

Developing a Detection Method of Environmental ^{244}Pu

S. Winkler, I. Ahmad, R. Golser, W. Kutschera, K. A. Orlandini, M. Paul, A. Priller, P. Steier, A. Valenta, and C. Vockenhuber
 Proceedings of the 9th International Conference on Accelerator Mass Spectrometry, Nagoya, Japan, September 9-13, 2002; Nucl. Instrum. Methods **B223-224**, 817-822 (2004)

Oceans Circulation and Electron Cyclotron Resonance Sources: Measurement of the AR-39 Isotopic Ratio in Seawater

M. Gaelens, M. Loiselet, G. Ryckewaert, R. C. Pardo, R. H. Scott, R. Vondrasek, Ph. Collon, and W. Kutschera
 Proceedings of the 10th International Conference on Ion Sources (ICIS2003), Dubna, Russia, September 8-13, 2003; Rev. Sci. Instrum. **75**, 1916-1918 (2004)

The Landscape of Particle Production: Results from PHOBOS

Peter Steinberg (for the PHOBOS Collaboration)
 Proceedings of the 17th International Conference on Ultra Relativistic Nucleus-Nucleus Collisions (Quark Matter 2004), Oakland, CA, January 11-17, 2004; J. Phys. G **30**, S683-S691 (2004)

Rapidity and k_T Dependence of HBT Correlations in Au + Au Collisions at 200 GeV with PHOBOS

Burt Holzman (for the PHOBOS Collaboration)
 Proceedings of the 17th International Conference on Ultra Relativistic Nucleus-Nucleus Collisions (Quark Matter 2004), Oakland, CA, January 11-17, 2004; J. Phys. G **30**, S1049-S1052 (2004)

Pseudorapidity Distributions of Charged Particles in d + Au and p + p Collisions at $\sqrt{s_{NN}} = 200$ GeV

Rachid Nouicer (for the PHOBOS Collaboration)
 Proceedings of the 17th International Conference on Ultra Relativistic Nucleus-Nucleus Collisions (Quark Matter 2004), Oakland, CA, January 11-17, 2004; J. Phys. G **30**, S1133-S1137 (2004)

Identified Hadron Spectra from PHOBOS

Gábor I. Veres (for the PHOBOS Collaboration)
 Proceedings of the 17th International Conference on Ultra Relativistic Nucleus-Nucleus Collisions (Quark Matter 2004), Oakland, CA, January 11-17, 2004; J. Phys. G **30**, S1143-S1147 (2004)

Flow in Au + Au Collisions at RHIC

Marguerite Belt Tonjes (for the PHOBOS Collaboration)

Proceedings of the 17th International Conference on Ultra Relativistic Nucleus-Nucleus Collisions (Quark Matter 2004), Oakland, CA, January 11-17, 2004; J. Phys. G **30**, S1243-S1246 (2004)Charged Particle Multiplicity Fluctuations in Au + Au Collisions $\sqrt{s_{NN}} = 200$ GeV

Krzysztof Wóznik (for the PHOBOS Collaboration)

Proceedings of the 17th International Conference on Ultra Relativistic Nucleus-Nucleus Collisions (Quark Matter 2004), Oakland, CA, January 11-17, 2004; J. Phys. G **30**, S1377-S1380 (2004)

Strip Interpolation in Silicon and Germanium Strip Detectors

Eric A. Wulf, Bernard F. Philips, W. Neil Johnson, James D. Kurfess, C. J. Lister, and Filip Kondev

Proceedings of the IEEE Nuclear Science Symposium and Medical Imaging Conference (NSS-MIC2004), Rome, Italy, October 16-22, 2004, (IEEE Publishing 2004) **2**, 925-929

Systematics of Heavy-Ion Fusion Reactions at Extreme Sub-Barrier Energies

C. L. Jiang, H. Esbensen, K. E. Rehm, B. B. Back, R. V. F. Janssens, C. N. Davids, J. P. Greene, D. J. Henderson, G. Mukherjee, R. C. Pardo, T. O. Pennington, D. Seweryniak, S. Sinha, Z. Zhou, M. Paul, P. Collon, J. A. Caggiano, A. M. Heinz, and I. Nishinaka

Proceedings of the International Conference FUSION03: From a Tunneling Nuclear Microscope to Nuclear Processes in Matter, Matsushima, Miyagi, Japan, November 12-15, 2003; Progress of Theoretical Physics Supplement **154**, 61-68 (2004)

Nuclear Structure at the Limits: Continued Exploration with Gammasphere

R. V. F. Janssens

22nd International Nuclear Physics Conference (INPC2004), Göteborg, Sweden, June 27-July 2, 2004, Book of Abstracts, p. 21 (2004)

Some Aspects of Charged Particle Multiplicity in Ultrarelativistic Au + Au Collisions

B. B. Back *et al.*

22nd International Nuclear Physics Conference (INPC2004), Göteborg, Sweden, June 27-July 2, 2004, Book of Abstracts, p. 164 (2004)

Setting Limits on Nuclear Structure Properties of the Low-Lying 3.5-eV Isomeric State in ^{229}Th

I. Ahmad, K. Bailey, D. L. Bowers, Z.-T. Lu, I. D. Moore, and T. P. O'Connor

22nd International Nuclear Physics Conference (INPC2004), Göteborg, Sweden, June 27-July 2, 2004, Book of Abstracts, p. 342 (2004)

In-Beam Gamma-Ray Spectroscopy of ^{254}No

S. Eckhauadt, N. Amzal, J. E. Bastin, E. Bouchez, P. A. Butler, A. Chatillon, K. Eskola, J. Gerl, T. Grahn, A. Gørgen, P. T. Greenlees, R. D. Herzberg, F. P. Hessberger, A. Hürstel, P. J. C. Ikin, G. D. Jones, P. Jones, R. Julin, S. Juutinen, H. Kettunen, T. L. Khoo, W. Korten, P. Kuusiniemi, Y. Le Coz, M. Leino, A. P. Leppänen, P. Nieminen, J. Pakarinen, J. Perkowski, A. Pritchard, P. Reiter, P. Rahkila, C. Scholey, C. Theisen, J. Uusitalo, K. Van de Vel, J. Wilson, and H. J. Wollersheim

22nd International Nuclear Physics Conference (INPC2004), Göteborg, Sweden, June 27-July 2, 2004, Book of Abstracts, p. 353 (2004)

Strength Distributions for Coupling to Ordered or Chaotic Spectra

T. Døssing, T.-L. Khoo, T. Lauritsen, A. P. Lopez-Martens, and S. Åberg

22nd International Nuclear Physics Conference (INPC2004), Göteborg, Sweden, June 27-July 2, 2004, Book of Abstracts, p. 361 (2004)

Influence of Nuclear Structure on Sub-Barrier Hindrance in Ni + Ni Fusion

C. L. Jiang, K. B. Rehm, R. V. F. Janssens, H. Esbensen, I. Ahmad, B. B. Back, P. Collon, C. N. Davids, J. P. Greene, D. J. Henderson, G. Mukherjee, R. C. Pardo, M. Paul, T. O. Pennington, D. Seweryniak, S. Sinha, and Z. Zhou
22nd International Nuclear Physics Conference (INPC2004), Göteborg, Sweden, June 27-July 2, 2004, Book of Abstracts, p. 456 (2004)

Proton Single-Particle States in the Heaviest Actinide Nuclei

I. Ahmad, F. G. Kondev, E. F. Moore, R. R. Chasman, J. P. Greene, M. P. Carpenter, C. J. Lister, R. V. F. Janssens, T. Lauritsen, D. Seweryniak, R. W. Hoff, J. E. Evans, R. W. Loughheed, C. E. Porter, L. K. Felker
Conference on "Nuclei at the Limits", Argonne, IL, July 26-30, 2004, Book of Abstracts, p. 4 (2004)

Spherical and Deformed Structures in ^{189}Pb

A. M. Baxter, G. D. Dracoulis, A. P. Byrne, T. Kibédi, P. M. Davidson, R. V. F. Janssens, M. P. Carpenter, C. N. Davids, T. L. Khoo, and T. Lauritsen
Conference on "Nuclei at the Limits", Argonne, IL, July 26-30, 2004, Book of Abstracts, p. 10 (2004)

First Measurement of Excited States in ^{181}Tl

M. P. Carpenter, F. G. Kondev, R. V. F. Janssens, D. Seweryniak, G. Mukherjee, I. Ahmad, C. N. Davids, S. Freeman, G. Jones, N. Hammond, D. G. Jenkins, T. L. Khoo, A. J. Larabee, T. Lauritsen, N. Liechty, C. J. Lister, E. F. Moore, P. Raddon, S. Sinha, and R. Wadsworth
Conference on "Nuclei at the Limits", Argonne, IL, July 26-30, 2004, Book of Abstracts, p. 22 (2004)

First Observation of Excited States in the $T = -1$, Odd-Odd Nucleus ^{48}Mn

C. Chandler, M. A. Bentley, M. P. Carpenter, C. N. Davids, R. Du Rietz, J. Ekman, S. J. Freeman, P. E. Garrett, G. Hammond, R. V. F. Janssens, and D. Seweryniak
Conference on "Nuclei at the Limits", Argonne, IL, July 26-30, 2004, Book of Abstracts, p. 25 (2004)

Decay Rate of Triaxially Deformed Proton Emitters

Cary N. Davids and Henning Esbensen
Conference on "Nuclei at the Limits", Argonne, IL, July 26-30, 2004, Book of Abstracts, p. 36 (2004)

Recoil-Decay Tagging Study of ^{146}Tm

C. N. Davids, A. Robinson, D. Seweryniak, P. J. Woods, B. Blank, M. P. Carpenter, T. Davinson, S. J. Freeman, N. Hammond, N. Hoteling, R. F. V. Janssens, Z. Liu, G. Mukherjee, J. Shergur, S. Sinha, A. A. Sonzogni, W. B. Walters, and A. Woehr
Conference on "Nuclei at the Limits", Argonne, IL, July 26-30, 2004, Book of Abstracts, p. 37 (2004)

Reduced Transition Probabilities to the First 2^+ State in $^{52,54,56}\text{Ti}$

D.-C. Dinca, R. V. F. Janssens, A. Gade, D. Bazin, R. Broda, C. M. Campbell, M. P. Carpenter, P. Chowdhury, J. M. Cook, A. Deacon, B. Fornal, S. J. Freeman, T. Glasmacher, F. G. Kondev, J.-L. Lecouey, S. N. Liddick, P. F. Mantica, W. F. Mueller, H. Olliver, K. Starosta, J. R. Terry, B. A. Tomlin, and K. Yoneda
Conference on "Nuclei at the Limits", Argonne, IL, July 26-30, 2004, Book of Abstracts, p. 43 (2004)

Decay-Out of Superdeformed Bands by Coupling to Ordered or Chaotic Spectra

T. Døssing, T. L. Khoo, T. Lauritsen, A. P. Lopez-Martens, and S. Åberg
Conference on "Nuclei at the Limits", Argonne, IL, July 26-30, 2004, Book of Abstracts, p. 46 (2004)

Structure of Multi-Quasiparticle Isomers in the Region of ^{177}Lu

G. D. Dracoulis, F. G. Kondev, G. J. Lane, A. P. Byrne, T. Kibédi, I. Ahmad, M. P. Carpenter, S. J. Freeman, R. V. F. Janssens, N. J. Hammond, T. Lauritsen, C. J. Lister, G. Mukherjee, D. Seweryniak, P. Chowdhury, and S. K. Tandel

Conference on “Nuclei at the Limits”, Argonne, IL, July 26-30, 2004, Book of Abstracts, p. 47 (2004)

Level Structure of ^{56}Ti and the Possible Shell Gap at $N = 34$

B. Fornal, R. V. F. Janssens, R. Broda, S. Zhu, M. P. Carpenter, P. J. Daly, S. Freeman, Z. W. Grabowski, N. Hammond, F. G. Kondev, W. Krolas, T. Lauritsen, S. Liddick, C. J. Lister, P. Mantica, E. F. Moore, T. Pawlat, B. Tomlin, D. Seweryniak, and J. Wrzesinski

Conference on “Nuclei at the Limits”, Argonne, IL, July 26-30, 2004, Book of Abstracts, p. 53 (2004)

Structure of Neutron-Rich Cr Isotopes: Inadequacy of the fp Model Space and the Onset of Deformation

S. J. Freeman, R. V. F. Janssens, B. A. Brown, I. V. Calderin, M. P. Carpenter, P. Chowdhury, A. N. Deacon, S. M. Fischer, N. J. Hammond, M. Honma, T. Lauritsen, C. J. Lister, T. L. Khoo, G. Mukherjee, D. Seweryniak, J. F. Smith, S. L. Tabor, B. J. Varley, M. Whitehead, and S. Zhu

Conference on “Nuclei at the Limits”, Argonne, IL, July 26-30, 2004, Book of Abstracts, p. 54 (2004)

Heavy-Element Spectroscopy at JYFL

P. T. Greenlees, S. Eeckhaudt, T. Grahn, P. Jones, R. Julin, S. Juutinen, H. Kettunen, M. Leino, A.-P. Leppänen, P. Nieminen, M. Nyman, J. Pakarinen, P. Rahkila, C. Scholey, J. Uusitalo, P. A. Butler, J. E. Bastin, R.-D. Herzberg, R. D. Humphreys, P. J. C. Ikin, G. D. Jones, T. Page, A. Pritchard, A. Chatillon, A. Gørgen, W. Korten, Ch. Theisen, J. Gerl, F. P. Heßberger, P. Kuusiniemi, T. L. Khoo, P. Reiter, and K. Eskola

Conference on “Nuclei at the Limits”, Argonne, IL, July 26-30, 2004, Book of Abstracts, p. 59 (2004)

Linear Polarization Measurements of Gamma Rays Following Alpha Decay

N. J. Hammond, C. J. Lister, K. Teh, E. F. Moore, and G. D. Jones

Conference on “Nuclei at the Limits”, Argonne, IL, July 26-30, 2004, Book of Abstracts, p. 63 (2004)

Search for Hyperdeformation in Xe Nuclei

C. Rønn Hansen, C. B. Hagemann, B. Herskind, D. R. Jensen, G. Sletten, J. N. Wilson, S. W. Ødegård, P. Bringel, C. Engelhardt, H. Hübel, A. Neusser, A. K. Singh, G. Benzoni, A. Bracco, F. Camera, S. Leoni, A. Maj, P. Bednarczyk, T. Byrski, D. Curien, A. Korichi, J. Roccoz, J. Lisle, T. Steinhardt, O. Thelen, M. P. Carpenter, R. V. F. Janssens, T. L. Khoo, T. Lauritsen, R. M. Clark, and P. Fallon

Conference on “Nuclei at the Limits”, Argonne, IL, July 26-30, 2004, Book of Abstracts, p. 64 (2004)

Search for Wobbling Excitations in Hf Nuclei: Are the TSD Bands Triaxial?

D. J. Hartley, M. K. Djongolov, F. G. Kondev, M. P. Carpenter, G. Hagemann, R. V. F. Janssens, E. F. Moore, L. L. Riedinger, M. A. Riley, G. Sletten, A. Aguilar, C. R. Bingham, D. Campbell, P. Chowdhury, M. Cromaz, D. Cullen, M. Danchev, G. Dracoulis, P. Fallon, J. Goon, R. A. Kaye, R. W. Laird, T. Lauritsen, A. O. Macchiavelli, B. McClain, G. Mukherjee, E. Ngijoi-Yogo, S. K. Tandel, Jing-ye Zhang

Conference on “Nuclei at the Limits”, Argonne, IL, July 26-30, 2004, Book of Abstracts, p. 65 (2004)

Mapping the Limits of Chiral Structure in the Mass $A \sim 130$ Region

A. A. Hecht, C. W. Beausang, H. Amro, D. L. Balabanski, C. J. Barton, Z. Berant, M. A. Caprio, F. R. Casten, J. R. Cooper, F. Donau, D. J. Hartley, R. Krucken, D. A. Meyer, H. Newman, J. R. Novak, E. S. Paul, N. Pietralla, J. J. Ressler, A. Wolf, N. V. Zamfir, Jing-Ye Zhang, and K. E. Zyromski

Conference on “Nuclei at the Limits”, Argonne, IL, July 26-30, 2004, Book of Abstracts, p. 67 (2004)

Confirmation of a Doorway Mechanism as the Principal Decay Mode in the Heavy Ion Radiative Capture Reaction $^{12}\text{C}(^{12}\text{C},\gamma)^{24}\text{Mg}$

D. G. Jenkins, B. R. Fulton, R. Glover, J. Pearson, R. Wadsworth, D. Watson, C. J. Lister, M. P. Carpenter, P. Chowdhury, S. Freeman, R. V. F. Janssens, D. Seweryniak, The DRAGON E947 Collaboration, F. Haas, C. Beck, P. Papka, M. Rousseau, A. Sánchez i Zafra, C. Andreoiu, J. Dobon, P. Fallon, A. Gørgen, A. O. Macchiavelli, and M. McMahan

Conference on “Nuclei at the Limits”, Argonne, IL, July 26-30, 2004, Book of Abstracts, p. 73 (2004)

Influence of Nuclear Structure on Sub-Barrier Hindrance in Ni + Ni Fusion

C. L. Jiang, K. E. Rehm, R. V. F. Janssens, H. Esbensen, I. Ahmad, B. B. Back, P. Collon, C. N. Davids, J. P. Greene, D. J. Henderson, G. Mukherjee, R. C. Pardo, M. Paul, T. O. Pennington, D. Seweryniak, S. Sinha, and Z. Zhou

Conference on “Nuclei at the Limits”, Argonne, IL, July 26-30, 2004, Book of Abstracts, p. 74 (2004)

Rotational Damping, Ridges and the Quasicontinuum of γ Rays in ^{152}Dy

T. Lauritsen, I. Ahmad, M. P. Carpenter, A. M. Heinz, R. V. F. Janssens, D. G. Jenkins, T. L. Khoo, F. G. Kondev, A. J. Larabee, C. J. Lister, D. Seweryniak, P. Fallon, A. O. Macchiavelli, D. Ward, R. M. Clark, M. Cromaz, G. Lane, A. Lopez-Martens, A. Korichi, S. Siem, B. Herskind, and T. Dossing

Conference on “Nuclei at the Limits”, Argonne, IL, July 26-30, 2004, Book of Abstracts, p. 82 (2004)

Search for Triaxial Superdeformation and Wobbling Mode in $^{172,171}\text{Hf}$

W. C. Ma, M. P. Carpenter, P. Chowdhury, D. Cullen, M. K. Djongolov, N. Hammond, D. J. Hartley, R. V. F. Janssens, T. L. Khoo, F. G. Kondev, T. Lauritsen, C. J. Lister, E. F. Moore, S. Odegard, S. V. Rigby, D. G. Roux, D. T. Scholes, J. A. Winger, R. Yadav, J. Y. Zhang, Y. Zhang, and S. Zhu

Conference on “Nuclei at the Limits”, Argonne, IL, July 26-30, 2004, Book of Abstracts, p. 89 (2004)

Electrons from A 0.3s Isomer in ^{254}No

G. Mukherjee, T. L. Khoo, R. Blinstrup, D. Seweryniak, I. Ahmad, P. A. Butler, M. P. Carpenter, P. Chowdhury, J. A. Cizewski, C. N. Davids, S. Freeman, R. Gramer, J. Greene, N. Hammond, R. D. Herzberg, A. Heinz, P. Ikin, R. V. F. Janssens, M. Johnson, G. D. Jones, F. G. Kondev, T. Lauritsen, C. J. Lister, E. Ngijoi-Yogo, and P. Reiter

Conference on “Nuclei at the Limits”, Argonne, IL, July 26-30, 2004, Book of Abstracts, p. 103 (2004)

Triaxial Superdeformed Bands in ^{175}Hf

D. T. Scholes, D. M. Cullen, F. G. Kondev, R. V. F. Janssens, M. P. Carpenter, D. J. Hartley, M. K. Djongolov, G. Sletten, G. Hagemann, W. Sheldon, P. M. Walker, K. Abu Saleem, I. Ahmad, D. L. Balabanski, P. Chowdhury, M. Danchev, G. D. Dracoulis, H. M. El-Masri, J. Goon, A. Heinz, R. A. Kaye, T. L. Khoo, T. Lauritsen, C. J. Lister, E. F. Moore, L. L. Riedinger, M. A. Riley, D. Seweryniak, I. Shestakova, I. Wiedenhöver, O. Zeidan, and Jing-ye Zhang

Conference on “Nuclei at the Limits”, Argonne, IL, July 26-30, 2004, Book of Abstracts, p. 132 (2004)

Ground-State Bands in the Transitional Proton Emitters $^{145,147}\text{Tm}$

D. Seweryniak, C. N. Davids, A. Robinson, P. J. Woods, B. Blank, M. P. Carpenter, T. Davinson, S. J. Freeman, N. Hammond, N. Hoteling, R. V. F. Janssens, Z. Liu, G. Mukherjee, J. Shergur, S. Sinha, A. A. Sonzogni, W. B. Walters, and A. Woehr

Conference on “Nuclei at the Limits”, Argonne, IL, July 26-30, 2004, Book of Abstracts, p. 134 (2004)

In-Beam Studies of the Astrophysically Important $T_z = -1$ Nuclei

D. Seweryniak, P. J. Woods, B. Blank, M. P. Carpenter, T. Davinson, S. J. Freeman, J. Goerres, N. Hammond, A. Heinz, N. Hoteling, R. V. F. Janssens, D. G. Jenkins, H. Mahmud, T. L. Khoo, C. J. Lister, Z. Liu, G. Mukherjee, E. Rehm, F. Sarazin, J. Shergur, M. Shawcross, S. Sinha, and A. Woehr

Conference on “Nuclei at the Limits”, Argonne, IL, July 26-30, 2004, Book of Abstracts, p. 135 (2004)

Low. Energy Levels in $^{111,113}\text{Sb}$ Populated Via β -Decay of $^{111,113}\text{Te}$

J. Shergur, D. Seweryniak, W. B. Walters, A. Woehr, P. Boutachkov, C. N. Davids, I. Dillmann, G. Mukherjee, S. Sinha, A. Teymurazyan, and I. Zartova

Conference on "Nuclei at the Limits", Argonne, IL, July 26-30, 2004, Book of Abstracts, p. 138 (2004)

High-K Isomers and Rotational Structures in ^{174}W

S. K. Tandel, P. Chowdhury, E. H. Seabury, I. Ahmad, M. P. Carpenter, S. Fischer, R. V. F. Janssens, T. L. Khoo, T. Lauritsen, C. J. Lister, and D. Seweryniak

Conference on "Nuclei at the Limits", Argonne, IL, July 26-30, 2004, Book of Abstracts, p. 147 (2004)

Determination of the Direct Capture Contribution for $^{13}\text{N}(p,\gamma)^{14}\text{O}$ from the $^{14}\text{O} \rightarrow ^{13}\text{N} + p$ Asymptotic Normalization Coefficient

Xiaodong Tang, A. Azhari, Changbo Fu, C. A. Gagliardi, A. M. Mukhamedzhanov, F. Pirlpesov, L. Trache, R. E. Tribble, V. Burjan, V. Kroha, and B. F. Irgaziev

Conference on "Nuclei at the Limits", Argonne, IL, July 26-30, 2004, Book of Abstracts, p. 148 (2004)

Isomeric Transitions in Neutron-Rich Nuclides Observed Following Projectile Fragmentation of a ^{136}Xe Beam at 120 MeV/A

B. E. Tomlin, W. B. Walters, P. F. Mantica, B. A. Brown, A. D. Davies, A. Estrade, P. Hosmer, N. Hoteling, S. N. Liddick, T. J. Mertzimekis, F. Montes, A. C. Morton, W. F. Mueller, M. S. Ouellette, E. Pellegrini, J. Rikovska Stone, P. Santi, D. Seweryniak, H. Schatz, and J. Shergur

Conference on "Nuclei at the Limits", Argonne, IL, July 26-30, 2004, Book of Abstracts, p. 151 (2004)

Triaxial Superdeformed Bands and Wobbling in $^{163}_{69}\text{Tm}$

X. Wang, N. S. Pattabiraman, U. Garg, A. A. Afanasjev, M. P. Carpenter, R. S. Chakrawarthy, S. S. Ghugre, N. J. Hammond, R. V. F. Janssens, T. Li, A. O. Macchiavelli, E. F. Moore, G. Mukherjee, B. K. Nayak, D. Seweryniak, M. Whitehead, and S. Zhu

Conference on "Nuclei at the Limits", Argonne, IL, July 26-30, 2004, Book of Abstracts, p. 159 (2004)

Study of ^7He Using the $d(^6\text{He},p)^7\text{He}$ Reaction

A. H. Wuosmaa, K. E. Rehm, J. P. Greene, D. J. Henderson, R. V. F. Janssens, C. L. Jiang, L. Jisonna, E. F. Moore, R. C. Pardo, M. Paul, D. Peterson, S. C. Pieper, G. Savard, J. P. Schiffer, R. E. Segel, S. Sinha, X. Tang, and R. B. Wiringa

Conference on "Nuclei at the Limits", Argonne, IL, July 26-30, 2004, Book of Abstracts, p. 165 (2004)

Investigation of Anti-Magnetic Rotation in ^{101}Pd

S. Zhu, U. Garg, A. V. Afanasjev, S. Frauendorf, B. Kharraja, S. S. Ghugre, S. N. Chintalapudi, N. S. Pattabiraman, R. V. F. Janssens, M. P. Carpenter, F. G. Kondev, and T. Lauritsen

Conference on "Nuclei at the Limits", Argonne, IL, July 26-30, 2004, Book of Abstracts, p. 171 (2004)

Level Structure of ^{104}Ag

S. Zhu, U. Garg, A. V. Afanasjev, S. Frauendorf, B. Kharraja, S. S. Ghugre, S. N. Chintalapudi, N. S. Pattabiraman, R. V. F. Janssens, M. P. Carpenter, F. G. Kondev, and T. Lauritsen

Conference on "Nuclei at the Limits", Argonne, IL, July 26-30, 2004, Book of Abstracts, p. 172 (2004)

Nuclear Pairing and Coriolis Effects in Proton Emitters

A. S. Volya and C. N. Davids

4th International Conference on Exotic Nuclei and Atomic Masses (ENAM'04), Pine Mountain, GA, September 12-16, 2004, Book of Abstracts, p. 24 (2004)

Understanding the rp-Processes with the Canadian Penning Trap Mass Spectrometer

J. A. Clark, R. C. Barber, B. Blank, C. Boudreau, F. Buchinger, J. E. Crawford, J. P. Greene, S. Gulick, J. C. Hardy, A. A. Hecht, A. Heinz, J. K. P. Lee, A. F. Levand, B. F. Lundgren, R. B. Moore, G. Savard, N. D. Scielzo, D. Seweryniak, K. S. Sharma, G. D. Sprouse, W. Trimble, J. Vaz, J. C. Wang, Y. Wang, B. J. Zabransky, and Z. Zhou

4th International Conference on Exotic Nuclei and Atomic Masses (ENAM'04), Pine Mountain, GA, September 12-16, 2004, Book of Abstracts, p. 59 (2004)

Filling in the Gaps for Odd-A Sb Isotopes from Shell to Shell: A Systematic Perspective of Low-Energy Excitations
Nathan Hotelling, Jason Shergur, and William Walters

4th International Conference on Exotic Nuclei and Atomic Masses (ENAM'04), Pine Mountain, GA, September 12-16, 2004, Book of Abstracts, p. 66 (2004)

In-Beam and Decay Spectroscopy of Transfermium Elements

P. T. Greenlees, D. Ackermann, J. E. Bastin, P. A. Butler, A. Chatillon, S. Eeckhaudt, K. Eskola, J. Gerl, T. Grahn, A. Gorgen, R.-D. Herzberg, F. P. Heßberger, R. D. Humphreys, P. J. C. Ikin, G. D. Jones, P. Jones, R. Julin, S. Juutinen, H. Kettunen, T. L. Khoo, W. Korten, P. Kuusiniemi, M. Leino, A.-P. Leppanen, P. Nieminen, M. Nyman, T. Page, J. Pakarinen, A. Pritchard, P. Rahkila, P. Reiter, C. Scholey, Ch. Theisen, and J. Uusitalo

4th International Conference on Exotic Nuclei and Atomic Masses (ENAM'04), Pine Mountain, GA, September 12-16, 2004, Book of Abstracts, p. 72 (2004)

In-Beam Gamma-Ray Spectroscopy of ²⁵⁴No

S. Eeckhaudt, N. Amzal, J. E. Bastin, E. Bouchez, P. A. Butler, A. Chatillon, K. Eskola, J. Gerl, T. Grahn, A. Gorgen, P. T. Greenlees, R.-D. Herzberg, F. P. Hessberger, A. Hurstel, P. J. C. Ikin, G. D. Jones, P. Jones, R. Julin, S. Juutinen, H. Kettunen, T. L. Khoo, W. Korten, P. Kuusiniemi, Y. Le Coz, M. Leino, A.-P. Leppannen, P. Nieminen, J. Pakarinen, J. Perkowski, A. Pritchard, P. Reiter, P. Rahkila, C. Scholey, Ch. Theisen, J. Uusitalo, K. Van de Vel, J. Wilson, and H. J. Wollersheim

4th International Conference on Exotic Nuclei and Atomic Masses (ENAM'04), Pine Mountain, GA, September 12-16, 2004, Book of Abstracts, p. 75 (2004)

Ion Manipulation with Cooled and Bunched Beams

G. Savard

4th International Conference on Exotic Nuclei and Atomic Masses (ENAM'04), Pine Mountain, GA, September 12-16, 2004, Book of Abstracts, p. 128 (2004)

Recoil-Decay Tagging Study of ¹⁴⁶Tm

A. P. Robinson, C. N. Davids, D. Seweryniak, P. J. Woods, B. Blank, M. P. Carpenter, T. Davinson, S. J. Freeman, N. Hammond, N. Hotelling, R. V. F. Janssens, Z. Liu, G. Mukherjee, J. Shergur, S. Sinha, A. A. Sonzogni, W. B. Walters, and A. Woehr

4th International Conference on Exotic Nuclei and Atomic Masses (ENAM'04), Pine Mountain, GA, September 12-16, 2004, Book of Abstracts, p. 164 (2004)

Atomic Mass Ratios for Some Stable Isotopes of Platinum Relative to ¹⁹⁷Au

K. S. Sharma, J. Vaz, R. C. Barber, F. Buchinger, J. A. Clark, J. E. Crawford, H. Fukutani, J. P. Greene, S. Gulick, A. Heinz, J. K. P. Lee, G. Savard, Z. Zhou, and J. C. Wang

4th International Conference on Exotic Nuclei and Atomic Masses (ENAM'04), Pine Mountain, GA, September 12-16, 2004, Book of Abstracts, p. 199 (2004)

Precise Mass Measurements of ^{252}Cf Fission Fragments with The Canadian Penning Trap Mass Spectrometer

Y. Wang, C. Boudreau, F. Buchinger, J. A. Clark, J. E. Crawford, J. P. Greene, S. Gulick, J. C. Hardy, A. A. Hecht, A. Heinz, J. K. P. Lee, A. F. Levand, B. F. Lundgren, G. Savard, N. Scielzo, K. S. Sharma, G. D. Sprouse, W. Trimble, J. Vaz, J. C. Wang, B. J. Zabransky, and Z. Zhou
4th International Conference on Exotic Nuclei and Atomic Masses (ENAM'04), Pine Mountain, GA, September 12-16, 2004, Book of Abstracts, p. 201 (2004)

The $N = Z$ rp-Process Waiting-Point Nucleus ^{68}Se and its Astrophysical Implication

A. Wöhr, A. Aprahamian, P. Boutachkov, J. L. Galache, J. Görres, M. Shawcross, A. Teymurazyan, M. C. Wiescher, D. S. Brenner, C. N. Davids, S. M. Fischer, A. M. Heinz, R. V. F. Janssens, and D. Seweryniak
4th International Conference on Exotic Nuclei and Atomic Masses (ENAM'04), Pine Mountain, GA, September 12-16, 2004, Book of Abstracts, p. 203 (2004)

EMMA: A Recoil Mass Spectrometer for ISAC II at TRIUMF

B. Davids and C. N. Davids
4th International Conference on Exotic Nuclei and Atomic Masses (ENAM'04), Pine Mountain, GA, September 12-16, 2004, Book of Abstracts, p. 212 (2004)

Decay Rate of Triaxially Deformed Proton Emitters

Cary N. Davids and Henning Esbensen
4th International Conference on Exotic Nuclei and Atomic Masses (ENAM'04), Pine Mountain, GA, September 12-16, 2004, Book of Abstracts, p. 245 (2004)

Study of Multi-Quasiparticle Isomers in Deformed $A \sim 180$ Nuclei Near and Beyond the Valley of Stability

F. G. Kondev, G. D. Dracoulis, G. J. Lane, I. Ahmd, A. P. Byrne, M. P. Carpenter, S. J. Freeman, N. J. Hammond, R. V. F. Janssens, T. Kibedi, T. Lauritsen, C. J. Lister, G. Mukherjee, D. Seweryniak, P. Chowdhury, and S. K. Tandel
4th International Conference on Exotic Nuclei and Atomic Masses (ENAM'04), Pine Mountain, GA, September 12-16, 2004, Book of Abstracts, p. 292 (2004)

Particle-Core Coupling in the Transitional Proton Emitters $^{145,146,147}\text{Tm}$

D. Seweryniak, C. N. Davids, A. Robinson, P. J. Woods, B. Blank, M. P. Carpenter, T. Davinson, S. J. Freeman, N. Hammond, N. Hoteling, R. V. F. Janssens, Z. Liu, G. Mukherjee, J. Shergur, S. Sinha, A. A. Sonzogni, W. B. Walters, and A. Woehr
4th International Conference on Exotic Nuclei and Atomic Masses (ENAM'04), Pine Mountain, GA, September 12-16, 2004, Book of Abstracts, p. 312 (2004)

Neutron-Proton Correlations in $N = Z$ Nuclei Above ^{56}Ni

C. J. (Kim) Lister
2004 Annual April Meeting of the American Physical Society, Denver, CO, May 1-4, 2004; Bull. Am. Phys. Soc. **49**, 45 (2004)

Determination of Low-Spin Levels in $^{134,135}\text{Sb}$ via Decay of ^{135}Sn

Jason Shergur, Andreas Woehr, William B. Walters, Karl-Ludwig Kratz, Oliver Arndt, Iris Dillmann, Per Hoff, Ulli Koster, and Bernd Pfeiffer
2004 Annual April Meeting of the American Physical Society, Denver, CO, May 1-4, 2004; Bull. Am. Phys. Soc. **49**, 106 (2004)

Loading ^{225}Ra Atoms in a Magneto-Optical Trap as the First Step to an Electric Dipole Moment Measurement

N. D. Scielzo, I. Ahmad, K. Bailey, R. J. Holt, Z.-T. Lu, T. O'Conner, D. H. Potterveld, and E. C. Schulte
2004 Annual April Meeting of the American Physical Society, Denver, CO, May 1-4, 2004; Bull. Am. Phys. Soc. **49**, 113 (2004)

Hadron Spectra from PHOBOS in d + Au Collisions

Gabor Veres (PHOBOS Collaboration)

2004 Annual April Meeting of the American Physical Society, Denver, CO, May 1-4, 2004; Bull. Am. Phys. Soc. **49**, 167 (2004)

Multiplicity Fluctuations in 200 GeV Au - Au Collisions

Zhengwei Chai (PHOBOS Collaboration)

2004 Annual April Meeting of the American Physical Society, Denver, CO, May 1-4, 2004; Bull. Am. Phys. Soc. **49**, 168 (2004)

Early Days and the Beginnings of the Iron Age

John P. Schiffer

2004 Annual April Meeting of the American Physical Society, Denver, CO, May 1-4, 2004; Bull. Am. Phys. Soc. **49**, 173 (2004)

Alpha-Gamma Angular Correlations Using Position-Sensitive Detectors

P. Chowdhury, C. M. Wilson, R. Gramer, S. K. Tandel, N. J. Hammond, C. J. Lister, S. M. Fischer, E. F. Moore, K. M. Teh, M. McClish, K. S. Shah, and R. Farrell

2004 Annual April Meeting of the American Physical Society, Denver, CO, May 1-4, 2004; Bull. Am. Phys. Soc. **49**, 181 (2004)

Linear Polarization Measurements of Gamma Rays Following Alpha Decay

N. J. Hammond, C. J. Lister, K. Teh, E. F. Moore, and G. D. Jones

2004 Annual April Meeting of the American Physical Society, Denver, CO, May 1-4, 2004; Bull. Am. Phys. Soc. **49**, 183 (2004)

Germanium Double Sided Strip Detectors

C. J. (Kim) Lister

2004 Fall Meeting of the Division of Nuclear Physics of the American Physical Society, Chicago, IL, October 27-30, 2004; Bull. Am. Phys. Soc. **49**, 9 (2004)

Experiments in Nuclear Astrophysics

K. Ernst Rehm

2004 Fall Meeting of the Division of Nuclear Physics of the American Physical Society, Chicago, IL, October 27-30, 2004; Bull. Am. Phys. Soc. **49**, 11 (2004)

A Linear Polarimeter with Exceptional "Figure of Merit"

C. J. (Kim) Lister, N. J. Hammond, K. Teh, E. F. Moore, S. J. Freeman, and G. D. Jones

2004 Fall Meeting of the Division of Nuclear Physics of the American Physical Society, Chicago, IL, October 27-30, 2004; Bull. Am. Phys. Soc. **49**, 19 (2004)Study of the $d(^6\text{He},p)^7\text{He}$ Reaction

A. H. Wuosmaa, K. E. Rehm, J. P. Greene, R. V. F. Janssens, C. L. Jiang, E. F. Moore, R. C. Pardo, D. Peterson, S. C. Pieper, G. Savard, J. P. Schiffer, S. Sinha, X. Tang, R. B. Wiringa, L. Jisonna, R. E. Segel, and M. Paul

2004 Fall Meeting of the Division of Nuclear Physics of the American Physical Society, Chicago, IL, October 27-30, 2004; Bull. Am. Phys. Soc. **49**, 21 (2004)The ^{16}N Experiment at ATLAS - A Target Preparation *Tour de Force*

John Greene, Janelle Neubauer, Dale Henderson, Bruce Zabransky, Bruce Nardi, Xiaodong Tang, Richard Pardo, and Ernst Rehm

2004 Fall Meeting of the Division of Nuclear Physics of the American Physical Society, Chicago, IL, October 27-30, 2004; Bull. Am. Phys. Soc. **49**, 21 (2004)

Excited States in ${}^9\text{Li}$ from $d({}^8\text{Li},p){}^9\text{Li}$

K. E. Rehm, J. P. Greene, D. J. Henderson, R. V. F. Janssens, C. L. Jiang, E. F. Moore, R. C. Pardo, D. Peterson, S. C. Pieper, G. Savard, J. P. Schiffer, S. Sinha, X. Tang, R. B. Wiringa, A. H. Wuosmaa, L. Jisonna, R. E. Segel, and M. Paul

2004 Fall Meeting of the Division of Nuclear Physics of the American Physical Society, Chicago, IL, October 27-30, 2004; Bull. Am. Phys. Soc. **49**, 22 (2004)

Sub-Barrier Fusion Hindrance in ${}^{64}\text{Ni} + {}^{100}\text{Mo}$

C. L. Jiang, B. B. Back, C. N. Davids, H. Esbensen, R. V. F. Janssens, J. P. Greene, D. J. Henderson, C. J. Lister, R. Pardo, D. Peterson, K. B. Rehm, D. Seweryniak, B. Shumard, S. Sinha, X. D. Tang, I. Tanihata, S. Zhu, P. Collon, and S. Kurtz

2004 Fall Meeting of the Division of Nuclear Physics of the American Physical Society, Chicago, IL, October 27-30, 2004; Bull. Am. Phys. Soc. **49**, 23 (2004)

Characterization of States in the $N = Z + 1$ Nucleus ${}^{71}\text{Br}$

S. M. Fischer, C. J. Lister, T. Anderson, P. Kerns, G. Mesoloras, D. Svelnys, D. P. Balamuth, P. A. Hausladen, and D. G. Sarantites

2004 Fall Meeting of the Division of Nuclear Physics of the American Physical Society, Chicago, IL, October 27-30, 2004; Bull. Am. Phys. Soc. **49**, 25 (2004)

Probing Explosive Stellar Environments with Gammasphere

Dariusz Seweryniak

2004 Fall Meeting of the Division of Nuclear Physics of the American Physical Society, Chicago, IL, October 27-30, 2004; Bull. Am. Phys. Soc. **49**, 25 (2004)

 $T = 0$ Pairing in the Even-Even $N = Z$ Nucleus ${}^{92}\text{Pd}$

O. L. Pechenaya, C. J. Chiara, D. G. Sarantites, W. Reviol, L.-L. Andersson, E. K. Johansson, D. Rudolph, M. P. Carpenter, R. V. F. Janssens, D. Seweryniak, and S. Zhu

2004 Fall Meeting of the Division of Nuclear Physics of the American Physical Society, Chicago, IL, October 27-30, 2004; Bull. Am. Phys. Soc. **49**, 25 (2004)

Evidence for Anti-Magnetic Rotation in ${}^{101}\text{Pd}$

S. Zhu, U. Garg, A. V. Afanasjev, S. Frauendorf, B. Kharraja, S. S. Ghugre, S. N. Chintalapudi, R. V. F. Janssens, M. P. Carpenter, F. G. Kondev, and T. Lauritsen

2004 Fall Meeting of the Division of Nuclear Physics of the American Physical Society, Chicago, IL, October 27-30, 2004; Bull. Am. Phys. Soc. **49**, 26 (2004)

Quadrupole Moments of Wobbling Bands in ${}^{167}\text{Lu}$

H. Amro, G. B. Hagemann, G. B. Beausang, D. A. Meyer, R. F. Casten, H. Herskind, G. Sletten, W. C. Ma, D. G. Roux, M. P. Carpenter, D. J. Hartley, E. F. Moore, P. Pringle, and A. Neusser

2004 Fall Meeting of the Division of Nuclear Physics of the American Physical Society, Chicago, IL, October 27-30, 2004; Bull. Am. Phys. Soc. **49**, 26 (2004)

Search for Triaxial Superdeformation and Wobbling Mode in ${}^{172,171}\text{Hf}$

Y. Zhang, W. C. Ma, D. G. Roux, J. A. Winger, R. B. Yadav, M. P. Carpenter, N. Hammond, R. V. F. Janssens, T. L. Khoo, F. G. Kondev, T. Lauritsen, C. J. Lister, E. F. Moore, S. Zhu, D. J. Hartley, D. Cullen, S. V. Rigby, D. T. Scholes, P. Chowdhury, S. Odegard, M. K. Djongolov, and J. Y. Zhang

2004 Fall Meeting of the Division of Nuclear Physics of the American Physical Society, Chicago, IL, October 27-30, 2004; Bull. Am. Phys. Soc. **49**, 26 (2004)

Multiple Band Structures in $^{237,239}\text{U}$ from “Unsafe” Coulomb Excitation

S. Zhu, R. V. F. Janssens, M. P. Carpenter, N. Hammond, S. J. Freeman, T. L. Khoo, F. G. Kondev, C. J. Lister, E. F. Moore, T. Lauritsen, D. Seweryniak, P. Chowdhury, A. Deacon, J. F. Smith, and G. D. Jones
2004 Fall Meeting of the Division of Nuclear Physics of the American Physical Society, Chicago, IL, October 27-30, 2004; Bull. Am. Phys. Soc. **49**, 27 (2004)

Search for Wobbling Excitations in Superdeformed Hf Nuclei

D. J. Hartley, M. K. Djongolov, L. L. Riedinger, C. R. Bingham, M. Danchev, J. Goon, J. Y. Zhang, M. P. Carpenter, R. V. F. Janssens, T. L. Khoo, F. G. Kondev, T. Lauritsen, E. F. Moore, G. Hagemann, G. Sletten, A. Aguilar, D. B. Campbell, M. A. Riley, P. Chowdhury, C. Mukherjee, E. Ngijoi-Yogo, S. K. Tandel, D. M. Cullen, C. D. Dracoulis, R. A. Kaye, and R. W. Laird
2004 Fall Meeting of the Division of Nuclear Physics of the American Physical Society, Chicago, IL, October 27-30, 2004; Bull. Am. Phys. Soc. **49**, 27 (2004)

Sub-Microsecond Isomers in Neutron-Rich Hf Isotopes

S. K. Tandel, U. S. Tandel, C. Parnell-Lampen, P. Chowdhury, M. P. Carpenter, N. J. Hammond, R. V. F. Janssens, T. L. Khoo, F. G. Kondev, T. Lauritsen, C. J. Lister, E. F. Moore, D. Seweryniak, S. Zhu, G. D. Jones, A. Deacon, S. J. Freeman, and J. F. Smith
2004 Fall Meeting of the Division of Nuclear Physics of the American Physical Society, Chicago, IL, October 27-30, 2004; Bull. Am. Phys. Soc. **49**, 27 (2004)

Asymptotic Normalization Coefficient and Interference of the Resonance and Direct Capture Terms in the Astrophysical Factor for the Hot CNO Process $^{13}\text{N}(p,\gamma)^{14}\text{O}$

A. M. Mukhamedzhanov, A. Azhari, C. Fu, C. A. Gagliardi, F. Pirlepesov, X. D. Tang, L. Trache, R. E. Tribble, V. Burjan., V. Kroha, F. Carstoiu, and B. F. Irgaziev
2004 Fall Meeting of the Division of Nuclear Physics of the American Physical Society, Chicago, IL, October 27-30, 2004; Bull. Am. Phys. Soc. **49**, 38 (2004)

Collision Geometry Scaling of Midrapidity Charged Particle Multiplicity at RHIC from $\sqrt{s_{NN}} = 19.6$ to 200 GeV
Aneta Iordanova and the PHOBOS Collaboration

2004 Fall Meeting of the Division of Nuclear Physics of the American Physical Society, Chicago, IL, October 27-30, 2004; Bull. Am. Phys. Soc. **49**, 38 (2004)

Pseudorapidity Dependence of Anisotropic Flow in Au + Au Collisions at 62.4 GeV Using the PHOBOS Experiment at RHIC

Joshua Hamblen and the PHOBOS Collaboration

2004 Fall Meeting of the Division of Nuclear Physics of the American Physical Society, Chicago, IL, October 27-30, 2004; Bull. Am. Phys. Soc. **49**, 38 (2004)

Measurement of the β -Delayed α Spectrum of ^{16}N with a New Technique

X. Tang, K. E. Rehm, I. Ahmad, J. Greene, A. A. Hecht, D. Henderson, C. L. Jiang, E. F. Moore, R. C. Pardo, R. V. F. Janssens, G. Savard, J. P. Schiffer, B. Shumard, S. Sinha, A. Wuosmaa, L. J. Jisonna, R. E. Segel, M. Paul, and C. Brune
2004 Fall Meeting of the Division of Nuclear Physics of the American Physical Society, Chicago, IL, October 27-30, 2004; Bull. Am. Phys. Soc. **49**, 40 (2004)

Remeasurement of $^{14}\text{N} + ^7\text{Be}$ for Astrophysical S_{17} Factor

G. Tabacaru., A. Azhari, C. Fu, C. A. Gagliardi, X. Tang, L. Trache, R. E. Tribble, and V. Burjan
2004 Fall Meeting of the Division of Nuclear Physics of the American Physical Society, Chicago, IL, October 27-30, 2004; Bull. Am. Phys. Soc. **49**, 40 (2004)

Measurement of the Excitation Function for the $^{21}\text{Na}(p,\alpha)^{18}\text{Ne}$ Reaction

S. Sinha, J. Greene, D. Henderson, R. V. F. Janssens, C. L. Jiang, E. F. Moore, R. C. Pardo, D. Peterson, K. E. Rehm, J. P. Schiffer, X. Tang, A. Chen, L. Jisonna, R. Segel, and A. H. Wuosmaa
2004 Fall Meeting of the Division of Nuclear Physics of the American Physical Society, Chicago, IL, October 27-30, 2004; Bull. Am. Phys. Soc. **49**, 41(2004)

Single-Particle States in the Heaviest Actinide Nuclei

I. Ahmad, F. G. Kondev, E. F. Moore, M. P. Carpenter, R. R. Chasman, J. P. Greene, R. V. F. Janssens, T. Lauritsen, C. J. Lister, and D. Seweryniak
2004 Fall Meeting of the Division of Nuclear Physics of the American Physical Society, Chicago, IL, October 27-30, 2004; Bull. Am. Phys. Soc. **49**, 43 (2004)

Measurement of Neutron Reflectivity in Bragg Reflection from a Perfect Silicon Crystal

Helmut Kaiser, Thomas Dombek, Donald Koetke, Robert Smither, Roy Ringo, Kerry Schoen, Samuel Werner, and Daniel Dombek
2004 Fall Meeting of the Division of Nuclear Physics of the American Physical Society, Chicago, IL, October 27-30, 2004; Bull. Am. Phys. Soc. **49**, 46 (2004)

The ^8B Neutrino Spectrum

W. T. Winter, S. J. Freedman, J. P. Schiffer, and K. E. Rehm
2004 Fall Meeting of the Division of Nuclear Physics of the American Physical Society, Chicago, IL, October 27-30, 2004; Bull. Am. Phys. Soc. **49**, 47 (2004)

Gamma-Ray Spectroscopy of ^{83}Nb

J. Carney, S. M. Fischer, C. J. Lister, M. P. Carpenter, N. J. Hammond, R. V. F. Janssens, E. F. Moore, D. Seweryniak, S. Sinha, and D. P. Balamuth
2004 Fall Meeting of the Division of Nuclear Physics of the American Physical Society, Chicago, IL, October 27-30, 2004; Bull. Am. Phys. Soc. **49**, 53 (2004)

Centrality Dependence and Species Composition of Charged Hadron p_T Spectra in Au + Au Collisions at 62.4 and 200 GeV

Conor Henderson and the PHOBOS Collaboration
2004 Fall Meeting of the Division of Nuclear Physics of the American Physical Society, Chicago, IL, October 27-30, 2004; Bull. Am. Phys. Soc. **49**, 71 (2004)

Charged Particle Multiplicity Distributions for Au + Au and d + Au Collisions at RHIC

Richard Hollis and the PHOBOS Collaboration
2004 Fall Meeting of the Division of Nuclear Physics of the American Physical Society, Chicago, IL, October 27-30, 2004; Bull. Am. Phys. Soc. **49**, 71 (2004)

Half-Life of ^{44}Ti from a 12-Year Decay Measurement

I. Ahmad, F. F. Moore, J. P. Greene, W. Kutschera, and M. Paul
2004 Fall Meeting of the Division of Nuclear Physics of the American Physical Society, Chicago, IL, October 27-30, 2004; Bull. Am. Phys. Soc. **49**, 72 (2004)

Measurement of Charged Particle Distributions in 200 GeV p + p Interactions Using the PHOBOS Detector

Joseph Sagerer and the PHOBOS Collaboration
2004 Fall Meeting of the Division of Nuclear Physics of the American Physical Society, Chicago, IL, October 27-30, 2004; Bull. Am. Phys. Soc. **49**, 82 (2004)

Precise Mass Measurements Along the rp-Process Path

Jason Clark
2004 Fall Meeting of the Division of Nuclear Physics of the American Physical Society, Chicago, IL, October 27-30, 2004; Bull. Am. Phys. Soc. **49**, 85 (2004)

N_{coll} Scaling and High p_T

Birger Back

2004 Fall Meeting of the Division of Nuclear Physics of the American Physical Society, Chicago, IL, October 27-30, 2004; Bull. Am. Phys. Soc. **49**, 87 (2004)

Level Structure of ^{56}Ti and the Possible Shell Gap at $N = 34$

B. Fornal, S. Zhu, R. V. F. Janssens, R. Broda, M. P. Carpenter, P. J. Daly, S. Freeman, Z. W. Grabowski, N. Hammond, F. G. Kondev, W. Krolas, T. Lauritsen, S. Liddick, C. J. Lister, P. Mantica, F. F. Moore, T. Pawlat, B. Tomlin, D. Seweryniak, and J. Wrzesinski

2004 Fall Meeting of the Division of Nuclear Physics of the American Physical Society, Chicago, IL, October 27-30, 2004; Bull. Am. Phys. Soc. **49**, 93 (2004)

Nuclear Structure of Neutron-Rich Nuclides Following Projectile Fragmentation of a Xe-136 Beam at 120 MeV/A

B. E. Tomlin, W. B. Walters, P. F. Mantica, B. A. Brown, A. D. Davies, A. Estrade, P. Hosmer, S. N. Liddick, T. J. Mertzimekis, F. Montes, A. C. Morton, W. F. Mueller, M. S. Ouellette, E. Pellegrini, P. Santi, H. Schatz, N. Hoteling, J. Shergur, D. Seweryniak, and J. Rikowska

2004 Fall Meeting of the Division of Nuclear Physics of the American Physical Society, Chicago, IL, October 27-30, 2004; Bull. Am. Phys. Soc. **49**, 93 (2004)

Ion Trap for Precision β -Decay Studies

N. D. Scielzo, A. Levand, B. F. Lundgren, C. Savard, B. J. Zabransky, Z. Zhou, J. Clark, K. S. Sharma, J. Wang, and Y. Wang

2004 Fall Meeting of the Division of Nuclear Physics of the American Physical Society, Chicago, IL, October 27-30, 2004; Bull. Am. Phys. Soc. **49**, 111 (2004)

**OPERATION AND DEVELOPMENT OF ATLAS
and
R & D RELATED TO A FUTURE RARE ISOTOPE ACCELERATOR
FACILITY**

Beam Loss Studies in High-Intensity Heavy-Ion Linacs

P. N. Ostroumov, V. N. Aseev, and B. Mustapha
Phys. Rev. ST Accel. Beams **7**, 090101/1-18 (2004)

A Detector of Bunch Time Structure for CW Heavy-Ion Beams

N. E. Vinogradov, P. N. Ostroumov, R. C. Pardo, S. I. Sharamentov, and G. P. Zinkann
Nucl. Instrum. Methods **A526**, 206-214 (2004)

Overview of the U.S. Rare Isotope Accelerator Proposal

J. A. Nolen
Proceedings of the 8th International Conference on Nucleus-Nucleus Collisions (NN2003), Moscow, Russia, June 17-21, 2003; Nucl. Phys. **A734**, 661-668 (2004)

Radioactive Beam Facilities of North America

J. A. Nolen
Proceedings of the 6th International Conference on Radioactive Nuclear Beams (RNB6), Argonne, IL, September 22-26, 2003; Nucl. Phys. **A746**, 9c-16c (2004)

A 20 kw Beam-on-Target Test of a High-Power Liquid Lithium Target for RIA

Claude B. Reed, Jerry A. Nolen, James R. Specht, Vincent J. Novick, and Perry Plotkin
Proceedings of the 6th International Conference on Radioactive Nuclear Beams (RNB6), Argonne, IL, September 22-26, 2003; Nucl. Phys. **A746**, 161c-165c (2004)

The Influence of Secondary Reactions in the Wedge of a Magnetic Separator at RIA

C. L. Jiang, B. B. Back, J. Nolen, K. E. Rehm, and G. Savard
Proceedings of the 6th International Conference on Radioactive Nuclear Beams (RNB6), Argonne, IL, September 22-26, 2003; Nucl. Phys. **A746**, 403c-406c (2004)

Development and First On-Line Tests of the RIA Gas Catcher Prototype

W. Trimble, G. Savard, B. Blank, J. A. Clark, F. Buchinger, T. Cocolios, J. E. Crawford, A. Frankel
J. P. Greene, S. Gulick, J. K. P. Lee, A. Levand, M. Portillo, K. S. Sharma, J. C. Wang, B. J. Zabransky,
Z. Zhou and the S258 Collaboration
Proceedings of the 6th International Conference on Radioactive Nuclear Beams (RNB6), Argonne, IL, September 22-26, 2003; Nucl. Phys. **A746**, 415c-418c (2004)

Uranium Carbide Fission Target R&D for RIA - An Update

J. P. Greene, A. Levand, J. Nolen, and T. Burtseva
Proceedings of the 6th International Conference on Radioactive Nuclear Beams (RNB6), Argonne, IL, September 22-26, 2003; Nucl. Phys. **A746**, 425c-428c (2004)

Simulation of Effusion from Targets of Tilted Foils

B. Mustapha, J. A. Nolen, and I. C. Gomes
Proceedings of the 6th International Conference on Radioactive Nuclear Beams (RNB6), Argonne, IL, September 22-26, 2003; Nucl. Phys. **A746**, 437c-440c (2004)

Development of a Low Charge-to-Mass Ratio Injector for a RIB Linac

N. Y. Vinogradov, J. A. Nolen, P. N. Ostroumov, and K. W. Shepard

Proceedings of the 6th International Conference on Radioactive Nuclear Beams (RNB6), Argonne, IL, September 22-26, 2003; Nucl. Phys. **A746**, 445c-448c (2004)

The Use of Electron Beam in RIA R&D

Itacil C. Gomes, Jerry Nolen, and Claude Reed

Proceedings of the 6th International Conference on Radioactive Nuclear Beams (RNB6), Argonne, IL, September 22-26, 2003; Nucl. Phys. **A746**, 453c-456c (2004)

Superconducting Linac Beam Dynamics with High-Order Maps for RF Resonators

Andrew A. Geraci, Jerry A. Nolen, and Richard C. Pardo

Proceedings of the 6th International Conference on Charged Particle Optics (CPO-6), Greenbelt, MD, October 22-25, 2002; Nucl. Instrum. Methods **A519**, 388-395 (2004)

Heavy-Ion Beam Dynamics in the RIA Accelerators

P. N. Ostroumov

Proceedings of the 6th International Conference on Charged Particle Optics (CPO-6), Greenbelt, MD, October 22-25, 2002; Nucl. Instrum. Methods **A519**, 412-424 (2004)

Simulations of Effusion from ISOL Target/Ion Source Systems

B. Mustapha and J. A. Nolen

Proceedings of the 21st World Conference of the International Nuclear Target Development Society, Argonne, IL, November 4-8, 2002; Nucl. Instrum. Methods **A521**, 59-64 (2004)

Rotating Target Wheel System for Super-Heavy Element Production at ATLAS

John P. Greene, Andreas Heinz, Joe Falout, and Robert V. F. Janssens

Proceedings of the 21st World Conference of the International Nuclear Target Development Society, Argonne, IL, November 4-8, 2002; Nucl. Instrum. Methods **A521**, 214-221 (2004)

Calculated Intensity of High-Energy Neutron Beams

B. Mustapha, J. A. Nolen, and B. B. Back

Proceedings of the 21st World Conference of the International Nuclear Target Development Society, Argonne, IL, November 4-8, 2002; Nucl. Instrum. Methods **A521**, 247-253 (2004)

Heavy-Ion Beams Required for the RIA Accelerator

R. C. Pardo, C. L. Jiang, J. A. Nolen, K. E. Rehm, and G. Savard

Proceedings of the 10th International Conference on Ion Sources (ICIS2003), Dubna, Russia, September 8-13, 2003; Rev. Sci. Instrum. **75**, 1427-1430 (2004)

Magnetic Field Upgrade of Argonne National Laboratory 14 GHz ECR Ion Source

R. C. Vondrasek, R. Scott, and R. C. Pardo

Proceedings of the 10th International Conference on Ion Sources (ICIS2003), Dubna, Russia, September 8-13, 2003; Rev. Sci. Instrum. **75**, 1532-1534 (2004)

Electron-Ion Collider at CEBAF: New Insights and Conceptual Progress

Ya. Derbenev, A. Afanasev, K. Beard, A. Bogacz, P. Degtiarenko, J. Delayen, A. Hutton, G. A. Krafft, R. Li, L. Merminga, M. Poelker, B. Yunn, Y. Zhang, and P. Ostroumov

Proceedings of the 9th European Particle Accelerator Conference (EPAC04), Lucerne, Switzerland, July 5-9, 2004, pp. 893-895 (2004)

RF Focusing of Low-Charge-to-Mass-Ratio Heavy-Ions in Superconducting Linac

E. S. Masunov, D. A. Efimov, and P. N. Ostroumov

Proceedings of the 9th European Particle Accelerator Conference (EPAC04), Lucerne, Switzerland, July 5-9, 2004, pp. 1405-1407 (2004)

Multiple-Charge-State Beam Steering in High-Intensity Heavy-Ion Linacs

E. S. Lessner and P. N. Ostroumov

Proceedings of the 9th European Particle Accelerator Conference (EPAC04), Lucerne, Switzerland, July 5-9, 2004, pp. 1476-1478 (2004)

Beam Loss Studies in High-Intensity Heavy-Ion Linacs

P. N. Ostroumov, V. N. Aseev, E. S. Lessner, and B. Mustapha

Proceedings of the 9th European Particle Accelerator Conference (EPAC04), Lucerne, Switzerland, July 5-9, 2004, pp. 2176-2178 (2004)

A Novel Device for Non-Intersecting Bunch Shape Measurement at the High Current GSI-Linac

P. Forck, Ch. Dorn, M. Herty, P. Strehl, V. Peplov, and S. Sharamentov

Proceedings of the 9th European Particle Accelerator Conference (EPAC04), Lucerne, Switzerland, July 5-9, 2004, pp. 2541-2543 (2004)

Electron-Ion Collider at CEBAF: New Insights and Conceptual Progress

Ya. Derbenev, A. Afanasev, K. Beard, A. Bogacz, P. Degtiarenko, J. Delayen, A. Hutton, G. A. Krafft, R. Li,

L. Merminga, M. Poelker, B. Yunn, Y. Zhang, and P. Ostroumov

9th European Particle Accelerator Conference (EPAC04), Lucerne, Switzerland, July 5-9, 2004, Abstract No. MOPLT153 (2004)

RF Focusing of Low-Charge-to-Mass Ratio Heavy-Ions in a Superconducting Linac

E. S. Masunov, D. A. Efimov, and P. N. Ostroumov

9th European Particle Accelerator Conference (EPAC04), Lucerne, Switzerland, July 5-9, 2004, Abstract No. TUPLT111 (2004)

Multiple-Charge-State Beam Steering in High-Intensity Heavy-Ion Linacs

E. S. Lessner and P. N. Ostroumov

9th European Particle Accelerator Conference (EPAC04), Lucerne, Switzerland, July 5-9, 2004, Abstract No. TUPLT147 (2004)

Beam Loss Studies in High-Intensity Heavy-Ion Linacs

P. N. Ostroumov, V. N. Aseev, E. S. Lessner, and B. Mustapha

9th European Particle Accelerator Conference (EPAC04), Lucerne, Switzerland, July 5-9, 2004, Abstract No. WEPLT145 (2004)

A Novel Device for Non-Intersecting Bunch Shape Measurement at the High Current GSI-Linac

P. Forck, Ch. Dorn, M. Herty, P. Strehl, V. Peplov, and S. Sharamentov

9th European Particle Accelerator Conference (EPAC04), Lucerne, Switzerland, July 5-9, 2004, Abstract No. THPLT030 (2004)

Beam Intensity Adjustment in the RIA Driver Linac

P. N. Ostroumov, J. A. Nolen, S. I. Sharamentov, and A. V. Novikov-Borodin

XXII International Linear Accelerator Conference (LINAC2004), Lübeck, Germany, August 16-20, 2004, Abstract No. MOP01 (2004)

Advanced Beam-Dynamics Simulation Tools for RIA

T. P. Wangler, R. Garnett, N. Aseev, P. N. Ostroumov, R. Crandall, D. Gorelov, R. C. York, J. Qiang, and R. Ryne

XXII International Linear Accelerator Conference (LINAC2004), Lübeck, Germany, August 16-20, 2004, Abstract No. MOP71 (2004)

Alternating Phase Focusing in Low-Velocity Heavy-Ion Superconducting Linac

P. N. Ostroumov, A. A. Kolomiets, and E. S. Masunov

XXII International Linear Accelerator Conference (LINAC2004), Lübeck, Germany, August 16-20, 2004, Abstract No. TUP26 (2004)

End-to-End Beam Dynamics Simulations for the ANL RIA Driver Linac

P. N. Ostroumov

XXII International Linear Accelerator Conference (LINAC2004), Lübeck, Germany, August 16-20, 2004, Abstract No. TH204 (2004)

Superconducting $\beta = 0.15$ Quarter-Wave Cavity for RIA

J. D. Fuerst, M. Kedzie, M. P. Kelly, and K. W. Shepard

XXII International Linear Accelerator Conference (LINAC2004), Lübeck, Germany, August 16-20, 2004, Abstract No. THP05 (2004)

Cold Tests of a Superconducting Co-Axial Half-Wave Cavity for RIA

J. D. Fuerst, M. Kedzie, M. P. Kelly, and K. W. Shepard

XXII International Linear Accelerator Conference (LINAC2004), Lübeck, Germany, August 16-20, 2004, Abstract No. THP06 (2004)

Penning Traps at RIA

Jason Clark

2004 Fall Meeting of the Division of Nuclear Physics of the American Physical Society, Chicago, IL, October 27-30, 2004; Bull. Am. Phys. Soc. **49**, 9 (2004)

Research with In-Flight Beams from Fragment Separators

Isao Tanihata

2004 Fall Meeting of the Division of Nuclear Physics of the American Physical Society, Chicago, IL, October 27-30, 2004; Bull. Am. Phys. Soc. **49**, 15 (2004)

Modeling Radiation Effects Near High Power Production Targets at Heavy Ion Facilities

I. C. Gomes, I. Baek, J. A. Nolen, S. G. Mashnik, and K. K. Gudima

2004 Fall Meeting of the Division of Nuclear Physics of the American Physical Society, Chicago, IL, October 27-30, 2004; Bull. Am. Phys. Soc. **49**, 44 (2004)

Beam Stripping Solutions for RIA

E. Simmons, K. Chipps, U. Greife, J. Livesay, J. Nolen, and M. Portillo

2004 Fall Meeting of the Division of Nuclear Physics of the American Physical Society, Chicago, IL, October 27-30, 2004; Bull. Am. Phys. Soc. **49**, 45 (2004)

MEDIUM-ENERGY NUCLEAR PHYSICS RESEARCH

Flavor Decomposition of the Sea-Quark Helicity Distributions in the Nucleon from Semiinclusive Deep Inelastic Scattering

A. Airapetian *et al.* (HERMES Collaboration)
Phys. Rev. Lett. **92**, 012005/1-5 (2004)

Search for Anomalously Heavy Isotopes of Helium in the Earth's Atmosphere

P. Mueller, L.-B. Wang, R. J. Holt, Z.-T. Lu, T. P. O'Connor, and J. P. Schiffer
Phys. Rev. Lett. **92**, 022501/1-4 (2004)

Parity-Violating Electron Deuteron Scattering and the Proton's Neutral Weak Axial Vector Form Factor

T. M. Ito *et al.* (SAMPLE Collaboration)
Phys. Rev. Lett. **92**, 102003/1-4 (2004)

Counting Individual ^{41}Ca Atoms with a Magneto-Optical Trap

I. D. Moore, K. Bailey, J. Greene, Z.-T. Lu, P. Müller, T. P. O'Connor, Ch. Geppert, K. D.A. Wendt, and L. Young
Phys. Rev. Lett. **92**, 153002/1-4 (2004)

Laser Spectroscopic Determination of the ^6He Nuclear Charge Radius

L.-B. Wang, P. Mueller, K. Bailey, G. W. F. Drake, J. P. Greene, D. Henderson, R. J. Holt, R. V. F. Janssens, C. L. Jiang, Z.-T. Lu, T. P. O'Connor, R. C. Pardo, M. Paul, K. E. Rehm, J. P. Schiffer, and X. D. Tang
Phys. Rev. Lett. **93**, 142501/1-4 (2004)

Angular Distributions of Λ H Bound States in $^{3,4}\text{He}(e, e'K^+)$ Reaction

F. Dohrmann *et al.*
Phys. Rev. Lett. **93**, 242501/1-4 (2004)

Evidence for a Narrow $|S| = 1$ Baryon State at a Mass of 1528 MeV in Quasi-Real Photoproduction

A. Airapetian *et al.* (HERMES Collaboration)
Phys. Lett. **B585**, 213-222 (2004)

Hard Exclusive Electroproduction of $\pi^+\pi^-$ Pairs

A. Airapetian *et al.* for the HERMES Collaboration
Phys. Lett. **B599**, 212-222 (2004)

Implications of the Discrepancy Between Proton Form Factor Measurements

J. Arrington
Phys. Rev. C **69**, 022201(R)/1-5 (2004)

Evidence for Two-Photon Exchange Contributions in Electron-Proton and Positron-Proton Elastic Scattering

J. Arrington
Phys. Rev. C **69**, 032201/1-5 (2004)

Measurements of Electron-Proton Elastic Cross Sections for $0.4 < Q^2 < 5.5$ (GeV/c) 2

M. E. Christy *et al.*
Phys. Rev. C **70**, 015206/1-15 (2004)

Coulomb Distortion in High- Q^2 Elastic $e-p$ Scattering

John Arrington and Ingo Sick
Phys. Rev. C **70**, 028203/1-3 (2004)

Near Threshold Electroproduction of the ω Meson at $Q^2 \approx 0.5 \text{ GeV}^2$ P. Ambrozewicz *et al.*Phys. Rev. C **70**, 035203/1-9 (2004)

Basic Instrumentation for Hall A at Jefferson Lab

J. Alcorn *et al.*Nucl. Instrum. Methods **A522**, 294-346 (2004)

Nuclear Polarization of Molecular Hydrogen Recombined on a Non-Metallic Surface

A. Airapetian *et al.* (for the HERMES Collaboration)Eur. Phys. J. D **29**, 21-26 (2004)

One Million Year Old Groundwater in the Sahara Revealed by Krypton-81 and Chlorine-36

N. C. Sturchio, X. Du, R. Purtschert, M. Sultan, L. J. Patterson, Z.-T. Lu, P. Mueller, T. Bigler, K. Bailey, T. P. O'Connor, L. Young, R. Lorenzo, R. Becker, Z. El Alfy, B. El Kalioubly, Y. Dawood, and A. M. A. Abdallah

Geophys. Res. Lett. **31**, L05503/1-4 (2004)A First Measurement of the Tensor Structure Function b_1^d

M. Contalbrigo (on behalf of the HERMES Collaboration)

Proceedings of the International Conference on the Structure and Interactions of the Photon, including the 15th International Workshop on Photon-Photon Collisions, Frascati, Italy, April 7-11, 2003; Nucl. Phys. **B126**, 41-45 (2004)Diffractive Exclusive Electroproduction of ρ^0 Mesons at HERMES

A. Airapetian (on behalf of the HERMES Collaboration)

Proceedings of the International Conference on the Structure and Interactions of the Photon, including the 15th International Workshop on Photon-Photon Collisions, Frascati, Italy, April 7-11, 2003; Nucl. Phys. **B126**, 232-236 (2004)

Modeling Neutrino Quasielastic Cross Sections on Nucleons and Nuclei

A. Bodek, H. Budd, and J. Arrington

Proceedings of the 8th Conference on Intersections of Particle and Nuclear Physics (CIPANP2003), ed. Zohreh Parsa, AIP Conference Proceedings **698**, 148-152 (2004)

Hadron Suppression in DIS at HERMES

Pasquale Di Nezza (on behalf of the HERMES Collaboration)

Proceedings of the 17th International Conference on Ultra Relativistic Nucleus-Nucleus Collisions (Quark Matter 2004), Oakland, CA, January 11-17, 2004; J. Phys. G **30**, S783-S790 (2004)Charge Radius Measurement of ^6He in an Atom Trap

P. Mueller, L.-B. Wang, K. Bailey, J. Greene, R. J. Holt, D. Henderson, R. V. F. Janssens, C. L. Jiang, Z.-T. Lu, T. P. O'Connor, R. C. Pardo, K. E. Rehm, J. P. Schiffer, X. Tang, M. Paul, and G. W. F. Drake

Conference on "Nuclei at the Limits", Argonne, IL, July 26-30, 2004, Book of Abstracts, p. 102 (2004)

Laser Spectroscopic Determination of the ^6He Charge Radius

P. Mueller, L.-B. Wang, K. Bailey, G. W. F. Drake, J. Greene, R. J. Holt, D. Henderson, R. V. F. Janssens, C. L. Jiang, Z.-T. Lu, T. P. O'Connor, R. C. Pardo, M. Paul, K. E. Rehm, J. P. Schiffer, and X. Tang

4th International Conference on Exotic Nuclei and Atomic Masses (ENAM'04), Pine Mountain, GA, September 12-16, 2004, Book of Abstracts, p. 31(2004)

Counting Individual Ca41 Atoms with a MOT for Biomedical Applications

I. D. Moore, K. Bailey, P. Mueller, Z.-T. Lu, T. P. O'Connor, L. Young, Ch. Geppert, and K. D. A. Wendt
2004 Meeting of the Division of Atomic, Molecular, and Optical Physics of the American Physical Society (DAMOP04), Tucson, AZ, May 25-29, 2004; Bull. Am. Phys. Soc. **49**, 35 (2004)

One Million Years of Groundwater History Revealed by Atom Trap Trace Analysis of Krypton-81

Peter Mueller for the Sahara Groundwater Age Collaboration
2004 Meeting of the Division of Atomic, Molecular, and Optical Physics of the American Physical Society (DAMOP04), Tucson, AZ, May 25-29, 2004; Bull. Am. Phys. Soc. **49**, 52 (2004)

Experimental Program to Measure the Electric Dipole Moment of Radium-225

E. Schulte, I. Ahmad, K. Bailey, D. Bowers, R. Holt, Z.-T. Lu, T. O'Connor, D. Potterveld, and N. Scielzo
2004 Meeting of the Division of Atomic, Molecular, and Optical Physics of the American Physical Society (DAMOP04), Tucson, AZ, May 25-29, 2004; Bull. Am. Phys. Soc. **49**, 60 (2004)

Measuring the Nuclear Charge Radius of ${}^6\text{He}$

L.-B. Wang, P. Mueller, K. Bailey, J. Greene, D. Henderson, R. J. Holt, R. V. F. Janssens, C. L. Jiang, Z.-T. Lu, T. P. O'Connor, R. C. Pardo, K. E. Rehm, J. P. Schiffer, X.-D. Tang, G. W. F. Drake, and M. Paul
2004 Meeting of the Division of Atomic, Molecular, and Optical Physics of the American Physical Society (DAMOP04), Tucson, AZ, May 25-29, 2004; Bull. Am. Phys. Soc. **49**, 76 (2004)

Neutron Spin Structure in the Resonance Region and Quark-Hadron Duality

Patricia Solvignon and the Jefferson Lab Hall A Collaboration
2004 Fall Meeting of the Division of Nuclear Physics of the American Physical Society, Chicago, IL, October 27-30, 2004; Bull. Am. Phys. Soc. **49**, 29 (2004)

Two-Photon Exchange Corrections to the Proton Elastic Form Factors

John Arrington
2004 Fall Meeting of the Division of Nuclear Physics of the American Physical Society, Chicago, IL, October 27-30, 2004; Bull. Am. Phys. Soc. **49**, 33 (2004)

Constraints on Two-Photon Exchange Effects from High-Precision Rosenbluth Measurements

Issam Qattan and the JLAB E-01-001 Collaboration
2004 Fall Meeting of the Division of Nuclear Physics of the American Physical Society, Chicago, IL, October 27-30, 2004; Bull. Am. Phys. Soc. **49**, 34 (2004)

Measurements of G_E^p / G_M^p Using a Polarized Target

Xiaochao Zheng
2004 Fall Meeting of the Division of Nuclear Physics of the American Physical Society, Chicago, IL, October 27-30, 2004; Bull. Am. Phys. Soc. **49**, 34 (2004)

Search for Anomalously Heavy Helium Isotopes in the Earth's Atmosphere

L.-T. Wang, P. Mueller, R. J. Holt, Z.-T. Lu, T. P. O'Connor, and J. P. Schiffer
2004 Fall Meeting of the Division of Nuclear Physics of the American Physical Society, Chicago, IL, October 27-30, 2004; Bull. Am. Phys. Soc. **49**, 39 (2004)

Search for the Σ^0 and Θ^{++} Partners of the Pentaquark

Paul E. Reimer (JLAB E04-012 Collaboration)
2004 Fall Meeting of the Division of Nuclear Physics of the American Physical Society, Chicago, IL, October 27-30, 2004; Bull. Am. Phys. Soc. **49**, 80 (2004)

High Resolution Search for Pentaquark Partners in Jefferson Lab Hall A

Yi Qiang and the Jefferson Lab E04-012 and Hall A Collaborations

2004 Fall Meeting of the Division of Nuclear Physics of the American Physical Society, Chicago, IL,
October 27-30, 2004; Bull. Am. Phys. Soc. **49**, 81 (2004)

Measurement of the Double Polarization Asymmetry of Θ^+ Production on the Neutron

Xiaochao Zheng

2004 Fall Meeting of the Division of Nuclear Physics of the American Physical Society, Chicago, IL,
October 27-30, 2004; Bull. Am. Phys. Soc. **49**, 81(2004)

Laser Spectroscopic Determination of the ^6He Nuclear Charge Radius

P. Mueller, L.-B. Wang, K. Bailey, J. P. Greene, D. Henderson, R. J. Holt, R. V. F. Janssens, C. L. Jiang,
Z.-T. Lu, T. P. O'Connor, R. C. Pardo, K. E. Rehm, J. P. Schiffer, X. D. Tang, G. W. F. Drake, and M. Paul

2004 Fall Meeting of the Division of Nuclear Physics of the American Physical Society, Chicago, IL,
October 27-30, 2004; Bull. Am. Phys. Soc. **49**, 91 (2004)

Omega Electroproduction in Hall C at Jefferson Lab

Pawel Ambrozewicz and the Jefferson Lab E91-016 Collaboration

2004 Fall Meeting of the Division of Nuclear Physics of the American Physical Society, Chicago, IL,
October 27-30, 2004; Bull. Am. Phys. Soc. **49**, 96 (2004)

New Measurement of G_E/G_M for the Proton

Ralph Segel and the JLAB E-01-001 Collaboration

2004 Fall Meeting of the Division of Nuclear Physics of the American Physical Society, Chicago, IL,
October 27-30, 2004; Bull. Am. Phys. Soc. **49**, 97 (2004)

Hyperon Nucleon Interaction and Hypernuclear Structure in the $(e,e'K)$ Reaction on Light Targets

Joerg Reinhold and the Jefferson Lab E91-016 Collaboration

2004 Fall Meeting of the Division of Nuclear Physics of the American Physical Society, Chicago, IL,
October 27-30, 2004; Bull. Am. Phys. Soc. **49**, 98 (2004)

THEORETICAL PHYSICS ρ Meson Photoproduction at Low Energies

Yongseok Oh and T.-S. H. Lee

Phys. Rev. C **69**, 025201/1-14 (2004)

Baryon Form Factors of Relativistic Constituent-Quark Models

B. Juliá-Díaz, D. O. Riska, and F. Coester

Phys. Rev. C **69**, 035212/1-18 (2004)

Bare vs Effective Pairing Forces: A Microscopic Finite-Range Interaction for Hartree-Fock-Bogolyubov Calculations in Coordinate Space

T. Duguet

Phys. Rev. C **69**, 054317/1-18 (2004)

Configuration Mixing of Angular Momentum Projected Self-Consistent Mean-Field States for Neutron-Deficient Pb Isotopes

M. Bender, P. Bonche, T. Duguet, and P.-H. Heenen

Phys. Rev. C **69**, 064303/1-13 (2004)

Dynamical Coupled-Channel Model of Kaon-Hyperon Interactions

Wen-Tai Chiang, B. Saghai, F. Tabakin, and T.-S. H. Lee

Phys. Rev. C **69**, 065208/1-13 (2004)

Pseudoscalar Meson Radial Excitations

A. Höll, A. Krassnigg, and C. D. Roberts

Phys. Rev. C **70**, 042203(R)/1-5 (2004)

Aspects and Consequences of a Dressed-Quark-Gluon Vertex

M. S. Bhagwat, A. Höll, A. Krassnigg, C. D. Roberts, and P. C. Tandy

Phys. Rev. C **70**, 035205/1-15 (2004)

In-Medium Vector Meson Masses in a Chiral SU(3) Model

D. Zschesche, A. Mishra, S. Schramm, H. Stöcker, and W. Greiner

Phys. Rev. C **70**, 045202/1-13 (2004)

Axial Transition Form Factors and Pion Decay of Baryon Resonances

B. Juliá-Díaz, D. O. Riska, and F. Coester

Phys. Rev. C **70**, 045204/1-8 (2004)Constraints on the ${}^7\text{Be}(p,\gamma){}^8\text{B}$ Radiative Capture Rate from Charge Symmetry

Henning Esbensen

Phys. Rev. C **70**, 047603/1-4 (2004)Quantum Monte Carlo Calculations of Excited States in $A = 6 - 8$ Nuclei

Steven C. Pieper, R. B. Wiringa, and J. Carlson

Phys. Rev. C **70**, 054325/1-11 (2004)

Order Generated by Random Many-Body Dynamics

Alexander Volya and Vladimir Zelevinsky

Acta Phys. Hungarica **19**, 221-225 (2004)

Electromagnetic Meson Production in the Nucleon Resonance Region

V. D. Burkert and T.-S. H. Lee

Int. J. Mod. Phys. E **13**, 1035-1112 (2004)

Pairing Correlations in Nuclei: Old Knowledge and New Ideas

Vladimir Zelevinsky and Alexander Volya

Proceedings of the International Conference on Collective Motion in Nuclei Under Extreme Conditions (COMEX 1), Paris, France, June 10-13, 2003; Nucl. Phys. **A731**, 299-310 (2004)

Dyson-Schwinger Equations: An Instrument for Hadron Physics

A. Krassnigg and C. D. Roberts

Proceedings of the 17th International IUPAP Conference on Few-Body Problems in Physics (Few-Body 17), Durham, NC, June 5-10, 2003; Nucl. Phys. **A737**, 7-15 (2004)

A Replay of Few-Body Reactions in Particle Cosmology

W.-Y. P. Hwang, T.-S. H. Lee, and Bo-Qiang Ma

Proceedings of the 17th International IUPAP Conference on Few-Body Problems in Physics (Few-Body 17), Durham, NC, June 5-10, 2003; Nucl. Phys. **A737**, 294-297 (2004)

Neutron Matter: A Superfluid Gas

S.-Y. Chang, J. Morales, Jr., V. R. Pandharipande, D. G. Ravenhall, J. Carlson, Steven C. Pieper, R. B. Wiringa, and K. E. Schmidt

Proceedings of the 6th International Conference on Radioactive Nuclear Beams (RNB6), Argonne, IL, September 22-26, 2003; Nucl. Phys. **A746**, 215c-221c (2004)

Refraction and Dispersion in Optical Glass

D. Y. Smith, E. Shiles, and Mitio Inokuti

Proceedings of the 12th International Conference on Radiation Effects in Insulators, Gramado, Brazil, August 31-September 5, 2003; Nucl. Instrum. Methods **B218**, 170-175 (2004)

DSEs, The Pion, and Related Matters

A. Krassnigg and C. D. Roberts

Proceedings of the 2nd International Conference on Nuclear and Particle Physics with CEBAF at JLab, Dubrovnik, Croatia, May 26-31, 2003; Fizika **B13**, 143-152 (2004)

Unifying Aspects of Light- and Heavy-Systems

C. D. Roberts

Proceedings of the International School on Heavy Quark Physics, Dubna, Moscow Region, Russia, May 27-June 1, 2002; Lect. Notes Phys. **647**, 149-188 (2004)

Challenges in Coupled-Channels Calculations of Heavy-Ion Fusion Reactions

Henning Esbensen

Proceedings of the International Conference FUSION03: From a Tunneling Nuclear Microscope to Nuclear Processes in Matter, Matsushima, Miyagi, Japan, November 12-15, 2003; Progress of Theoretical Physics Supplement **154**, 11-20 (2004)

DSE's and Pseudoscalar Mesons: An Aperçu

A. Höll, A. Krassnigg, and C. D. Roberts

Proceedings of the International Workshop on Light Cone Physics: Hadrons and Beyond (LC03), Durham, UK, August 5-9, 2003, ed. S. Dalley, Report IPPP/03/71, pp. 158-165 (2004)

Models of Meson-Baryon Reactions in the Nucleon Resonance Region

T.-S. H. Lee, A. Matsuyama, and T. Sato

Proceedings of the 9th International Workshop on the Physics of Excited Nucleons (NSTAR 2004), Grenoble, France, March 24-27, 2004, eds. Jean-Paul Bocquet, Viatcheslav Kuznetsov, and Dominique Rebreyend (World Scientific Pub. Co. 2004) pp. 104-115

Quantum Monte Carlo Calculations of Light Nuclei and Neutron Drops

Steven C. Pieper

22nd International Nuclear Physics Conference (INPC2004), Göteborg, Sweden, June 27-July 2, 2004, Book of Abstracts, p. 36 (2004)

A Microscopic Finite-Range Pairing Interaction for HFB Calculations in Coordinate Space

T. Duguet

Conference on "Nuclei at the Limits", Argonne, IL, July 26-30, 2004, Book of Abstracts, p. 48 (2004)

Constraints on the ${}^7\text{Be}(p,\gamma){}^8\text{B}$ Radiative Capture

H. Esbensen

Conference on "Nuclei at the Limits", Argonne, IL, July 26-30, 2004, Book of Abstracts, p. 50 (2004)

Ab Initio Theory of Light Nuclei

R. B. Wiringa

Conference on "Nuclei at the Limits", Argonne, IL, July 26-30, 2004, Book of Abstracts, p. 164 (2004)

Can Modern Nuclear Hamiltonians Tolerate a Bound Tetraneutron?

Steven C. Pieper

4th International Conference on Exotic Nuclei and Atomic Masses (ENAM'04), Pine Mountain, GA, September 12-16, 2004, Book of Abstracts, p. 46 (2004)

How Fast, Realistically: *Ab initio* Calculations of Low-Energy Astrophysical Reaction Rates

K. M. Nollett

2004 Annual April Meeting of the American Physical Society, Denver, CO, May 1-4, 2004; Bull. Am. Phys. Soc. **49**, 49 (2004)

Correlations in Light Nuclei

Robert B. Wiringa

2004 Annual April Meeting of the American Physical Society, Denver, CO, May 1-4, 2004; Bull. Am. Phys. Soc. **49**, 170 (2004)

Spectroscopic Factors and Particle Widths in Light Nuclei

K. M. Nollett, J. P. Schiffer, K. E. Rehm, and A. H. Wuosmaa

2004 Fall Meeting of the Division of Nuclear Physics of the American Physical Society, Chicago, IL, October 27-30, 2004; Bull. Am. Phys. Soc. **49**, 23 (2004)

A Measurement of the Neutron MDM Interaction in Silicon

Donald Koetke, Thomas Dombeck, Helmut Kaiser, Murray Peshkin, Robert Smither, and Shirvel Stanislaus

2004 Fall Meeting of the Division of Nuclear Physics of the American Physical Society, Chicago, IL, October 27-30, 2004; Bull. Am. Phys. Soc. **49**, 46 (2004)

A Model for Investigating the Parity of Θ Using ${}^3\bar{\text{He}}$ Target

Yongseok Oh, T.-S. H. Lee, and Kanzo Nakayama

2004 Fall Meeting of the Division of Nuclear Physics of the American Physical Society, Chicago, IL, October 27-30, 2004; Bull. Am. Phys. Soc. **49**, 80 (2004)

Microscopic Low-Energy Nuclear Reactions for Astrophysics and Applied Physics

R. B. Wiringa

2004 Fall Meeting of the Division of Nuclear Physics of the American Physical Society, Chicago, IL,
October 27-30, 2004; Bull. Am. Phys. Soc. **49**, 102 (2004)

The ^8B S-Factor Extracted from Coulomb Dissociation Experiments

Henning Esbensen, George F. Bertsch, and Kurt A. Snover

2004 Fall Meeting of the Division of Nuclear Physics of the American Physical Society, Chicago, IL,
October 27-30, 2004; Bull. Am. Phys. Soc. **49**, 103 (2004)