

**PUBLICATIONS DURING 2002****HEAVY-ION NUCLEAR PHYSICS RESEARCH**

Energy Dependence of Particle Multiplicities in Central Au + Au Collisions

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

Phys. Rev. Lett. **88**, 022302/1-4 (2002)

Direct Decay from the Superdeformed Band to the Yrast Line in  ${}_{66}^{152}\text{Dy}_{86}$

T. Lauritsen, M. P. Carpenter, T. Døssing, P. Fallon, B. Herskind, R. V. F. Janssens, D. G. Jenkins, T. L. Khoo, F. G. Kondev, A. Lopez-Martens, A. O. Macchiavelli, D. Ward, K. S. Abu Saleem, I. Ahmad, R. Clark, M. Cromaz, J. P. Greene, F. Hannachi, A. M. Heinz, A. Korichi, G. Lane, C. J. Lister, P. Reiter, D. Seweryniak, S. Siem, R. C. Vondrasek, and I. Wiedenhöver

Phys. Rev. Lett. **88**, 042501/1-4 (2002)

Melting of Crystalline Confined Plasmas

J. P. Schiffer

Phys. Rev. Lett. **88**, 205003/1-4 (2002)

Prompt Proton Decay Scheme of  ${}^{59}\text{Cu}$

D. Rudolph, C. Andreoiu, C. Fahlander, R. J. Charity, M. Devlin, D. G. Sarantites, L. G. Sobotka, D. P. Balamuth, J. Eberth, A. Galindo-Uribarri, P. A. Hausladen, D. Seweryniak, and Th. Steinhardt

Phys. Rev. Lett. **89**, 022501/1-4 (2002)

Unexpected Behavior of Heavy-Ion Fusion Cross Sections at Extreme Sub-Barrier Energies

C. L. Jiang, H. Esbensen, K. E. Rehm, B. B. Back, R. V. F. Janssens, J. A. Caggiano, P. Collon, J. Greene, A. M. Heinz, D. J. Henderson, I. Nishinaka, T. O. Pennington, and D. Seweryniak

Phys. Rev. Lett. **89**, 052701/1-4 (2002)

Large Angle Elastic Alpha Scattering on a  $N = Z$  Nucleus Above  $A = 40$

K. E. Rehm, C. L. Jiang, I. Ahmad, J. Caggiano, P. Collon, J. P. Greene, D. Henderson, A. Heinz, R. V. F. Janssens, R. C. Pardo, T. Pennington, J. P. Schiffer, R. H. Siemssen, A. H. Wuosmaa, M. Paul, and P. Mohr

Phys. Rev. Lett. **89**, 132501/1-4 (2002)

Pseudorapidity and Centrality Dependence of the Collective Flow of Charged Particles in Au + Au Collisions at  $\sqrt{s_{NN}} = 130$  GeV

B. B. Back *et al.*

Phys. Rev. Lett. **89**, 222301/1-4 (2002)

Octupole Vibration in Superdeformed  $^{152}_{66}\text{Dy}_{86}$

T. Lauritsen, R. V. F. Janssens, M. P. Carpenter, T. Døssing, P. Fallon, B. Herskind, D. G. Jenkins, T. L. Khoo, F. G. Kondev, A. Lopez-Martens, A. O. Macchiavelli, D. Ward, K. S. Abu Saleem, I. Ahmad, R. M. Clark, M. Cromaz, T. Døssing, A. M. Heinz, A. Korichi, G. Lane, C. J. Lister, and D. Seweryniak  
Phys. Rev. Lett. **89**, 282501/1-4 (2002)

Isovector Pairing in Odd-Odd  $N = Z$   $^{50}\text{Mn}$

C. D. O'Leary, M. A. Bentley, S. M. Lenzi, G. Martínez-Pinedo, D. D. Warner, A. M. Bruce, J. A. Cameron, M. P. Carpenter, C. N. Davids, P. Fallon, L. Frankland, W. Gelletly, R. V. F. Janssens, D. T. Joss, C. J. Lister, P. H. Regan, P. Reiter, B. Rubio, D. Seweryniak, C. E. Svensson, S. M. Vincent, and S. J. Williams  
Phys. Lett. **B525**, 49-55 (2002)

First Observation of Excited Structures in Neutron-Deficient  $^{179}\text{Hg}$ : Evidence for Multiple Shape Coexistence

F. G. Kondev, M. P. Carpenter, R. V. F. Janssens, C. J. Lister, K. Abu Saleem, I. Ahmad, H. Amro, J. Caggiano, C. N. Davids, A. Heinz, B. Herskind, T. L. Khoo, T. Lauritsen, W. C. Ma, J. J. Ressler, W. Reviol, L. L. Riedinger, D. G. Sarantites, D. Seweryniak, S. Siem, A. A. Sonzogno, P. G. Varmette, and I. Wiedenhöver  
Phys. Lett. **B528**, 221-227 (2002)

Identification of Excited States in  $^{140}\text{Dy}$

D. M. Cullen, M. P. Carpenter, C. N. Davids, A. M. Fletcher, S. J. Freeman, R. V. F. Janssens, F. G. Kondev, C. J. Lister, L. K. Pattison, D. Seweryniak, J. F. Smith, A. M. Bruce, K. Abu Saleem, I. Ahmad, A. Heinz, T. L. Khoo, E. F. Moore, G. Mukherjee, C. Wheldon, and A. Woehr  
Phys. Lett. **B529**, 42-49 (2002)

Structure of  $^{52,54}\text{Ti}$  and Shell Closures in Neutron-Rich Nuclei Above  $^{38}\text{Ca}$

R. V. F. Janssens, B. Fornal, P. F. Mantica, B. A. Brown, R. Broda, P. Bhattacharyya, M. P. Carpenter, M. Cinausero, P. J. Daly, A. D. Davies, T. Glasmacher, Z. W. Grabowski, D. E. Groh, M. Honma, F. G. Kondev, W. Krblas, T. Lauritsen, S. N. Liddick, S. Lunardi, N. Marginean, T. Mizusaki, D. J. Morrissey, A. C. Morton, W. F. Mueller, T. Otsuka, T. Pawlat, D. Seweryniak, H. Schatz, A. Stolz, S. L. Tabor, C. A. Ur, G. Viesti, I. Wiedenhöver, and J. Wrzesiński  
Phys. Lett. **B546**, 55-62 (2002)

Spectroscopy of Transfermium Nuclei:  $^{252}_{102}\text{No}$ 

R.-D. Herzberg, N. Amzal, F. Becker, P. A. Butler, A. J. C. Chewter, J. F. C. Cocks, O. Dorvaux, K. Eskola, J. Gerl, P. T. Greenlees, N. J. Hammond, K. Hauschild, K. Helariutta, F. Heßberger, M. Houry, G. D. Jones, P. M. Jones, R. Julin, S. Juutinen, H. Kankaanpää, H. Kettunen, T. L. Khoo, W. Korten, P. Kuusiniemi, Y. Le Coz, M. Leino, C. J. Lister, R. Lucas, M. Muikku, P. Nieminen, R. D. Page, P. Rahkila, P. Reiter, Ch. Schlegel, C. Scholey, O. Stezowski, Ch. Theisen, W. H. Trazaska, J. Uusitalo, and H. J. Wollersheim  
Phys. Rev. C **65**, 014303/1-7 (2002)

Observation of Rotational Bands in the Neutron-Rich  $^{107}\text{Ru}$  Nucleus

S. J. Zhu, J. H. Hamilton, A. V. Ramayya, J. K. Hwang, C. Y. Gan, X. Q. Zhang, C. J. Beyer, J. Kormicki, M. Sakhaee, L. M. Yang, L. Y. Zhu, R. Q. Xu, Z. Zhang, Z. Jiang, W. C. Ma, E. F. Jones, P. M. Gore, J. D. Cole, M. W. Drigert, I. Y. Lee, J. O. Rasmussen, T. N. Ginter, Y. X. Luo, S. C. Wu, C. Folden, P. Fallon, P. Zielinski, K. E. Gregorich, A. O. Macchiavelli, S. J. Asztalos, G. M. Ter-Akopian, Yu. Ts. Oganessian, M. A. Stoyer, J. P. Greene, R. V. F. Janssens, and I. Ahmad  
Phys. Rev. C **65**, 014307/1-6 (2002)

Excitations of Two- and Three-Valence-Proton Nuclei  $^{107}\text{Te}$  and  $^{135}\text{I}$ 

S. K. Saha, C. Constantinescu, P. J. Daly, P. Bhattacharyya, C. T. Zhang, Z. W. Grabowski, B. Fornal, R. Broda, I. Ahmad, D. Seweryniak, I. Wiedenhöver, M. P. Carpenter, R. V. F. Janssens, T. L. Khoo, T. Lauritsen, C. J. Lister, and P. Reiter  
Phys. Rev. C **65**, 017302/1-4 (2002)

 $^{100}\text{Sn}$  Core Excitations in  $^{102}\text{In}$ 

M. Lipoglavšek, C. Baktash, M. P. Carpenter, D. J. Dean, T. Engeland, C. Fahlander, M. Hjorth-Jensen, R. V. F. Janssens, A. Likar, J. Nyberg, E. Osnes, S. D. Paul, A. Piechaczek, D. C. Radford, D. Rudolph, D. Seweryniak, D. G. Sarantites, M. Vencelj, and C.-H. Yu  
Phys. Rev. C **65**, 021302(R)/1-5 (2002)

Rotational Structures in  $^{129}\text{Nd}$  and Signature Splitting Systematics of the  $\nu h_{11/2}$  Bands in A ~130 Nuclei

O. Zeidan, D. J. Hartley, L. L. Reidinger, M. Danchev, W. Reviol, W. D. Weintraub, Jing-ye Zhang, A. Galindo-Uribarri, C. J. Gross, S. D. Paul, C. Baktash, M. Lipoglavšek, D. C. Radford, C. H. Yu, D. G. Sarantites, M. Devlin, M. P. Carpenter, R. V. F. Janssens, D. Seweryniak, and E. Padilla  
Phys. Rev. C **65**, 024303/1-15 (2002)

First Observation of Excited States in  $^{139}\text{I}$ 

W. Urban, T. Rzaca-Urban, A. Korgul, J. L. Durell, M. J. Leddy, M. A. Jones, W. R. Phillips, A. G. Smith, B. J. Varley, I. Ahmad, L. R. Morss, and N. Schulz  
Phys. Rev. C **65**, 024307/1-4 (2002)

Angular Correlation, Spin Alignment, and Resonance Behavior in  $^{12}\text{C} + ^{12}\text{C}$  Inelastic Scattering  
A. H. Wuosmaa, D. J. Hofmann, B. B. Back, D. J. Blumenthal, S. Fischer, D. J. Henderson,  
R. V. F. Janssens, C. J. Lister, V. Nanal, D. Nisius, M. D. Rhein, and P. R. Wilt  
Phys. Rev. C **65**, 024609/1-11 (2002)

Centrality Dependence of Charged Particle Multiplicity at Midrapidity in Au + Au Collisions at  
 $\sqrt{s_{NN}} = 130$  GeV  
B. B. Back *et al.* (PHOBOS Collaboration)  
Phys. Rev. C **65**, 031901(R)/1-4 (2002)

Highly Deformed Band Structure in  $^{57}\text{Co}$   
W. Reviol, D. G. Sarantites, R. J. Charity, V. Tomov, J. Dobaczewski, D. Rudolph,  
R. M. Clark, M. Cromaz, P. Fallon, A. O. Macchiavelli, M. P. Carpenter, and D. Seweryniak  
Phys. Rev. C **65**, 034309/1-10 (2002)

Competition Between Terminating and Collective Structures Above Spin  $40 \hbar$  in  $^{154}\text{Dy}$   
W. C. Ma, R. V. F. Janssens, T. L. Khoo, I. Ragnarsson, M. A. Riley, M. P. Carpenter,  
J. R. Terry, J. P. Zhang, I. Ahmad, P. Bhattacharyya, P. J. Daly, S. M. Fischer, J. H. Hamilton,  
T. Lauritsen, D. T. Nisius, A. V. Ramayya, R. K. Vadapalli, P. G. Varmette, J. W. Watson,  
C. T. Zhang, and S. J. Zhu  
Phys. Rev. C **65**, 034312/1-8 (2002)

$\beta$ -Decay Studies of  $^{135-137}\text{Sn}$  Using Selective Resonance Laser Ionization Techniques  
J. Shergur, B. A. Brown, V. Fedoseyev, U. Köster, K.-L. Kratz, D. Seweryniak, W. B. Walters,  
A. Wöhr, D. Fedorov, M. Hannawald, M. Hjorth-Jensen, V. Mishin, B. Pfeiffer, J. J. Ressler,  
H. O. U. Fynbo, P. Hoff, H. Mach, T. Nilsson, K. Wilhelmsen-Rolander, H. Simon,  
A. Bickley, and the ISOLDE Collaboration  
Phys. Rev. C **65**, 034313/1-9 (2002)

Structure of High-Spin States in  $^{91}\text{Sr}$  and  $^{92}\text{Sr}$   
E. A. Stefanova, M. Danchev, R. Schwengner, D. L. Balabanski, M. P. Carpenter,  
M. Djongolov, S. M. Fischer, D. J. Hartley, R. V. F. Janssens, W. F. Mueller, D. Nisius,  
W. Reviol, L. L. Riedinger, and O. Zeidan  
Phys. Rev. C **65**, 034323/1-10 (2002)

Widths of Astrophysically Important Resonances in  $^{18}\text{Ne}$   
B. Harss, C. L. Jiang, K. E. Rehm, J. P. Schiffer, J. Caggiano, P. Collon, J. P. Greene,  
D. Henderson, A. Heinz, R. V. F. Janssens, J. Nolen, R. C. Pardo, T. Pennington,  
R. H. Siemssen, A. A. Sonzogni, J. Uusitalo, I. Wiedenhöver, M. Paul, T. F. Wang, F. Borasi,  
R. E. Segel, J. C. Blackmon, M. Smith, A. Chen, and P. Parker  
Phys. Rev. C **65**, 035803/1-9 (2002)

Toward Complete Spectroscopy of  $^{128}\text{Pr}$  and Rotational Structures in  $^{126}\text{Pr}$ 

D. J. Hartley, L. L. Riedinger, M. Danchev, W. Reviol, O. Zeidan, Jing-ye Zhang, A. Galindo-Uribarri, C. J. Gross, C. Baktash, M. Lipoglavsek, S. D. Paul, D. C. Radford, C.-H. Yu, D. G. Sarantites, M. Devlin, M. P. Carpenter, R. V. F. Janssens, D. Seweryniak, and E. Padilla  
Phys. Rev. C **65**, 044329/1-22 (2002)

 $\beta$  Decay Studies of  $^{109,107}\text{Sb}$ 

J. J. Ressler, W. B. Walters, D. S. Brenner, C. N. Davids, A. Heinz, G.-L. Poli, J. Shergur, and D. Seweryniak  
Phys. Rev. C **65**, 044330/1-12 (2002)

Testing Mean-Field Models Near the  $N = Z$  Line:  $\gamma$ -Ray Spectroscopy of the  $T_z = \frac{1}{2}$  Nucleus  $^{73}\text{Kr}$ 

N. S. Kelsall, S. M. Fischer, D. P. Balamuth, G. C. Ball, M. P. Carpenter, R. M. Clark, J. Durell, P. Fallon, S. J. Freeman, P. A. Hausladen, R. V. F. Janssens, D. G. Jenkins, M. Leddy, C. J. Lister, A. O. Macchiavelli, D. G. Sarantites, D. C. Schmidt, D. Seweryniak, C. E. Svensson, B. J. Varley, S. Vincent, R. Wadsworth, A. N. Wilson, A. V. Afanasjev, S. Frauendorf, I. Ragnarsson, and R. Wyss  
Phys. Rev. C **65**, 044331/1-13 (2002)

Excited States of the Proton Emitter  $^{105}\text{Sb}$ 

M. Lipoglavšek, C. Baktash, M. P. Carpenter, D. J. Dean, T. Engeland, C. Fahlander, M. Hjorth-Jensen, R. V. F. Janssens, A. Likar, J. Nyberg, E. Osnes, S. D. Paul, A. Piechaczek, D. C. Radford, D. Rudolph, D. Seweryniak, D. G. Sarantites, M. Vencelj, and C. H. Yu  
Phys. Rev. C **65**, 051307(R)/1-4 (2002)

Core-Excited Smoothly Terminating Band in  $^{114}\text{Xe}$ 

E. S. Paul, A. J. Boston, H. J. Chantler, J. P. Nolan, M. P. Carpenter, R. V. F. Janssens, F. G. Kondev, D. Seweryniak, C. J. Chiara, D. B. Fossan, T. Koike, K. Starosta, D. R. LaFosse, A. M. Fletcher, J. C. Lisle, D. Patel, J. F. Smith, W. Reviol, D. G. Sarantites, R. Wadsworth, A. N. Wilson, and I. Ragnarsson  
Phys. Rev. C **65**, 051308(R)/1-4 (2002)

Identification of New States in  $^{26}\text{Si}$  Using the  $^{29}\text{Si}(^3\text{He}, ^6\text{He})^{26}\text{Si}$  Reaction and Consequences for the  $^{25}\text{Al}(p, \gamma)^{26}\text{Si}$  Reaction Rate in Explosive Hydrogen Burning Environments

J. A. Caggiano, W. Bradfield-Smith, R. Lewis, P. D. Parker, D. W. Visser, J. P. Greene, K. E. Rehm, D. W. Bardayan, and A. E. Champagne  
Phys. Rev. C **65**, 055801/1-6 (2002)

Centrality Dependence of the Charged Particle Multiplicity Near Midrapidity in Au + Au Collisions at  $\sqrt{s_{NN}} = 130$  and 200 GeV

B. B. Back *et al.* (PHOBOS Collaboration)  
Phys. Rev. C **65**, 061901(R)/1-4 (2002)

$T = 0$  and  $T = 1$  States in the Odd-Odd  $N = Z$  Nucleus,  ${}^{70}_{35}\text{Br}_{35}$ 

D. G. Jenkins, N. S. Kelsall, C. J. Lister, D. P. Balamuth, M. P. Carpenter, T. A. Sienko, S. M. Fischer, R. M. Clark, P. Fallon, A. Gorgen, A. O. Macchiavelli, C. E. Svensson, R. Wadsworth, W. Reviol, D. G. Sarantites, G. C. Ball, J. Rikovska Stone, O. Juillet, P. Van Isacker, A. V. Afanasjev, and S. Frauendorf  
Phys. Rev. C **65**, 064307/1-16 (2002)

Breakup Time Scale Studied in the 8 GeV/c  $\pi + {}^{197}\text{Au}$  Reaction

L. Pienkowski, K. Kwiatkowski, T. Lefort, W.-c. Hsi, L. Beaulieu, V. E. Viola, A. Botvina, R. G. Korteling, R. Laforest, E. Martin, E. Ramakrishnan, D. Rowland, A. Ruangma, E. Winchester, S. J. Yennello, B. Back, H. Breuer, S. Gushue, and L. P. Remsberg  
Phys. Rev. C **65**, 064606/1-8 (2002)

Confirmation of Triple Shape Coexistence in  ${}^{107}\text{Hg}$ : Focal Plane Spectroscopy of the  $\alpha$  Decay of  ${}^{183}\text{pb}$ 

D. G. Jenkins, A. N. Andreyev, R. D. Page, M. P. Carpenter, R. V. F. Janssens, C. J. Lister, F. G. Kondev, T. Enqvist, P. T. Greenlees, P. M. Jones, R. Julin, S. Juutinen, H. Kettunen, P. Kuusiniemi, M. Leino, A.-P. Leppannen, P. Nieminen, J. Pakarinen, P. Rahkila, J. Uusitalo, C. D. O'Leary, P. Raddon, A. Simons, R. Wadsworth, and D. T. Joss  
Phys. Rev. C **66**, 011301(R)/1-5 (2002)

Breakup of the Doubly Magic  ${}^{100}\text{Sn}$  Core

M. Lipoglavsek, C. Baktash, J. Blomqvist, M. P. Carpenter, D. J. Dean, T. Engeland, C. Fahlander, H. Hjorth-Jensen, R. V. F. Janssens, A. Likar, J. Nyberg, E. Osnes, S. D. Paul, A. Piechaczek, D. C. Radford, D. Rudolph, D. Seweryniak, D. G. Sarantites, M. Vencelj, and C.-H. Yu  
Phys. Rev. C **66**, 011302(R)/1-5 (2002)

Signature Inversion in Doubly Odd  ${}^{124}\text{La}$ 

H. J. Chantler, E. S. Paul, A. J. Boston, M. P. Carpenter, R. Charity, C. J. Chiara, P. T. W. Choy, C. N. Davids, M. Devlin, A. M. Fletcher, D. B. Fossan, D. G. Jenkins, N. S. Kelsall, T. Koike, D. R. LaFosse, P. J. Nolan, D. G. Sarantites, D. Seweryniak, J. F. Smith, K. Starosta, R. Wadsworth, and A. N. Wilson  
Phys. Rev. C **66**, 014311/1-16 (2002)

Excitation Energies in  ${}^{22}\text{Mg}$  from the  ${}^{25}\text{Mg}({}^3\text{He}, {}^6\text{He}){}^{22}\text{Mg}$  Reaction

J. A. Caggiano, W. Bradfield-Smith, J. P. Greene, R. Lewis, P. D. Parker, K. E. Rehm, and D. W. Visser  
Phys. Rev. C **66**, 015804/1-5 (2002)

Observation of Excited States in the Near-Drip-Line Nucleus  ${}^{125}\text{Pr}$ 

A. N. Wilson, D. R. LaFosse, J. F. Smith, C. J. Chiara, A. J. Boston, M. P. Carpenter, H. J. Chantler, R. Charity, P. T. W. Choy, M. Devlin, A. M. Fletcher, D. B. Fossan, R. V. F. Janssens, D. G. Jenkins, N. S. Kelsall, F. G. Kondev, T. Koike, E. S. Paul, D. G. Sarantites, D. Seweryniak, K. Starosta, and R. Wadsworth  
Phys. Rev. C **66**, 021305(R)/1-5 (2002)

First Observation of  $^{109}\text{Te}$   $\beta^+$  and Electron Capture Decay to Levels of  $^{109}\text{Sb}$ 

J. J. Ressler, W. B. Walters, C. N. Davids, D. J. Dean, A. Heinz, M. Hjorth-Jensen, D. Seweryniak, and J. Shergur  
Phys. Rev. C **66**, 024308/1-7 (2002)

Evidence for a  $1g_{9/2}$  Rotational Band in  $^{51}\text{Mn}$ 

J. Ekman, D. Rudolph, C. Fahlander, I. Ragnarsson, C. Andreoiu, M. A. Bentley, M. P. Carpenter, R. J. Charity, R. M. Clark, M. Cromaz, P. Fallon, E. Ideguchi, A. O. Macchiavelli, M. N. Mineva, W. Reviol, D. G. Sarantites, D. Seweryniak, V. Tomov, and S. J. Williams  
Phys. Rev. C **66**, 051301(R)/1-5 (2002)

Population of the 168-keV ( $g_{7/2}$ ) Excited State in  $^{103}\text{Sn}$  in the  $\alpha$  Decay of  $^{107}\text{Te}$ 

D. Seweryniak, W. B. Walters, A. Woehr, M. Lipoglavsek, J. Shergur, C. N. Davids, A. Heinz, and J. J. Ressler  
Phys. Rev. C **66**, 051307(R)/1-4 (2002)

## Proton Emission in Au + Au Collisions at 6, 8, 10.8 GeV/Nucleon

B. B. Back, R. R. Betts, J. Chang, W. C. Chang, C. Y. Chi, Y. Y. Chu, J. B. Cumming, J. C. Dunlop, W. Eldredge, S. Y. Fung, R. Ganz, E. Garcia, A. Gillitzer, G. Heintzelman, W. F. Henning, D. J. Hofman, B. Holzman, J. H. Kang, E. J. Kim, S. Y. Kim, Y. Kwon, D. McLeod, A. C. Mignerey, M. Moulson, V. Nanal, C. A. Ogilvie, R. Pak, A. Ruangma, D. E. Russ, R. K. Seto, P. J. Stankas, G. S. F. Stephans, H. Q. Wang, F. L. H. Wolfs, A. H. Wuosmaa, H. Xiang, G. H. Xu, H. B. Yao, and C. M. Zou (E917 Collaboration)  
Phys. Rev. C **66**, 054901/1-10 (2002)

Rotational Band Structures in  $N = 89$   $^{153}\text{Gd}$ 

T. B. Brown, M. A. Riley, D. Campbell, D. J. Hartley, F. G. Kondev, J. Pfohl, R. V. F. Janssens, S. M. Fischer, D. Nisius, P. Fallon, W. C. Ma, J. Simpson, and J. F. Sharpey-Schafer  
Phys. Rev. C **66**, 064320/1-13 (2002)

## The 3rd International Conference on Exotic Nuclei and Atomic Masses (ENAM2001)

C. N. Davids  
Nuclear Physics News **12**, 14-15 (2002)

A New Technique for Measuring  $g$  Factors of Excited States in Fission Fragments Using Large Arrays of Ge Detectors

D. Patel, A. G. Smith, 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. Dorveaux, and B. Roux  
J. Phys. G **28**, 649-663 (2002)

High-Resolution In-Beam Particle Spectroscopy - New Results on Prompt Proton Emission from  $^{58}\text{Cu}$

D. Rudolph, D. G. Sarantites, C. Andreoiu, C. Fahlander, D. P. Balamuth, R. J. Charity, M. Devlin, J. Eberth, A. Galindo-Uribarri, P. A. Hausladen, D. Seweryniak, L. G. Sobotka, and Th. Steinhardt  
Eur. Phys. J. A **14**, 137-146 (2002)

Evolution of Shapes in  $^{59}\text{Cu}$

C. Andreoiu, D. Rudolph, I. Ragnarsson, C. Fahlander, R. A. E. Austin, M. P. Carpenter, R. M. Clark, J. Ekman, R. V. F. Janssens, T. L. Khoo, F. G. Kondev, T. Lauritsen, T. Roderger, D. G. Sarantites, D. Seweryniak, T. Steinhardt, C. E. Svensson, O. Thelen, and J. C. Waddington  
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The Neutron and Proton Two-Particle Nucleus  $^{134}\text{Sb}$ : New Low-Spin States Observed in the Decay of  $^{134}\text{Sn}$  and an Estimate of the Energy of the  $7^-$  Isomer

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New Theoretical Results on the Proton Decay of Deformed and Near-Spherical Nuclei

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Low-K Rotational Structures in  ${}^{174}\text{Hf}$ 

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## A Recoil Separator for Research in Superheavy Element Chemistry

C. N. Davids

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

Low Cost Upgrade of 6.4 GHz ECRIS and Recent Results with 14 GHz ECRIS at JYFL

H. Koivisto, P. Heikkinen, E. Liukkonen, J. Ärje, and R. Vondrasek

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Techniques for the Measurement of Ionization Times in ECR Ion Sources Using a Fast Sputter Sample and Fast Gas Valve

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### A Post Accelerator for the U. S. Rare Isotope Accelerator Facility

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