

# Publication list 2005

## 1. J. Phys. G: Nucl. Part. Phys. 31 S1559S1562, (2005)

*"Lifetime measurements in the yrast magnetic rotational band in  $^{193}\text{Pb}$ "*

**K.A.Gladnishki**, D.L.Balabanski, P.Petkov, A.Dewald, D.Tonev, M.Axiotis, A.Fitzler,  
**M.Danchev**, S.Harissopoulos, S.Lalkovski, N.Marginean, T.Martinez, O.Moeller,  
G.Neyens, A.Spyrou, E.A.Stefanova, C.Ur

## 2. Physical Review C 72, 064315 (2005)

*Evidence for octupole correlations in  $^{124,125}\text{Ba}$*

P. Mason, G. Benzoni, A. Bracco, F. Camera, B. Million, O. Wieland, S. Leoni, A. K. Singh, A. Al-Khatib, H. Hübel, P. Bringel, A. Bürger, A. Neusser, G. Schönwasser, B. M. Nyakó, J. Timár, A. Algora, Zs. Dombrádi, J. Gál, G. Kalinka, J. Molnár, D. Sohler, L. Zolnai, K. Johász, G. B. Hagemann, C. R. Hansen, B. Herskind, B. Sletten, M. Kmiecik, A. Maj, J. Styczen, K. Zuber, F. Azaiez, K. Hauschild, A. Korichi, A. Lopez-Martens, J. Roccazz, S. Siem, F. Hannachi, J. N. Scheurer, P. Bednaraczyk, Th. Byrski, D. Curien, O. Dorvaux, G. Duchêne, B. Gall, F. Khalfallah, I. Piqueras, J. Robin, S. B. Patel, O. A. Evans, **G. Rainovski**, C. M. Petrache, D. Petrache, G. La Rana, R. Moro, G. De Angelis, P. Fallon, I.-Y. Lee, J. C. Lisle, B. Cederwall, K. Lagergren, R. M. Lieder, E. Podsvirova, W. Gast, H. Jäger, N. Redon, and A. Görgen

## 3. Physical Review C 72, 054305 (2005)

*Subnanosecond lifetime measurement for the  $T=0,3$  state of odd-odd  $N = Z = 58\text{Cu}$*

A. Costin, N. Pietralla, T. Koike, C. Vaman, T. Ahn, and **G. Rainovski**

## 4. Physical Review C 72, 029801 (2005)

*Comment on "Probing nuclear structure of  $^{124}\text{Xe}$ "*

**G. Rainovski**, D. L. Balabanski, and V. I. Dimitrov

**5. J. Phys. G: Nucl. Part. Phys. 31 No 10 (October 2005) S1741-S1746**

*Recent progress on the investigation of spontaneous formation of chirality in rotating nuclei*

T Koike, K Starosta, P Joshi, G Rainovski, J Timár, C Vaman and R Wadsworth

**6. J. Phys. G: Nucl. Part. Phys. 31 No 10 (October 2005) S1895-S1898**

*Evidence for a new region of chirality around A ~ 104*

P Joshi, S Finnigan, D B Fossan, T Koike, E S Paul, G Rainovski, K Starosta, C Vaman and R Wadsworth

**7. J. Phys. G: Nucl. Part. Phys. 31 No 10 (October 2005) S1563-S1568**

*RDM lifetime measurements in  $^{107}\text{Cd}$*

K Andgren, S F Ashley, P H Regan, E A McCutchan, N V Zamfir, L Amon, R B Cakirli, R F Casten, R M Clark, G Gürdal, K L Keyes, D A Meyer, M N Erduran, A Papenberg, N Pietralla, C Plettner, G Rainovski, R V Ribas, N J Thomas, J Vinson, D D Warner, V Werner and E Williams

**8. Physical Review C 71, 064302 (2005)**

*High-spin structure of  $^{102}\text{Ru}$*

D. Sohler, J. Timár, G. Rainovski, P. Joshi, K. Starosta, D. B. Fossan, J. Molnár, R. Wadsworth, A. Algora, P. Bednarczyk, D. Curien, Zs. Dombrádi, G. Duchene, A. Gizon, J. Gizon, D. G. Jenkins, T. Koike, A. Krasznahorkay, E. S. Paul, P. M. Raddon, J. N. Scheurer, A. J. Simons, C. Vaman, A. R. Wilkinson, L. Zolnai

**9. Physical Review C 71, 054309 (2005)**

*Highest spin discrete levels in  $^{131,132}\text{Ce}$ : Spin generation near the mesoscopic limit*

E. S. Paul, P. T. W. Choy, C. Andreoiu, A. J. Boston, A. O. Evans, C. Fox, S. Gros, P. J. Nolan, G. Rainovski, J. A. Sampson, H. C. Scraggs, A. Walker, D. E. Appelbe, D. T. Joss, J. Simpson, J. Gizon, A. Astier, N. Buorn, A. Prévost, N. Redon, O. Stézowski, B. M. Nyakó, D. Sohler, J. Timár, L. Zolnai, D. Bazzacco, S. Lunardi, C. M. Petrache, P. Bednarczyk, D. Curien, N. Kintz, and I. Ragnarsson

**10. Physical Review C 71, 044318 (2005)**

*One-phonon  $2^+_{1,ms}$  mixed-symmetry state of  $^{148}Sm$  observed in nuclear resonance fluorescence*

T.C. Li, N. Pietralla, C. Fransen, H. von Garrel, U. Kneissl, C. Kohstall, A. Linnemann, H.H. Pitz, **G. Rainovski**, A. Richter, M. Scheck, F. Stedile, P. von Brentano, P. von Neumann-Cosel, V. Werner

**11. Physical Review C 71, 034318(2005)**

*“Quasi-? band and odd-even staggering effect in  $^{102}Ru$ ”*

S. Lalkovski, **G. Rainovski**, K. Starosta, M. P. Carpenter, D. B. Fossan, S. Finnigan, S. Ilieva, P. Joshi, T. Koike, E. S. Paul, N. Pietralla, C. Vaman, and R. Wadsworth

**12. Acta Physica Polonica B36, 1029 (2005)**

*High-spin states in  $^{124}Ba$*

A. Al-Khatib, A.K. Singh, H. Hubel, P. Bringel, A. Burger, A. Neusser, G. choenwasser, G.B. Hagemann, C.R. Hansen, B. Herskind, G. Sohler, J. Timar, L. Zolnai, M. Kmiecik, A. Maj, J. Styczen, K. Zuber, K. Hauschild, A. Korichi, A. Lopez-Martens, J. Rocca, S. Siem, F. Hannachi, J.N. Scheurer, P. Bednarczyk, Th. Byrski, D. Curien, O. Dorvaux, G. Duchene, B. Gall, F. Khalfallah, I. Piqueras, J. Robin, K. Juhasz, S.B. Patel, A.O. Evans, **G. Rainovski**, A. Aioldi, G. Benzoni, A. Bracco, F. Camera, B. Million, P. Mason, A. Paleni, R. Sacchi, O. Wieland, C.M. Petrache, D. Petrache, G. La Rana, R. Moro, G. De Angelis, P. Fallon, I.-Y. Lee, J.C. Lisle, B. Cederwall, K. Lagergren, R.M. Lieder, E. Podsvirova, W. Gast, H. Jaeger, N. Redon, A. Gorgen

**13. Acta Physica Polonica B 36, 1033 (2005)**

*Search for hyperdeformation in light Xe nuclei*

B.M. Nyako, F. Papp, J. Gal, J. Molnar, J. Timar, A. Algora, Zs. Dombradi, G. Kalinka, L. olnai, K. Juhasz, A.K. Singh, H. Hubel, A. Al-Khatib, P. Bringel, A. Burger, A. Neusser, G. Schonwasser, B. Herskind, G.B. Hagemann, C.R. Hansen, G. Sletten, J.N. Scheurer, F. Hannachi, M. Kmiecik, A. Maj, J. Styczen, K. Zuber, K. Hauschild, A. Korichi, A. Lopez-Martens, J. Rocca, S. Siem, P. Bednarczyk, Th. Byrski, D. Curien, O. Dorvaux, G. Duchene, B. Gall, F. Khalfallah, I. Piqueras, J. Robin, S.B. Patel, A.O. Evans, **G. Rainovski**, A. Aioldi, G. Benzoni, A. Bracco, F. Camera, B. Million, P. Mason, A. Paleni, R. Sacchi, O. Wieland, G.La Rana, R. Moro, C.M. Petrache, D. Petrache, G. De Angelis, P. Fallon, I.-Y. Lee, J.C. Lisle, B. Cederwall, K. Lagergren, R.M. Lieder, E. Podsvirova, W. Gast, H. Jager, N. Redon, A. Gorgen

**14. The European Physical Journal A 24, 23 (2005)**

*First evidence for chirality in Tc isotopes: Spectroscopy of  $^{100}T$*

P. Joshi, A.R. Wilkinson, T. Koike, D.B. Fossan, S. Finnigan, E.S. Paul, P.M. Raddon,  
**G. Rainovski**, K. Starosta, A.J. Simons, C. Vaman, R. Wadsworth

**15. Eur.Phys.J. A 25, Supplement 1, 395 (2005)**

*Coulomb excitation of odd-A neutron-rich radioactive beams*

C.-H.Yu, C.Baktash, J.C.Batchelder, J.R.Beene, C.Bingham, **M.Danchev**, A.Galindo-Uribarri, C.J.Gross, P.A.Hausladen, W.Krolas, J.F.Liang, E.Padilla, J.Pavan, D.C.Radford

**16. Eur.Phys.J. A 25, Supplement 1, 205 (2005)**

*First nuclear moment measurement with radioactive beams by recoil-in-vacuum method: g-factor of the  $2^+_1$  state in  $^{132}Te$*

N.J.Stone, A.E.Stuchbery, **M.Danchev**, J.Pavan, C.L.Timlin, C.Baktash, C.Barton, J.R.Beene, N.Benczer-Koller, C.R.Bingham, J.Dupak, A.Galindo-Uribarri, C.J.Gross, G.Kumbartzki, D.C.Radford, J.R.Stone, N.V.Zamfir

**17. Phys.Rev.Lett. 94, 192501 (2005)**

*First Nuclear Moment Measurement with Radioactive Beams by the Recoil-in-Vacuum Technique: The g Factor of the  $2^+_1$  State in  $^{132}Te$*

N.J.Stone, A.E.Stuchbery, **M.Danchev**, J.Pavan, C.L.Timlin, C.Baktash, C.Barton, J.Beene, N.Benczer-Koller, C.R.Bingham, J.Dupak, A.Galindo-Uribarri, C.J.Gross, G.Kumbartzki, D.C.Radford, J.R.Stone, N.V.Zamfir

**18. J.Phys.(London) G31, S1735 (2005)**

*Beyond band termination in  $^{157}\text{Er}$  and the search for wobbling excitations in strongly deformed  $^{174}\text{Hf}$*

M.A.Riley, M.K.Djongolov, A.O.Evans, D.J.Hartley, R.V.F.Janssens, E.S.Paul,  
J.Simpson, A.A.Aguilar, D.E.Appelbe, C.R.Bingham, D.B.Campbell, M.P.Carpenter,  
P.Chowdhury, P.T.W.Choy, R.M.Clark, M.Cromaz, D.M.Cullen, **M.Danchev**,  
G.D.Dracoulis, P.Fallon, A.Gorgen, G.B.Hagemann, D.T.Joss, J.Goon, R.A.Kaye,  
T.L.Khoo, F.G.Kondev, R.W.Laird, K.Lagergren, T.Lauritsen, A.O.Macchiaielli,  
B.McClain, E.F.Moore, G.Mukherjee, E.Ngijoi-Yogo, P.J.Nolan, H.I.Park, A.Pipidis,  
L.L.Riedinger, G.Sletten, S.K.Tandel, P.M.Walker, D.Ward, I.Ragnarsson, F.Saric,  
J.Zhang

**19. Eur.Phys.J. A 25, Supplement 1, 383 (2005)**

*Coulomb excitation and transfer reactions with neutron-rich radioactive beams*

D.C.Radford, C.Baktash, C.J.Barton, J.Batchelder, J.R.Beene, C.R.Bingham,  
M.A.Caprio, **M.Danchev**, B.Fuentes, A.Galindo-Uribarri, J.Gomez del Campo,  
C.J.Gross, M.L.Halbert, D.J.Hartley, P.Hausladen, J.K.Hwang, W.Krolas, Y.Larochelle,  
J.F.Liang, P.E.Mueller, E.Padilla, J.Pavan, A.Piechaczek, D.Shapira, D.W.Stracener,  
R.L.Varner, A.Woehr, C.-H.Yu, N.V.Zamfir

**20. Nucl.Phys. A752, 264c (2005)**

*Coulomb excitation and transfer reactions with rare neutron-rich isotopes*

D.C.Radford, C.Baktash, C.J.Barton, J.Batchelder, J.R.Beene, C.R.Bingham,  
M.A.Caprio, **M.Danchev**, B.Fuentes, A.Galindo-Uribarri, J.Gomez del Campo,  
C.J.Gross, M.L.Halbert, D.J.Hartley, P.Hausladen, J.K.Hwang, W.Krolas, Y.Larochelle,  
J.F.Liang, P.E.Mueller, E.Padilla, J.Pavan, A.Piechaczek, D.Shapira, D.W.Stracener,  
R.L.Varner, A.Woehr, C.-H.Yu, N.V.Zamfir

**21. Phys.Rev. C 72, 064325 (2005)**

*Detailed high-spin spectroscopy and the search for the wobbling mode in  $^{171}\text{Ta}$*

D.J.Hartley, W.H.Mohr, J.R.Vanhoy, M.A.Riley, A.Aguilar, C.Teal, R.V.F.Janssens,  
M.P.Carpenter, A.A.Hecht, T.Lauritsen, E.F.Moore, S.Zhu, F.G.Kondev,  
M.K.Djongolov, **M.Danchev**, L.L.Riedinger, G.B.Hagemann, G.Sletten, P.Chowdhury,  
S.K.Tandel, W.C.Ma, S.W.Odegard

**22. Phys.Lett. B 608, 31 (2005)**

*Wobbling excitations in strongly deformed Hf nuclei?*

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

**23. Nucl.Instrum.Methods Phys.Res. B241, 971 (2005)**

*g-Factor measurements of first  $2^+$  states of heavy Te isotopes based on nuclear spin deorientation for nuclei recoiling in vacuum*

**M.Danchev**, J.Pavan, N.J.Stone, A.E.Stuchbery, C.Baktash, J.Beene, N.Benczer-Koller, C.R.Bingham, J.Dupak, A.Galindo-Uribarri, C.J.Gross, G.Kumbartzki, D.C.Radford, J.R.Stone, C.L.Timlin, C.-H.Yu, N.V.Zamfir

**24. Nucl.Instrum.Methods Phys.Res. B241, 185 (2005)**

*Nuclear structure studies at the proton drip line via proton radioactivity studies*

C.R.Bingham, M.N.Tantawy, J.C.Batchelder, **M.Danchev**, T.N.Ginter, C.J.Gross, D.J.Fong, R.Grzywacz, K.Hagino, J.H.Hamilton, M.Karny, W.Krolas, C.Mazzocchi, A.Piechaczek, A.V.Ramayya, K.Rykaczewski, A.Stolz, J.A.Winger, C.-H.Yu, E.F.Zganjar

**25. Eur.Phys.J. A 25, Supplement 1, 149 (2005)**

*Study of fine structure in the proton radioactivity of  $^{146}Tm$*

J.C.Batchelder, M.Tantawy, C.R.Bingham, **M.Danchev**, D.J.Fong, T.N.Ginter, C.J.Gross, R.Grzywacz, K.Hagino, J.H.Hamilton, M.Karny, W.Krolas, C.Mazzocchi, A.Piechaczek, A.V.Ramayya, K.P.Rykaczewski, A.Stolz, J.A.Winger, C.-H.Yu, E.F.Zganjar

**26. World Year of Physics 2005: Turkish Physical Society 23<sup>rd</sup> International Physics Congress, September 13-16, Mugla University, Mugla, Turkey, Özeti Kitabi, p. 344.( 2005)**

*“Deformation Driving Effects in  $^{191,192}\text{Pt}$  at High Spins”*

Y. Oktem, B. Akkus, D.L. Balabanski, C.W. Beausang, M. Bostan, R.F. Casten, **M. Danchev**, M. Djongolov, M.N. Erduran, S. Erturk, **K.A. Gladnishki**, G. Gürdal, J. Goon, D. J. Hartley, A.A. Hecht, R. Krücken, J.R. Novak, G. Rainovski, L.L. Riedinger, I. Yigitoglu, N.V. Zamfir and O. Zeidan

**27. Bull.Rus.Acad.Sci.Phys. 69, 714 (2005)**

*“Detection of  $\beta$ -delayed two-neutron emission from  $^{238}\text{U}$  photofission fragments”*

Yu.P.Gangrsky, **K.Gladnishki**, V.I.Zhemenik, G.V.Myshinsky, Yu.E.Penionzhkevich, E.A.Sokol

**28. LNL Annual Report, p.18 (2005)**

*“Lifetime measurements in  $^{136}\text{Pm}$ ”*

D. Tonev, Q. Zhong, G. de Angelis, P. Petkov, D. L. Balabanski, L. Atanasova, D. Bazzacco, A. Dewald, F. Della Vedova, E. Farnea, A. Gadea, **K. Gladnishki**, G. Lo Bianco, S. Lenzi, S. Lunardi, N. Marginean, B. Melon, D. Mengoni, R. Menegazzo, D. R. Napoli, M. Nespolo, E. Sahin, A. Saltarelli, J. J. Valiente-Dobon, K. O. Zell

**29. AIP Conference Proceedings Volume 831 FRONTIERS IN NUCLEAR STRUCTURE, ASTROPHYSICS, AND REACTIONS – FINUSTAR Isle of Kos (Greece), 12-17 September p. 114-118 (2005)**

*“Neutron-deficient  $N \sim 126$  nuclei produced in  $^{238}\text{U}$  fragmentation: population of high-spin states”*

Zs. Podolyák, J. Gerl, M. Hellström, F. Becker, **K. A. Gladnishki**, M. Górska, A. Keli , Y. Kopatch, S. Mandal, P. H. Regan, K.-H. Schmidt, P. M. Walker, H. J. Wollersheim, A. Banu, G. Benzoni, H. Boardman, E. Casarejos, J. Ekman, H. Geissel, H. Grawe, D. Hohn, I. Kojouharov, J. Leske, R. Lozeva, M. N. Mineva, G. Neyens, R. D. Page, C. J. Pearson, M. Portillo, D. Rudolph, N. Saito, H. Schaffner, D. Sohler, K. Sümmerer, J. J. Valiente-Dobón, C. Wheldon, H. Weick, and M. Winkler