References for Superdeformed Bands (Theoretical)

67St37 *Shell Effects in Nuclear Masses and Deformation Energies*

V. M. Strutinsky, Nucl. Phys. A95, 420 (1967).

70Ts01 *Shape Isomeric States in Heavy Nuclei*

C. F. Tsang, S. G. Nilsson, Nucl. Phys. A140, 275 (1970).

Nuclear Structure: A=174-256; calculated potential energy surface, two-peaked fission barriers, total potential energy, $T_{1/2}$.

74Co41 *Equilibrium Configurations of Rotating Charged or Gravitating Liquid Masses with Surface Tensor. II.*

S. Cohen, F. Plasil, W. J. Swiatecki, Ann. Phys. (New York) 82, 557 (1974).

Nuclear Reactions: ^{107}Ag(^{20}Ne,X), E(cm)=25-205 MeV; calculated impact parameter. ^{85}Rb(^{20}Ne,X), ^{65}Cu(^{40}Ar, X), ^{48}Ti(^{18}O,X), ^{27}Al(^{16}O, X), ^{12}C(^{12}C,X), E not given; calculated fission barrier, neutron binding energy, excitation energy. ^{105}Ag, ^{66}Zn, ^{43}Sc, ^{24}Mg; deduced possible superdeformation. Rotating liquid masses.

Nuclear Structure: A=1-300; calculated angular momentum where fission barrier would vanish. A=1-200; calculated fission barrier. Rotating liquid masses.

75Be35 *Yrast Bands and High-Spin Potential-Energy Surfaces*

R. Bengtsson, S. E. Larsson, G. Leander, P. Moller, S. G. Nilsson, S. Aberg, Z. Szymanski, Phys. Lett. 57B, 301 (1975).

Nuclear Structure: ^{146}Sm, ^{160}Yb; calculated yrast bands, energy surfaces.

79Bl09 *Alpha Decay Amplification in Superdeformed Nuclei: An Important New Mechanism of Nuclear de-Excitation at High Angular Momenta*

M. Blann, Phys. Lett. 88B, 5 (1979).

Nuclear Reactions: ^{109}Ag(^{40}Ar,α), E=169-337 MeV; calculated transmission coefficients for n, p, α. ^{149}Tb deduced decay probabilities for n, p, α, fission channels, evidence for superdeformation. Statistical model for deformed nuclei.

80Bl04 *Decay of Deformed and Superdeformed Nuclei Formed in Heavy Ion Reactions*

M. Blann, Phys. Rev. C21, 1770 (1980).

Nuclear Reactions: ^{109}Ag(^{40}Ar,X), E=236 MeV; ^{40}Ca(^{16}O, X), E=214 MeV; calculated transmission coefficients for spherical, deformed, superdeformed nuclei. ^{149}Tb, ^{56}Ni deduced fraction of α decay vs spin, α, n, p branching ratios, superdeformation effects. Rotating liquid drop model, Hauser-Feshbach calculation.

80Ra20 *Nilsson-Strutinsky Model of Very High Spin States*

I. Ragnarsson, T. Bengtsson, G. Leander, S. Aberg, Nucl. Phys. A347, 287 (1980).

Nuclear Structure: A=208; ^{212}Rn; ^{152}Dy; ^{118}Te; ^{150}, ^{151}, ^{152}, ^{153}, ^{154}, ^{155}, ^{156}, ^{158}, ^{160}, ^{162}, ^{164}, ^{166}Er; compiled, evaluated yrast spectra, potential energy surfaces, high-spin data, other characteristics.

81Be41 *Some Properties of Superdeformed Nuclei*

T. Bengtsson, M. E. Faber, G. Leander, P. Moller, M. Ploszajczak, I. Ragnarsson, S. Aberg, Phys. Scr. 24, 200 (1981).

Nuclear Structure: ^{152}Dy; calculated potential, shell energy surfaces; ^{90}, ^{92}Zr, ^{96}Ru; calculated potential energy vs deformation; ^{96}Ru; calculated liquid drop model energy. Anisotropic harmonic oscillator potential. A 100; deduced superdeformed properties. A 150; deduced superdeformed properties.

81Fa05 *Shell Structure in Superdeformed Light Nuclei (A < 40) at High Rotational Frequencies*

M. E. Faber, M. Ploszajczak, Phys. Scr. 24, 189 (1981).

Nuclear Structure: ^{24}Mg, ^{26}, ^{27}Al, ^{28}, ^{30}Si; calculated deformation, superdeformation energy surfaces. Cranking Strutinsky model, Saxon-Woods potential.

82Ab01 *High-Spin Potential-Energy Surfaces*

S. Aberg, Phys. Scr. 25, 23 (1982).

Nuclear Structure: A=66-218; calculated high-spin potential energy surfaces. Cranked Nilsson-Strutinsky model.

85Be12 *Study of the Decay Schemes of ^{89}Mo and ^{92}Tc Nuclei*

V. S. Belyavenko, G. P. Borozenets, I. N. Vishnevsky, V. A. Zheltonozhsky, Izv. Akad. Nauk SSSR, Ser. Fiz. 49, 103 (1985)

Radioactivity: ^{89}Mo; ^{92}Tc(β^+), (EC) [from ^{92}, ^{94}, ^{96}Mo(p,xn), E=70 MeV]; measured Eγ, Iγ, $\gamma\gamma$-coin; deduced log ft. ^{92}Mo deduced transition, level energies. ^{89}Nb deduced levels, γ-branching, possible J, π, configuration.

85Du01 *Shape Evolution in the Transitional Gadolinium, Dysprosium, Erbium, and Ytterbium Nuclei*

J. Dudek, W. Nazarewicz, Phys. Rev. C31, 298 (1985).

Nuclear Structure: ^{144}, ^{146}, ^{148}, ^{150}Gd, ^{150}, ^{152}, ^{154}, ^{156}Dy, ^{152}, ^{154}, ^{156}, ^{158}Er, ^{154}, ^{156}, ^{158}, ^{160}Yb; calculated levels; deduced shape evolution at high J. Cranking approximation, generalized Strutinsky method.

86ChZE *High Energy Dipole Bump in the Continuum as a Probe for Super-Deformation*

Y. S. Chen, C. Baktash, Proc. Intern. Nuclear Physics Conference, Harrogate, U. K., p. 49 (1986).

Nuclear Structure: ^{158}Yb; calculated E2, M1 transition strength; deduced superdeformation features. Cranked shell model.

87Ch07 *Superdeformation in the Rare-Earth Region*

R. R. Chasman, Phys. Lett. 187B, 219 (1987).

Nuclear Structure: ^{132}Ce, ^{146}Pm, ^{141}, ^{142}, ^{147}, ^{148}Sm, ^{142}, ^{143}, ^{144}, ^{145}, ^{146}, ^{147}, ^{148}, ^{149}Eu, ^{144}, ^{147}, ^{148}, ^{149}, ^{150}Gd, ^{149}, ^{150}, ^{151}, ^{152}Tb, ^{151}, ^{152}, ^{153}Dy, ^{153}Ho; calculated well depths, deformation, superdeformation parameters, excitation energies, proton, neutron unoccupied levels. Strutinsky method.

87Du02 *Shape Coexistence Effects and Superdeformation in ^{84}Zr*

J. Dudek, W. Nazarewicz, N. Rowley, Phys. Rev. C35, 1489 (1987).

Nuclear Structure: ^{78}, ^{80}, ^{82}, ^{84}, ^{86}Zr; calculated total energy surfaces, Routhians. ^{84}Zr; calculated levels, yrast scheme, band structure; deduced shape coexistences, superdeformation. Woods-Saxon potential, cranking, Hartree-Fock-Bogolyubov method, Strutinsky generalizations, particle number projection.

87Du04 *Abundance and Systematics of Nuclear Superdeformed States; Relation to the pseudospin and pseudo-SU(3) symmetries*

J. Dudek, W. Nazarewicz, Z. Szymanski, G. A. Leander, Phys. Rev. Lett. 59, 1405 (1987).

Nuclear Structure: ^{148}, ^{152}, ^{154}Dy, ^{136}, ^{144}, ^{150}Sm, ^{132}, ^{134}, ^{144}Nd, ^{128}, ^{132}, ^{142}Ce; calculated potential energy surfaces; deduced super elongation particle number dependence, superdeformation effects.

87He23 *Population and Decay of the Superdeformed Rotational Band of ^{152}Dy*

B. Herskind, B. Lauritzen, K. Schiffer, R. A. Broglia, F. Barranco, M. Gallardo, J. Dudek, E. Vigezzi, Phys. Rev. Lett. 59, 2416 (1987).

Nuclear Structure: ^{152}Dy; calculated E1 transition probabilities, superdeformed yrast band.

87Na21 *Pairing Correlations in the Superdeformed Rotational Bands: The frequency-deformation scaling*

W. Nazarewicz, Z. Szymanski, J. Dudek, Phys. Lett. 196B, 404 (1987).

Nuclear Structure: ^{152}Dy; calculated routhians vs deformation parameter, pairing correlation energy, associated dealignment in superdeformed states.

87Sh25 *Role of Static and Dynamic Pairing Correlations in the Superdeformed Band of ^{152}Dy*

Y. R. Shimizu, E. Vigezzi, R. A. Broglia, Phys. Lett. 198B, 33 (1987).

Nuclear Structure: ^{152}Dy; calculated superdeformed configuration kinetic, dynamic moments of inertia, correlation energy; deduced pairing correlations role.

87St08 *Superdeformed States in Rotating ^{152}Dy*

V. M. Strutinsky, Z. Phys. A326, 261 (1987).

Nuclear Structure: ^{152}Dy; analyzed level data; calculated deformation energy; deduced angular momentum minimum, stability against rotation criteria for superdeformation. Liquid drop, Nilsson models.

87Sw01 *Superdeformed Band in ^{152}Dy as Evidence for the Centrifugal Solidification of a Rotating Nucleus*

W. J. Swiatecki, Phys. Rev. Lett. 58, 1184 (1987).

Nuclear Structure: ^{152}Dy; analyzed superdeformed rotational spectrum; deduced centrifugal solidification evidence. Macroscopic model.

88Be22 *The Role of High-N Orbits in Superdeformed States*

T. Bengtsson, I. Ragnarsson, S. Aberg, Phys. Lett. 208B, 39 (1988).

Nuclear Structure: ^{152}Dy, ^{149}Gd, ^{148}Eu, ^{146}Sm; calculated superdeformed quadrupole moment, moment of inertia vs spin.

88Du13 *Pairing, Temperature, and Deformed-Shell Effects on the Properties of Superdeformed ^{152}Dy Nucleus*

J. Dudek, B. Herskind, W. Nazarewicz, Z. Szymanski, T. R. Werner, Phys. Rev. C38, 940 (1988).

Nuclear Structure: ^{152}Dy; calculated barrier heights, potential energy surfaces, high spin behaviour, deformation, superdeformation properties. Strutinsky model.

88Du15 *Prediction of Hyperdeformed Nuclear States at Very High Spins*

J. Dudek, T. Werner, L. L. Riedinger, Phys. Lett. 211B, 252 (1988).

Nuclear Structure: ^{168}Yb; calculated total energy surface; deduced high spin hyperdeformed states evidence. ^{166}, ^{168}, ^{170}, ^{172}, ^{174}Yb; calculated total energy vs elongation.

88Du16 *Dependence of the First Saddle-Point Energy on Temperature and Spin in Superdeformed Rare-Earth Nuclei*

J. Dudek, T. Werner, L. L. Riedinger, Phys. Lett. 213B, 120 (1988).

Nuclear Structure: ^{146}, ^{152}, ^{156}, ^{162}Dy, ^{152}, ^{154}, ^{156}, ^{158}, ^{160}, ^{162}Er, ^{148}, ^{150}, ^{152}, ^{154}, ^{156}, ^{158}Gd, ^{146}, ^{148}, ^{150}, ^{152}, ^{154}, ^{156}Sm; calculated saddle point energy vs temperature, spin, superdeformation.

88FlZW *Microscopic Description of the Ground-State and High-Spin Properties of the Light Strontiums*

H. C. Flocard, Proc. Intern. Workshop Nucl. Struct. of the Zirconium Region, Bad Honnef, Germany, p. 143 (1988).

Nuclear Structure: ^{76}, ^{78}, ^{82}, ^{84}, ^{86}, ^{88}Sr; calculated deformation energy surfaces, rms radii. ^{80}Sr calculated superdeformed band level energies, deformation energy surfaces, rms radii, fission barriers. Constrained Hartree-Fock with Skyrme interactions.

88KiZQ *Moments of Inertia of Superdeformed Nuclei*

S. -I. Kinouchi, T. Kishimoto, Univ. Tsukuba, Tandem Accel. Center, Ann. Rept., 1987, p. 54 (1988); UTTAC-54 (1988).

Nuclear Structure: ^{152}Dy; calculated superdeformed moments of inertia. Microscopic calculation with improved effective interactions.

88No10 *Superdeformed Shapes at High Angular Momentum*

P. J. Nolan, P. J. Twin, Ann. Rev. Nucl. Part. Sci. 38, 533 (1988).

Nuclear Structure: ^{152}Dy, ^{132}Ce; compiled, evaluated superdeformed states data. Other aspects, other nuclei included.

88Sh37 *Superdeformation and Other Phases at Very High Spin*

J. F. Sharpey-Schafer, Nucl. Phys. A488, 127c (1988).

Nuclear Structure: ^{151}, ^{152}Dy, ^{149}, ^{150}Gd, ^{151}Tb, ^{159}, ^{160}Er; analyzed level systematics; deduced superdeformation role.

88Sh47 *Escape Suppressed Spectrometer Arrays: A revolution in γ-ray spectroscopy*

J. F. Sharpey-Schafer, J. Simpson, Prog. Part. Nucl. Phys. 21, 293 (1988).

88Si18 *Nuclear Shapes and Phases at Very High Spin*

J. Simpson, Phys. Scr. T23, 37 (1988).

Nuclear Reactions: ^{114}Cd, ^{108}Pd(^{48}Ca,4n), E=205 MeV; analyzed data. ^{152}Dy, ^{158}Er deduced levels, superdeformed band features.

Nuclear Structure: ^{133}, ^{135}, ^{137}Nd, ^{131}Ce; analyzed data; deduced superdeformed band features.

88TaZU *Intrinsic Structure of the Superdeformed Band in ^{132}Ce*

K. Tanabe, K. Sugawara-Tanabe, Proc. of the Conf. on High-Spin Nuclear Structure and Novel Nuclear Shapes, April 13-15, 1988, Argonne National Laboratory, Argonne, Illinois; ANL-PHY-88-2, p. 53 (1988).

Nuclear Structure: ^{132}Ce; calculated levels, proton, neutron pairing gaps; deduced superdeformation parameters. Cranked HFB.

89Bo24 *Superdeformation and Shape Isomerism at Zero Spin*

P. Bonche, S. J. Krieger, P. Quentin, M. S. Weiss, J. Meyer, M. Meyer, N. Redon, H. Flocard, P. -H. Heenen, Nucl. Phys. A500, 308 (1989).

Nuclear Structure: ^{186}, ^{196}, ^{194}, ^{192}, ^{190}, ^{188}, ^{186}, ^{202}, ^{210}Os, ^{200}, ^{198}, ^{196}, ^{194}, ^{192}, ^{190}, ^{188}, ^{186}Pt, ^{194}, ^{202}, ^{210}, ^{218}Hg; calculated Hartree-Fock energies, energy surfaces. ^{192}, ^{194}, ^{196}, ^{198}, ^{200}, ^{202}, ^{204}, ^{206}, ^{208}, ^{210}, ^{212}, ^{214}, ^{216}, ^{218}Hg; calculated secondary minima deformations. ^{194}, ^{196}, ^{198}Pt; calculated axial deformation energies. ^{66}, ^{68}Ni, ^{190}, ^{192}Pt, ^{206}, ^{208}, ^{210}Os, ^{194}, ^{196}, ^{214}Hg; deduced possible superdeformation effects. Microscopic Hartree-Fock plus BCS.

89Ch06 *Superdeformation Near A = 190*

R. R. Chasman, Phys. Lett. 219B, 227 (1989).

Nuclear Structure: ^{178}W, ^{191}, ^{192}, ^{193}Re, ^{178}, ^{180}, ^{192}, ^{193}, ^{194}Os, ^{191}, ^{192}, ^{193}, ^{194}, ^{195}Ir, ^{190}, ^{191}, ^{192}, ^{193}, ^{194}, ^{195}, ^{196}Pt, ^{190}, ^{191}, ^{192}, ^{193}, ^{194}, ^{195}, ^{196}Au, ^{187}, ^{190}, ^{191}, ^{192}, ^{193}, ^{194}, ^{195}, ^{196}Hg, ^{188}Tl, ^{191}At, ^{192}, ^{203}, ^{204}Rn, ^{193}Fr; calculated level energies; deduced superdeformation features. Cranked Strutinsky method.

89Ch41 *On the Formation of Superdeformed Nuclear States*

Y. Chen, Chin. J. Nucl. Phys. 11, No. 1, 53 (1989).

Nuclear Structure: ^{130}, ^{131}Ce, ^{131}Pr; calculated yrast configuration potential energy surfaces; deduced superdeformation features.

89Na07 *Shape Variations, Influence of Pairing and Alignment of Angular Momentum in Superdeformed Bands in the A 150 Region*

W. Nazarewicz, R. Wyss, A. Johnson, Phys. Lett. 225B, 208 (1989).

Nuclear Structure: ^{152}Dy, ^{150}Gd, ^{151}Tb; calculated levels, equilibrium deformations, dynamical moments of inertia. Deformation-self-consistent pairing average model and variants. ^{152}Dy, ^{150}Gd; deduced superdeformation character.

89Na17 *Structure of Superdeformed Bands in the A 150 Mass Region*

W. Nazarewicz, R. Wyss, A. Johnson, Nucl. Phys. A503, 285 (1989).

Nuclear Structure: ^{144}, ^{149}, ^{150}, ^{148}, ^{146}Gd, ^{150}, ^{152}, ^{153}Dy, ^{150}, ^{151}Tb, ^{153}Ho, ^{148}, ^{143}Eu; calculated levels, rotational band moments of inertia, quadrupole moments. ^{143}, ^{148}Eu, ^{144}, ^{146}, ^{148}, ^{149}Gd, ^{150}, ^{152}, ^{153}Dy, ^{153}Ho, ^{154}Er; analyzed superdeformed moments of inertia. ^{146}Gd; analyzed superdeformed moments of inertia; deduced π. ^{150}Gd; analyzed superdeformed moments of inertia, quardupole moments. ^{150}Tb; analyzed superdeformed moments of inertia; deduced configuration. ^{151}Tb; analyzed superdeformed moments of inertia; deduced π and signature. ^{151}Dy; analyzed superdeformed moments of inertia; deduced possible band crossings. Deformed shell model. Comparison with other data.

89Ok01 *Fission Stability of Superdeformed Nuclei*

J. Okolowicz, J. M. Irvine, J. Phys. (London) G15, 823 (1989).

Nuclear Structure: ^{144}Nd; calculated free energy vs mass quadrupole moment; deduced superdeformation shapes. Constrained Hartree-Fock.

89Sc02 *Lifetimes and Lineshapes in Superdeformed Bands*

K. Schiffer, B. Herskind, J. Gascon, Z. Phys. A332, 17 (1989).

Nuclear Structure: ^{152}Dy; calculated levels, $T_{1/2}$, B(λ), I(γ); deduced normal, superdeformed state mixing. Statistical model, Monte Carlo simulation.

89ShZZ *Semi-Empirical Fits for Superdeformed Band Energies*

Y. Y. Sharon, R. A. Naumann, G. Loring, Bull. Am. Phys. Soc. 34, No. 4, 1169, D6 7 (1989)

Nuclear Structure: A=100-180; analyzed superdeformed band in 11 nuclei. Semi-empirical fits.

90Ab08 *Superdeformations - A Theoretical Overview*

S. Aberg, Nucl. Phys. A520, 35c (1990).

Nuclear Structure: A=66-218; compiled superdeformed state calculations, data analyses.

90Ab13 *Nuclear Shapes in Mean Field Theory*

S. Aberg, H. Flocard, W. Nazarewicz, Ann. Rev. Nucl. Part. Sci. 40, 439 (1990).

Nuclear Structure: ^{188}Os; ^{154}Sm; ^{74}, ^{76}, ^{78}, ^{80}, ^{82}, ^{84}Sr; ^{96}, ^{98}, ^{100}Zr; compiled, evaluated energy surfaces. ^{182}, ^{184}, ^{186}W; compiled, reviewed shape variables related features. ^{158}, ^{160}, ^{162}, ^{164}, ^{166}, ^{168}Yb; compiled, evaluated data. ^{212}Rn; compiled, evaluated spectra. ^{151}, ^{152}, ^{153}Dy, ^{150}, ^{151}Tb, ^{146}, ^{148}, ^{149}, ^{150}Gd; compiled, evaluated superdeformed bands data. ^{180}, ^{182}, ^{184}, ^{186}, ^{188}, ^{190}, ^{192}, ^{194}Hg; analyzed prolate-oblate energy difference. ^{186}, ^{188}, ^{190}, ^{192}, ^{194}, ^{196}, ^{198}, ^{200}, ^{202}, ^{204}, ^{206}Pb; analyzed level data. Other aspects, nuclei discussed.

90Be37 *Level Spin and Moments of Inertia in Superdeformed Nuclei Near A = 194*

J. A. Becker, N. Roy, E. A. Henry, S. W. Yates, A. Kuhnert, J. E. Draper, W. Korten, C. W. Beausang, M. A. Deleplanque, R. M. Diamond, F. S. Stephens, W. H. Kelly, F. Azaiez, J. A. Cizewski, M. J. Brinkman, Nucl. Phys. A520, 187c (1990).

Nuclear Structure: ^{190}, ^{191}, ^{192}, ^{193}, ^{194}Hg, ^{194}, ^{196}Pb, ^{193}, ^{194}Tl; analyzed data; deduced levels, J, superdeformed band parameters. Least-squares fit to rotational formulas.

90BeZK *Spin Determination in Superdeformed ^{192}Hg and ^{194}Hg*

J. A. Becker, N. Roy, E. A. Henry, S. W. Yates, J. E. Draper, C. W. Beausang, M. A. Deleplanque, R. M. Diamond, F. S. Stephens, W. Korten, J. A. Cizewski, M. J. Brinkman, Proc. Inter. Conf. Nuclear Structure of the Nineties, Oak Ridge, Tennessee, Vol. 1, p. 2 (1990).

Nuclear Structure: ^{192}, ^{194}Hg; analyzed data; deduced superdeformed band exit spin.

90Bo40 *Quadrupole Collective Correlations and the Depopulation of the Superdeformed Bands in Mercury*

P. Bonche, J. Dobaczewski, H. Flocard, P. H. Heenen, S. J. Krieger, J. Meyer, M. S. Weiss, Nucl. Phys. A519, 509 (1990).

Nuclear Structure: ^{190}, ^{192}, ^{194}, ^{196}, ^{198}Hg; calculated deformation energy, wave functions, proton quadrupole moments, superdeformed band decay $I\gamma$. Self-consistent generator coordinate method, Hartree-Fock plus BCS wave functions.

90Ch24 *The Effects of Pairing on Superdeformed Rotational Bands Near A = 190*

R. R. Chasman, Phys. Lett. 242B, 317 (1990).

Nuclear Structure: ^{190}, ^{191}, ^{192}, ^{193}, ^{194}Hg, ^{193}, ^{194}Tl; calculated superdeformed level second moments of inertia.

90ChZI *The Criterion for the Observation of the GDR Built on Superdeformed States*

Y. S. Chen, Proc. Inter. Conf. Nuclear Structure of the Nineties, Oak Ridge, Tennessee, Vol. 1, p. 200 (1990).

Nuclear Structure: ^{146}, ^{148}, ^{150}, ^{152}Dy, ^{132}, ^{134}, ^{136}Nd, ^{80}, ^{82}, ^{84}Sr; calculated levels, $\sigma(\gamma,X)$; deduced superdeformed state based GDR excitation criterion. Linear response theory.

90Do05 *The Superdeformed Isotope Chains in the Rare-Earth Region*

B. Dong, Y. Chen, X. Jin, Chin. J. Nucl. Phys. 12, No 1, 1 (1990).

Nuclear Structure: ^{144}, ^{145}, ^{146}, ^{147}, ^{148}, ^{149}, ^{150}, ^{151}, ^{152}Gd, ^{146}, ^{148}, ^{150}, ^{152}, ^{154}Dy; calculated total equipotential energy surfaces; deduced superdeformation features. Cranked Nilsson model.

90DoZY *A Model for the Decay of Superdeformed Bands*

T. Dossing, E. Vigezzi, Proc. Inter. Conf. Nuclear Structure of the Nineties, Oak Ridge, Tennessee, Vol. 1, p. 12 (1990).

Nuclear Structure: ^{152}Dy; calculated superdeformed band decay features.

90Dr08 *Spins in Superdeformed Bands in the Mass 190 Region*

J. E. Draper, F. S. Stephens, M. A. Deleplanque, W. Korten, R. M. Diamond, W. H. Kelly, F. Azaiez, A. O. Macchiavelli, C. W. Beausang, E. C. Rubel, J. A. Becker, N. Roy, E. A. Henry, M. J. Brinkman, A. Kuhnert, S. W. Yates, Phys. Rev. C42, R1791 (1990).

Nuclear Structure: ^{192}, ^{194}Hf, ^{233}U; analyzed superdeformed band structure; deduced level J. Pseudospin formalism.

90Du10 *Prediction of Octupole-Deformation Effects in Superdeformed Nuclei of A 150 and A 190 Mass Regions and Possible Interrelation with Pseudo-Spin Symmetry*

J. Dudek, T. R. Werner, Z. Szymanski, Phys. Lett. 248B, 235 (1990).

Nuclear Structure: ^{146}Nd, ^{148}Sm, ^{150}Gd, ^{152}Dy, ^{154}Er, ^{156}Yb, ^{186}, ^{188}, ^{190}, ^{192}, ^{194}, ^{196}, ^{198}, ^{200}, ^{202}Hg; calculated potential energy vs deformation parameter; deduced pronounced octupole effects, superdeformed nuclei.

90Ge06 *On a Possible Supersymmetry in Superdeformed Bands*

A. Gelberg, P. von Brentano, R. F. Casten, J. Phys. (London) G16, L143 (1990).

Nuclear Structure: ^{152}Dy, ^{151}Tb; analyzed level data; deduced supersymmetry role in superdeformation.

90Ho13 *Octupole Instability of Super- and Hyperdeformed Nuclei*

J. Holler, S. Aberg, Z. Phys. A336, 363 (1990).

Nuclear Structure: ^{152}Dy, ^{190}, ^{194}Hg, ^{200}Rn; calculated potential energy surfaces; deduced possible superdeformation, hyperdeformation. ^{146}Gd, ^{152}Dy, ^{194}, ^{190}Hg, ^{196}Pb, ^{198}Po, ^{200}Rn; calculated octupole softness; deduced possible superdeformation. Cranked Nilsson-Strutinsky model.

90Ja13 *Superdeformation in the Mercury Nuclei*

R. V. F. Janssens, M. P. Carpenter, M. W. Drigert, P. B. Fernandez, E. F. Moore, D. Ye, I. Ahmad, K. B. Beard, I. G. Bearden, Ph. Benet, P. J. Daly, U. Garg, Z. W. Grabowski, T. L. Khoo, W. Reviol, F. L. H. Wolfs, Nucl. Phys. A520, 75c (1990).

Nuclear Structure: ^{194}, ^{196}Pb, ^{193}, ^{194}Tl, ^{189}, ^{190}, ^{191}, ^{192}, ^{193}, ^{194}Hg; compiled, analyzed superdeformed band data.

90Ko12 *A Relativistic Theory of Superdeformations in Rapidly Rotating Nuclei*

W. Koepf, P. Ring, Nucl. Phys. A511, 279 (1990).

Nuclear Structure: ^{152}Dy, ^{80}Sr; calculated superdeformed band structure, quadrupole moments. Cranked relativistic mean field theory.

90Kr10 *Coupling Schemes in Doubly Odd Nuclei and Identical Superdeformed Bands*

A. J. Kreiner, A. O. Macchiavelli, Phys. Rev. C42, R1822 (1990).

Nuclear Structure: ^{150}, ^{148}, ^{146}, ^{147}Gd; analyzed band structure, superdeformation features. Coupling schemes from pseudospin symmetry.

90Mi13 *Octupole Vibrations Built on Superdeformed Rotational Bands*

S. Mizutori, Y. R. Shimizu, K. Matsuyanagi, Prog. Theor. Phys. (Kyoto) 83, 666 (1990).

Nuclear Structure: ^{152}Dy; calculated giant octupole resonance strength functions; deduced resonances built on superdeformed band states. Cranking model based RPA.

90Na08 *Natural-Parity States in Superdeformed Bands and Pseudo SU(3) Symmetry at Extreme Conditions*

W. Nazarewicz, P. J. Twin, P. Fallon, J. D. Garrett, Phys. Rev. Lett. 64, 1654 (1990).

Nuclear Structure: ^{151}Tb, ^{152}Dy, ^{150}Gd; analyzed level schemes, superdeformed bands; deduced pseudo SU(3) symmetry features.

90Ra27 *Transition Energies in Superdeformed Bands. Dependence on Orbital and Deformation*

I. Ragnarsson, Nucl. Phys. A520, 67c (1990).

Nuclear Structure: ^{152}Dy; calculated superdeformed band transition energy differences; deduced orbital, deformation dependence.

90RaZW *Transition Energies in Superdeformed Bands - Dependence on Orbital and Deformation*

I. Ragnarsson, Proc. Inter. Conf. Nuclear Structure of the Nineties, Oak Ridge, Tennessee, Vol. 1, p. 32 (1990).

Nuclear Structure: ^{151}, ^{152}, ^{153}Dy; calculated superdeformed band transition energies. Pure single particle model.

90Sh05 *Effects of Pairing Correlations on Superdeformed Bands in the A 150 Region*

Y. R. Shimizu, E. Vigezzi, R. A. Broglia, Nucl. Phys. A509, 80 (1990).

Nuclear Structure: ^{150}, ^{149}, ^{148}Gd, ^{150}, ^{151}, ^{152}Tb, ^{151}, ^{152}, ^{153}Dy; calculated deformation, superdeformation band structure, moments of interia. Pair correlations, different models.

90Sh07 *Inertias of Superdeformed Bands*

Y. R. Shimizu, E. Vigezzi, R. A. Broglia, Phys. Rev. C41, 1861 (1990).

Nuclear Structure: ^{149}, ^{150}Gd, ^{152}Dy; calculated superdeformed moment of inertia. Self-consistent treatment of nuclear deformation, pairing correlations.

90Sh08 *Quantum Size Effects in Rapidly Rotating Nuclei*

Y. R. Shimizu, R. A. Broglia, Phys. Rev. C41, 1865 (1990).

Nuclear Structure: ^{166}Yb; calculated effective pairing gap. ^{150}Gd; calculated superdeformed band moments of inertia. RPA, strongly rotating nuclei.

90Sh21 *A Comparison of the RPA and Number Projection Approaches for Calculations of Pairing Fluctuations in Fast Rotating Nuclei*

Y. R. Shimizu, R. A. Broglia, Nucl. Phys. A515, 38 (1990).

Nuclear Structure: ^{166}Yb; calculated correlation energy vs rotational frequency, pairing force strength. ^{150}Gd; calculated superdeformed band two moments of inertia. RPA, number projection methods.

90ShZS *Effects of Pairing Correlations on the Depopulation of Superdeformed Bands*

Y. R. Shimizu, E. Vigezzi, T. Dossing, R. A. Broglia, Proc. Inter. Conf. Nuclear Structure of the Nineties, Oak Ridge, Tennessee, Vol. 1, p. 184 (1990).

Nuclear Structure: ^{151}, ^{152}Dy; calculated potential energy surfaces vs spin; deduced pairing correlations role in superdeformed band decay. Cranked HFB plus RPA.

90ShZT *Effects of Particle Correlations on the Moment of Inertia of Superdeformed Bands*

Y. R. Shimizu, E. Vigezzi, R. A. Broglia, Proc. Inter. Conf. Nuclear Structure of the Nineties, Oak Ridge, Tennessee, Vol. 1, p. 182 (1990).

Nuclear Structure: ^{151}, ^{152}, ^{153}Dy, ^{150}, ^{151}, ^{152}Tb, ^{148}, ^{149}, ^{150}Gd; calculated superdeformed band moments of inertia; deduced pairing correlations role. Cranked HFB plus RPA.

90St22 *Spin Alignment in Superdeformed Rotational Bands*

F. S. Stephens, Nucl. Phys. A520, 91c (1990).

Nuclear Structure: A=151-194; calculated incremental, total alignment for bands; deduced pairing vibrations role in superdeformation. Plausibility arguments.

90Su05 *The Nuclear Meissner Effect and Superdeformation in the Number-Projected Constrained-Cranked HFB Approach*

K. Sugawara-Tanabe, K. Tanabe, Phys. Lett. 238B, 15 (1990).

Nuclear Structure: ^{132}Ce; calculated levels, superdeformed band structure. Self-consistent constrained-cranked HFB approach.

90SuZU *Mottelson-Valatin Effect in the Number-Projected Constrained-Cranked HFB Solution and the Superdeformation*

K. Sugawara-Tanabe, K. Tanabe, Proc. Inter. Conf. Nuclear Structure of the Nineties, Oak Ridge, Tennessee, Vol. 1, p. 34 (1990).

Nuclear Structure: ^{132}Ce; calculated levels, alignments; deduced superdeformed band structure. Constrained-cranked HFB, number projection.

90Ta29 *Microscopic Structure of the Superdeformed Rotational Band in ^{132}Ce*

K. Tanabe, K. Sugawara-Tanabe, Prog. Theor. Phys. (Kyoto) 83, 1148 (1990).

Nuclear Structure: ^{132}Ce; calculated levels, average pairing gaps, g, intrinsic quadrupole moments; deduced superdeformed band structure. Self-consistent cranked HFB.

90TaZY *Microscopic Structure of the Superdeformed Bands in A = 130 Region*

K. Tanabe, K. Sugawara-Tanabe, Proc. Inter. Conf. Nuclear Structure of the Nineties, Oak Ridge, Tennessee, Vol. 1, p. 36 (1990).

Nuclear Structure: ^{132}Ce, ^{136}, ^{134}Nd; calculated levels, alignments; deduced superdeformed band structure. Angular momentum constrained HFB.

90Tw02 *Superdeformation - An Experimental Overview*

P. J. Twin, Nucl. Phys. A520, 17c (1990).

Compilation: A=152; compiled, reviewed data on superdeformation.

90Vi06 *A Model for the Decay Out of Superdeformed Bands*

E. Vigezzi, R. A. Broglia, T. Dossing, Nucl. Phys. A520, 179c (1990).

Nuclear Structure: ^{146}, ^{149}Gd, ^{150}, ^{151}Tb, ^{151}, ^{152}Dy; analyzed rotational, superdeformed band decay features. Admixture considerations.

90Vi08 *The Decay Out of Superdeformed Rotational Bands*

E. Vigezzi, R. A. Broglia, T. Dossing, Phys. Lett. 249B, 163 (1990).

Nuclear Structure: ^{146}, ^{149}, ^{150}Gd, ^{150}, ^{151}Tb, ^{151}, ^{152}Dy; analyzed superdeformed states decay data; deduced superdeformed, normal states barrier transmission coefficient. Statistical model.

90Za05 *Variable Volume Parameters for the Radii and Kinetic Energies of Superdeformed States*

L. Zamick, E. Moya de Guerra, J. Caballero, D. Berdichevsky, D. C. Zheng, Phys. Lett. 242B, 7 (1990).

Nuclear Structure: ^{40}Ca; calculated level kinetic energy, radii differences, superdeformation. Hartree-Fock calculations, Skyrme interactions.

90Zh05 *Superdeformed Many-Particle - Many-Hole States in N = Z Nuclei: Beyond the 8p-8h state in ^{40}Ca*

D. C. Zheng, L. Zamick, D. Berdichevsky, Phys. Rev. C42, 1004 (1990).

Nuclear Structure: ^{40}Ca, ^{44}Ti, ^{48}Cr, ^{52}Fe, ^{56}Ni; calculated multi-particle, multi-hole bands, shapes; deduced possible superdeformation. Fixed configuration, deformed Hartree-Fock.

91Am03 *Supersymmetric Quantum Mechanics and Superdeformed Nuclei*

R. D. Amado, R. Bijker, F. Cannata, J. P. Dedonder, Phys. Rev. Lett. 67, 2777 (1991).

Nuclear Structure: A=146-198; deduced supersymmetry role in superdeformation.

91Be48 *Very Elongated Nuclei Near A = 194*

J. A. Becker, E. A. Henry, S. W. Yates, T. F. Wang, A. Kuhnert, M. J. Brinkman, J. A. Cizewski, M. A. Deleplanque, R. M. Diamond, F. S. Stephens, F. Azaiez, W. Korten, J. E. Draper, Nucl. Instrum. Methods Phys. Res. B56/57, 500 (1991)

Nuclear Structure: A=194; ^{192}, ^{194}Hg; compiled, reviewed data; deduced new superdeformation region.

91Bo07 *Cranked Hartree-Fock Study of the Yrast Line of ^{80}Sr*

P. Bonche, H. Flocard, P. -H. Heenen, Nucl. Phys. A523, 300 (1991).

Nuclear Structure: ^{80}Sr; calculated levels, quadrupole moments, superdeformed bands. Cranked Hartree-Fock.

91Bo11 *Description of Superdeformed Bands by the Quantum Algebra SU(q)(2)*

D. Bonatsos, S. B. Drenska, P. P. Raychev, R. P. Roussev, Yu. F. Smirnov, J. Phys. (London) G17, L67 (1991).

Nuclear Structure: ^{134}, ^{136}Nd, ^{150}Gd, ^{162}, ^{152}Dy, ^{192}, ^{194}Hg, ^{174}Yb, ^{248}Cm; analyzed level data; deduced superdeformed band features. Quantum SU(q)(2) algebra.

91Bo19 *Octupole Softness of Superdeformed ^{194}Pb*

P. Bonche, S. J. Krieger, M. S. Weiss, J. Dobaczewski, H. Flocard, P. -H. Heenen, Phys. Rev. Lett. 66, 876 (1991).

Nuclear Structure: ^{194}Pb; analyzed data; deduced band structure, superdeformed softness features. Generator coordinate method, pairing projection.

91Ch01 *Giant Dipole Resonance Built on Superdeformed Rotational States*

Y. S. Chen, Phys. Rev. C43, 173 (1991).

Nuclear Structure: ^{146}, ^{148}, ^{150}, ^{152}Dy, ^{132}, ^{134}, ^{136}Nd, ^{80}Sr, ^{82}Sr, ^{84}Sr; calculated superdeformed states based GDR, γ-anisotropy following decay. Linear response theory, superdeformed mean field, self-consistent approach.

Nuclear Reactions: ^{150}Dy, ^{134}Nd, ^{82}Sr(γ,X), E $\leq$ 20 MeV; calculated total absorption σ(E). Linear response theory, superdeformed mean field, self-consistent approach.

91Ch36 *Superdeformed and Hyperdeformed Banana Shaped Nuclides Near A = 190*

R. R. Chasman, Phys. Lett. 266B, 243 (1991).

Nuclear Structure: ^{190}Pt, ^{189}, ^{190}, ^{191}, ^{192}Au, ^{188}, ^{189}, ^{190}, ^{191}, ^{192}, ^{193}, ^{194}, ^{195}Hg, ^{189}, ^{190}, ^{191}, ^{192}, ^{193}, ^{194}, ^{195}Tl, ^{190}, ^{191}, ^{192}, ^{193}Pb, ^{193}, ^{194}, ^{195}, ^{196}Bi, ^{194}Po; calculated level energy relative to prolate mininum, barrier heights, reflection symmetric shapes; deduced superdeformed, hyperdeformed minima, deformation features.

91Cu01 *Cullen et al. Reply:*

D. M. Cullen, M. A. Riley, A. Alderson, I. Ali, C. W. Beausang, T. Bengtsson, M. A. Bentley, P. Fallon, P. D. Forsyth, F. Hanna, S. M. Mullins, W. Nazarewicz, R. J. Poynter, P. H. Regan, J. W. Roberts, W. Satula, J. F. Sharpey-Schafer, J. Simpson, G. Sletten, P. J. Twin, R. Wadsworth, R. Wyss, Phys. Rev. Lett. 67, 1175 (1991).

Nuclear Structure: ^{193}Hg; analyzed data; deduced superdeformed states features.

91Gu03 *Stability of the Superdeformed Z = 38 Shell Against Exotic Cluster Decays: Reinforcing and switching of shell gaps in nuclei*

R. K. Gupta, W. Scheid, W. Greiner, J. Phys. (London) G17, 1731 (1991).

Nuclear Structure: ^{78}Sr, ^{80}Zr; calculated cluster-decay $T_{1/2}$; deduced superdeformed Z=38 stability against exotic decay. Cluster ^{16}O-^{40}Ca nuclei.

91Ia02 *Physics of High-Spin States in the Interacting Boson Model*

F. Iachello, Nucl. Phys. A522, 83c (1991).

Nuclear Structure: ^{192}Hg; analyzed data; deduced superdeformed band features. Other nuclei discussed. Interacting boson model.

91Ja14 *Superdeformed Nuclei*

R. V. F. Janssens, T. L. Khoo, Ann. Rev. Nucl. Part. Sci. 41, 321 (1991).

Nuclear Structure: ^{189}, ^{190}, ^{191}, ^{192}, ^{193}, ^{194}Hg, ^{193}, ^{194}Tl, ^{194}, ^{196}Pb, ^{151}, ^{152}, ^{153}Dy, ^{150}, ^{151}Tb, ^{146}, ^{147}, ^{148}, ^{149}, ^{150}Gd; compiled, evaluated superdeformed bands moment of inertia. Other aspects discussed.

91Ji05 *Symmetries of the Nuclear Average Field Hamiltonian and a Search for Possible Exotic Equilibrium Deformations in Superdeformed Nuclei*

X. Ji, J. Dudek, P. Romain, Phys. Lett. 271B, 281 (1991).

Nuclear Structure: Z=54-78; N=86-122; calculated proton, neutron shell energies vs deformation. ^{158}Hf; calculated total energy surface vs deformations, superdeformed configurations. Nuclear average field hamiltonian.

91Ko18 *The Spin-Orbit Field in Superdeformed Nuclei: A relativistic investigation*

W. Koepf, P. Ring, Z. Phys. A339, 81 (1991).

Nuclear Structure: ^{208}Pb, ^{16}O; calculated nucleon single particle levels. ^{152}Dy; calculated potential parameters; analyzed superdeformation. Relativistic mean field theory.

91Me07 *Pairing Vibrations and Stability of Superdeformed States*

J. Meyer, P. Bonche, J. Dobaczewski, H. Flocard, P. H. Heenen, Nucl. Phys. A533, 307 (1991).

Nuclear Structure: ^{194}Hg; calculated levels, quadrupole moments; deduced pairing vibrations role in superdeformed state stability.

91Mi07 *Octupole Vibrations with K = 1 and 2 in Superconducting, Superdeformed Nuclei*

S. Mizutori, Y. R. Shimizu, K. Matsuyanagi, Prog. Theor. Phys. (Kyoto) 85, 559 (1991).

Nuclear Structure: ^{192}Hg, ^{144}Gd; calculated octupole strength functions, superdeformed nuclei. RPA.

91Ot02 *Interacting Boson Model for Superdeformation*

T. Otsuka, M. Honma, Phys. Lett. 268B, 305 (1991).

Nuclear Structure: ^{194}Hg; calculated neutron, proton occupation probabilities, Iγ, levels; deduced possible superdeformed β, γ bands features, boson charge, interaction strength. Super interacting boson model.

91Ra20 *Additivity in Superdeformed Bands*

I. Ragnarsson, Phys. Lett. 264B, 5 (1991).

Nuclear Structure: ^{146}, ^{147}, ^{148}Gd; analyzed superdeformed bands transition energies; deduced stability, two-orbitals role.

91Sa12 *Structure of Superdeformed States in Au-Ra Nuclei*

W. Satula, S. Cwiok, W. Nazarewicz, R. Wyss, A. Johnson, Nucl. Phys. A529, 289 (1991).

Nuclear Structure: ^{190}, ^{192}, ^{194}, ^{196}Hg, ^{192}, ^{194}, ^{196}, ^{198}Pb, ^{194}, ^{196}, ^{198}, ^{200}, ^{202}Po, ^{198}, ^{200}, ^{202}, ^{204}, ^{206}Rn, ^{204}, ^{206}, ^{208}, ^{210}, ^{212}Ra; calculated superdeformed state energies, equilibrium deformations, band head energies, barrier heights, potential energy surfaces. ^{189}, ^{191}, ^{193}, ^{195}, ^{190}, ^{192}, ^{194}, ^{196}Tl, ^{187}, ^{189}, ^{191}, ^{193}, ^{195}Au; calculated equilibrium deformations. Strutinsky shell correction method.

91Sc09 *The Population of the Superdeformed Continuum*

K. Schiffer, B. Herskind, Phys. Lett. 255B, 508 (1991).

Nuclear Structure: ^{152}Dy; analyzed superdeformed level data; deduced continuum features.

91St05 *Stephens et al. Reply:*

F. S. Stephens, M. A. Deleplanque, W. Korten, R. M. Diamond, F. Azaiez, A. O. Macchiavelli, J. A. Becker, E. A. Henry, A. Kuhnert, J. E. Draper, J. A. Cizewski, M. J. Brinkman, Phys. Rev. Lett. 66, 1378 (1991).

Nuclear Structure: ^{192}, ^{194}Hg; analyzed superdeformed band data, spin assignments.

91Ta14 *Microscopic Properties of the Superdeformed Rotational States in Light Rare-Earth Nuclei ^{132}Ce and ^{134}, ^{136}Nd*

K. Tanabe, K. Sugawara-Tanabe, Phys. Lett. 259B, 12 (1991).

Nuclear Structure: ^{132}Ce, ^{134}, ^{136}Nd; calculated levels, g-factors, yrast sequence electric quadrupole moment, dynamical moments of inertia; deduced superdeformed to yrast transition. Particle number, angular momentum constrained HFB.

91Tw01 *Superdeformed Nuclei at High Spin*

P. J. Twin, Nucl. Phys. A522, 13c (1991).

Nuclear Structure: ^{152}Dy, ^{151}Tb, ^{150}Gd, ^{152}Eu; analyzed data; deduced superdeformed band evidence. Other data reviewed.

91Wa24 *Comment on ' Landau-Zener Crossing in Superdeformed ^{193}Hg: Evidence for octupole correlations in superdeformed nuclei '*

P. M. Walker, Phys. Rev. Lett. 67, 1174 (1991).

Nuclear Structure: ^{193}Hg; analyzed data; deduced octupole correlations role in superdeformed states.

91We12 *Superdeformation in the Quasicontinuum: Microscopic view of the excited superdeformed bands and the corresponding level densities*

T. R. Werner, J. Dudek, Phys. Rev. C44, R948 (1991).

Nuclear Structure: ^{152}Dy, ^{149}Gd; calculated rotational, superdeformed bands. Microscopic approach, Woods-Saxon potential, extended Strutinsky method.

91Wu01 *Superdeformations and Fermion Dynamical Symmetries*

C. -L. Wu, Nucl. Phys. A522, 31c (1991).

Nuclear Structure: ^{150}Gd, ^{194}Hg; calculated levels, band features, decay characteristics, superdeformation effects. Other nuclei discussed. Fermion dynamical symmetry model.

91Wu04 *Comment on ' Spin Alignment in Superdeformed Hg Nuclei '*

C. -L. Wu, D. H. Feng, M. W. Guidry, Phys. Rev. Lett. 66, 1377 (1991).

Nuclear Structure: ^{192}, ^{194}Hg; analyzed superdeformed band data; deduced spin alignment features.

91Wy01 *Integer Alignment and Strong Coupling Limit in Superdeformed Nuclei*

R. Wyss, S. Pilotte, Phys. Rev. C44, R602 (1991).

Nuclear Structure: ^{191}, ^{192}, ^{193}, ^{194}Hg; analyzed levels, superdeformed band spin, alignment data; deduced strong coupling limit role.

91Ze01 *Spin Determination and Quantized Alignment in the Superdeformed Bands in ^{152}Dy, ^{151}Tb, and ^{150}Gd*

J. Y. Zeng, J. Meng, C. S. Wu, E. G. Zhao, Z. Xing, X. Q. Chen, Phys. Rev. C44, R1745 (1991).

Nuclear Structure: ^{152}Dy, ^{151}Tb, ^{150}Gd; analyzed data. ^{152}Dy deduced superdeformed band lowest level J. ^{152}Dy, ^{151}Tb, ^{150}Gd deduced superdeformed band quantized alignment.

91Zh23 *An Excited Superdeformed band of ^{80}Zr in Skyrme Hartree-Fock Calculations*

D. C. Zheng, L. Zamick, Phys. Lett. 266, 5 (1991).

Nuclear Structure: ^{80}Zr; calculated levels; deduced superdeformed band features. Skyrme Hartree-Fock approach.

92Ba42 *Low-Spin Identical Bands in Neighboring Odd-A and Even-Even Nuclei: A possible challenge to mean-field theories*

C. Baktash, J. D. Garrett, D. F. Winchell, A. Smith, Phys. Rev. Lett. 69, 1500 (1992).

Nuclear Structure: ^{157}, ^{161}, ^{163}Ho, ^{159}, ^{161}, ^{163}, ^{167}, ^{169}Tm, ^{163}, ^{165}, ^{167}, ^{169}, ^{171}, ^{173}, ^{175}, ^{177}Lu, ^{171}, ^{173}, ^{175}, ^{177}, ^{179}, ^{181}Ta, ^{177}, ^{181}, ^{183}, ^{185}Re, ^{175}, ^{177}, ^{185}Ir; analyzed band structure; deduced identical bands at deformations between normal, superdeformed values.

92Be25 *Level Spin for Superdeformed Nuclei Near A = 194*

J. A. Becker, E. A. Henry, A. Kuhnert, T. F. Wang, S. W. Yates, R. M. Diamond, F. S. Stephens, J. E. Draper, W. Korten, M. A. Deleplanque, A. O. Macchiavelli, F. Azaiez, W. H. Kelly, J. A. Cizewski, M. J. Brinkman, Phys. Rev. C46, 889 (1992).

Nuclear Structure: ^{189}, ^{190}, ^{191}, ^{192}, ^{193}, ^{194}Hg, ^{192}, ^{194}, ^{196}, ^{198}Pb, ^{193}, ^{194}, ^{195}Tl; analyzed superdeformed band transition Eγ; deduced J, π. Power series expansion approach.

92Ch20 *The Fermion Dynamic Symmetry Model and Superdeformation Near A = 220*

R. R. Chasman, Phys. Lett. 280B, 187 (1992).

Nuclear Structure: ^{222}, ^{223}, ^{224}Fr, ^{222}, ^{223}, ^{224}, ^{225}Ra, ^{222}, ^{223}, ^{224}, ^{225}, ^{226}Ac, ^{223}, ^{224}, ^{225}, ^{226}, ^{227}Th, ^{223}, ^{224}, ^{225}, ^{226}, ^{227}, ^{228}Pa, ^{224}, ^{225}, ^{226}, ^{227}, ^{228}, ^{229}U; calculated well depths, quadrupole, hexadecapole deformation, level energies, static moments of inertia; deduced oblate superdeformed minima, prolate superdeformation features. Fermion dynamic symmetry model.

92Ch32 *Observation of Identical Bands in Superdeformed Nuclei with the Cranked Hartree-Fock Method*

B. -Q. Chen, P. -H. Heenen, P. Bonche, M. S. Weiss, H. Flocard, Phys. Rev. C46, R1582 (1992).

Nuclear Structure: ^{194}, ^{192}Hg, ^{194}Pb; calculated superdeformed band level energies, quadrupole moments, dynamical, rigid moments of inertia; deduced twinning characteristics. Cranked Hartree-Fock, Skyrme effective interaction.

92CiZZ *Identical Bands and Quantized Alignment in Superdeformed A = 194 Nuclei: Evidence for a new kind of rotor*

J. A. Cizewski, J. A. Becker, E. A. Henry, M. J. Brinkman, T. F. Wang, A. Kuhnert, F. S. Stephens, M. A. Deleplanque, R. M. Diamond, F. Azaiez, A. O. Macchiavelli, J. E. Draper, Contrib. Int. Conf. Nuclear Structure at High Angular Momentum, Ottawa, p. 68 (1992); AECL-10613 (1992)

Nuclear Structure: A=194; analyzed data; deduced superdeformed, identical band features. Spin-rotor framework.

92Cl06 *On the DSAM and Lifetime Measurements for Superdeformed States*

R. Clark, N. Rowley, J. Phys. (London) G18, 1515 (1992).

Nuclear Structure: ^{152}Dy, ^{133}Nd; analyzed DSA, $T_{1/2}$ data procedures; deduced improved results possibility with inverse reactions; calculated superdeformed bands quadrupole moments. Bateman equations equivalent formalism.

92Cs03 *On the Relation between Cluster and Superdeformed States of Light Nuclei*

J. Cseh, W. Scheid, J. Phys. (London) G18, 1419 (1992).

Nuclear Structure: ^{12}C, ^{16}O, ^{20}Ne, ^{24}Mg, ^{28}Si, ^{32}S, ^{36}Ar, ^{40}Ca, ^{44}Ti; analyzed levels; deduced superdeformed states clusterization features.

92DeZW *Microscopic Description of Superdeformed Bands in ^{190}, ^{192}, ^{194}Hg and ^{152}Dy*

J. P. Delaroche, M. Girod, J. F. Berger, J. Libert, Contrib. Int. Conf. Nuclear Structure at High Angular Momentum, Ottawa, p. 77 (1992); AECL-10613 (1992)

Nuclear Structure: ^{190}, ^{192}, ^{194}Hg, ^{152}Dy; calculated potential energy surfaces, inertia tensors; deduced band structure, superdeformed band characteristics. Constrained HFB, Gogny force.

92Du10 *Nuclear Superdeformation at High Spins*

J. Dudek, Prog. Part. Nucl. Phys. 28, 131 (1992).

92Fa02 *The Influence of Pairing on the Properties of ' Identical ' Superdeformed Bands in Hg Nuclei*

P. Fallon, W. Nazarewicz, M. A. Riley, R. Wyss, Phys. Lett. 276B, 427 (1992).

Nuclear Structure: ^{190}, ^{191}, ^{192}, ^{193}, ^{194}Hg; analyzed band structure data; deduced good reference for superdeformed bands, neutron pairing relative magnitude.

92FaZY *Differences in ' Identical ' Superdeformed Bands*

P. Fallon, W. Nazarewicz, M. A. Riley, R. Wyss, Contrib. Int. Conf. Nuclear Structure at High Angular Momentum, Ottawa, p. 74 (1992); AECL-10613 (1992)

Nuclear Structure: ^{194}Hg; analyzed superdeformed band low spin state transition energies; deduced low spin deviations qualitative picture. Blocking arguments.

92Gi01 *Ab Initio Calculation of Superdeformed Bands in ^{192}Hg*

M. Girod, J. P. Delaroche, J. Libert, I. Deloncle, Phys. Rev. C45, R1420 (1992).

Nuclear Structure: ^{192}Hg; calculated levels, kinematic moment of inertia, B(λ); deduced superdeformed bands. Griffin-Hill-Wheeler equation, Gaussian overlap approximation, constrained Hartree-Fock-Bogoliubov calculation based potential, tensor of inertia, Gogny's force.

92Ha32 *Magnetic Dipole Strength in Superdeformed Nuclei*

I. Hamamoto, W. Nazarewicz, Phys. Lett. 297B, 25 (1992).

Nuclear Structure: ^{192}Hg, ^{152}Dy; calculated B(M1), superdeformed nuclei; deduced isovector GQR, scissors mode overlap.

92Ha35 *Nuclear Superdeformation Data Tables*

X. -L. Han, C. -L. Wu, At. Data Nucl. Data Tables 52, 43 (1992).

Compilation: A=130, 150, 190; compiled Iγ for transitions in superdeformed bands.

92HaZT *Recent Results and Future Prospects Along the N = Z Line with Radioactive Nuclear Beams and RMS*

J. H. Hamilton, A. V. Ramayya, Contrib. 6th Intern. Conf. on Nuclei Far from Stability + 9th Intern. Conf. on Atomic Masses and Fundamental Constants, Bernkastel-Kues, Germany, PE10 (1992)

Nuclear Structure: ^{72}, ^{74}, ^{76}Kr; reviewed, analyzed data. ^{88}Ru; analyzed band structure; deduced low spin superdeformation. Nuclei along N=Z line.

92Kr07 *Super-Deformation and Shape Isomerism: Mapping the isthmus*

S. J. Krieger, P. Bonche, M. S. Weiss, J. Meyer, H. Flocard, P. -H. Heenen, Nucl. Phys. A542, 43 (1992).

Nuclear Structure: Z=108-152; calculated excitation energy, rigid moment of inertia. ^{190}, ^{192}, ^{194}, ^{196}, ^{198}, ^{200}, ^{202}, ^{204}, ^{206}, ^{210}, ^{212}, ^{214}, ^{216}, ^{218}, ^{220}, ^{222}, ^{224}, ^{226}, ^{228}, ^{230}Pb calculated rigid moment of inertia, quadrupole moment, superdeformed isomers; deduced shape isomerism isthmus superdeformation region. Microscopic Hartree-Fock-BCS formalism.

92Me01 *Superdeformed Single-Particle Orbitals in the A = 190 Region from Hartree-Fock Plus BCS Calculations*

M. Meyer, N. Redon, P. Quentin, J. Libert, Phys. Rev. C45, 233 (1992).

Nuclear Structure: ^{192}, ^{194}, ^{196}, ^{198}, ^{200}Pb, ^{194}, ^{192}, ^{190}Hg; calculated superdeformed nucleon state components, spectra; deduced particle number symmetry restoration role. Self-consistent axial Hartree-Fock plus BCS.

92Na03 *Dynamical Symmetries, Multiclustering, and Octupole Susceptibility in Superdeformed and Hyperdeformed Nuclei*

W. Nazarewicz, J. Dobaczewski, Phys. Rev. Lett. 68, 154 (1992).

Nuclear Structure: A=66-230; calculated minimum shell correction energy; deduced new superdeformation and hyperdeformation classification schemes.

92Na12 *Quadrupole Splitting of Octupole Vibrational States*

R. Nazmitdinov, S. Aberg, Phys. Lett. 289B, 238 (1992).

Nuclear Structure: A=150; calculated giant octupole, dipole, quadrupole resonance K-component splittings; deduced analytical RPA solutions at spherical, superdeformed, hyperdeformed shells.

92Na15 *Octupole Vibrations in the Harmonic-Oscillator-Potential Model with Axis Ratio Two to One*

T. Nakatsukasa, S. Mizutori, K. Matsuyanagi, Prog. Theor. Phys. (Kyoto) 87, 607 (1992).

Nuclear Structure: Z=80; N=80; calculated RPA octupole transition strength functions; deduced open shell superdeformed configurations octupole vibrations evidence. Harmonic osillator potential model, axis ratio two to one, RPA solutions.

92NaZZ *Couplings between Octupole-Vibrational and Quasiparticle Modes of Excitation in Rotating, Superconducting, Superdeformed Nuclei*

T. Nakatsukasa, S. Mizutori, K. -I. Arita, Y. R. Shimizu, K. Matsuyanagi, Contrib. Int. Conf. Nuclear Structure at High Angular Momentum, Ottawa, p. 87 (1992); AECL-10613 (1992)

Nuclear Structure: ^{193}Hg; calculated intraband coupling effects, superdeformed states. Microscopic particle-vibration couplings.

92NaZS *New Vistas in Superdeformation*

W. Nazarewicz, Proc. Int. Conf. Nuclear Structure at High Angular Momentum, Ottawa, p. 32 (1992); AECL-10613 (1992)

Nuclear Structure: ^{170}, ^{180}, ^{190}, ^{200}Hg; analyzed total potential energies. ^{166}, ^{168}, ^{170}, ^{172}, ^{174}, ^{176}, ^{178}, ^{180}, ^{182}, ^{184}, ^{186}, ^{188}, ^{190}, ^{192}, ^{194}, ^{196}, ^{198}, ^{200}Hg; analyzed shape-coexisting states energies; deduced superdeformation related features. Other nuclei discussed.

92Pa22 *On a Possible Origin of Identical Superdeformed and Normally Deformed Bands and Absence of Polarization in Interacting Boson-Fermion Mdel*

V. Paar, D. K. Sunko, D. Vretenar, J. Phys. (London) G18, L191 (1992).

92PaZW *Highly-Deformed Bands in the Mass 130 Region*

E. S. Paul, Proc. Int. Conf. Future Directions in Nuclear Physics with 4π Gamma Detection Systems of the New Generation, Strasbourg, France (1991), J. Dudek, B. Haas, Eds., American Institute of Physics, New York, p. 165 (1992).

Compilation: ^{133}, ^{135}, ^{137}Sm, ^{139}Gd, ^{142}Eu, ^{133}, ^{134}, ^{135}, ^{136}, ^{137}Nd, ^{134}Pr, ^{131}, ^{132}, ^{133}, ^{136}Ce, ^{130}La; compiled, reviewed superdeformed, intruder bands, $T_{1/2}$ data; deduced dominant configuration.

92Ra06 *Hyperdeformed States in ^{36}Ar and ^{48}Cr in the Cranked Cluster Model*

W. D. M. Rae, A. C. Merchant, Phys. Lett. 279B, 207 (1992).

Nuclear Structure: ^{36}Ar, ^{48}Cr; calculated hyperdeformed states α-particle constituents, single particle density contours; deduced possible evidence from reaction data. Cranked cluster model.

92RaZV *Assignment of Nilsson Orbitals at Superdeformation - Identical Bands*

I. Ragnarsson, Proc. Int. Conf. Nuclear Structure at High Angular Momentum, Ottawa, p. 187 (1992); AECL-10613 (1992)

Nuclear Structure: ^{146}, ^{147}, ^{148}, ^{149}Gd; analyzed superdeformed bands data; deduced effective alignments direct imaging of Nilsson orbitals, other features.

92Se01

P. B. Semmes, I. Ragnarsson, S. Aberg, Phys. Rev. Lett. 68, 460 (1992).

Nuclear Structure: ^{193}, ^{194}Hg; calculated transition Iγ in superdeformed bands. ^{193}Hg deduced internal conversion dominated M1 cross talk evidence.

92Sh04 *Superfluid Tunneling in Superdeformed Nuclei*

Y. R. Shimizu, F. Barranco, R. A. Broglia, T. Dossing, E. Vigezzi, Phys. Lett. 274B, 253 (1992).

Nuclear Structure: ^{152}Dy; calculated potential energy vs adiabatic path. ^{149}, ^{150}Gd, ^{150}, ^{151}Tb, ^{151}, ^{152}Dy; calculated invariant adiabatic action vs angular momentum, superdeformed band decay related parameter. Superfluid tunneling model.

92Sh34 *The Spectroscopy of Superdeformed Bands*

J. F. Sharpey-Schafer, Prog. Part. Nucl. Phys. 28, 187 (1992).

Nuclear Structure: ^{191}, ^{192}, ^{193}, ^{194}Hg, ^{151}, ^{152}, ^{153}Dy, ^{150}, ^{151}Tb, ^{146}, ^{147}, ^{148}, ^{149}, ^{150}Gd; compiled, evaluated superdeformed structure data. Other aspects discussed.

92ShZX *On the Mechanism of Decay Out of Superdeformed Bands*

Y. R. Shimizu, T. Dossing, E. Vigezzi, R. A. Broglia, Contrib. Int. Conf. Nuclear Structure at High Angular Momentum, Ottawa, p. 70 (1992); AECL-10613 (1992)

Nuclear Structure: A=150, 190; analyzed superdeformed decay characteristics; deduced possible mechanism plausibility.

92Sk01 *Octupole Correlations at Superdeformed Shape in the Hg-Pb Region - Including Nonaxial Components*

J. Skalski, Phys. Lett. 274B, 1 (1992).

Nuclear Structure: ^{192}, ^{194}Hg, ^{192}, ^{194}, ^{196}, ^{198}Pb; calculated routhian stiffness vs octupole deformation components; deduced octupole vibration frequencies at superdeformed minima.

92So10 *Intrinsic Structures and Associated Rotational Bands in Deformed Even-Even Nuclei of the Actinide Region*

P. C. Sood, D. M. Headly, R. K. Sheline, At. Data Nucl. Data Tables 51, 273 (1992).

Nuclear Structure: $Z \geq 88$; $N \geq 134$; ^{230}, ^{232}, ^{234}, ^{236}, ^{238}U, ^{220}, ^{222}, ^{224}, ^{226}, ^{228}, ^{230}, ^{232}, ^{234}Th, ^{218}, ^{220}, ^{222}, ^{224}, ^{226}, ^{228}, ^{230}Ra; analyzed levels; deduced band structure, fission isomers superdeformation, hyperdeformation evidence.

92TaZX *The Anisotropy Coefficient of Gamma-Rays from Thermal High-Spin Giant-Dipole-Resonances*

K. Tanabe, K. Sugawara-Tanabe, Contrib. Int. Conf. Nuclear Structure at High Angular Momentum, Ottawa, p. 94 (1992); AECL-10613 (1992)

Nuclear Structure: ^{132}Ce; calculated γ-ray anisotropy coefficients, $\sigma(\gamma,X)$; deduced behavior for superdeformed states. Thermal RPA, GDR, high spin.

92TaZY *The Thermal Energy-Weighted Sum Rule for Giant-Dipole-Resonances in Hot Nuclei*

K. Tanabe, K. Sugawara-Tanabe, Contrib. Int. Conf. Nuclear Structure at High Angular Momentum, Ottawa, p. 93 (1992); AECL-10613 (1992)

Nuclear Structure: ^{132}Ce; calculated GDR resonance thermal energy-weighted sum rule; deduced $\gamma(\theta)$ asymmetry behavior for superdeformed band. Thermal RPA.

92Th01 *Nuclear Dissipation and the Feeding of Superdeformed Bands*

M. Thoennessen, J. R. Beene, Phys. Rev. C45, 873 (1992).

Nuclear Reactions: ^{159}Tb(^{16}O,X), E=160 MeV; calculated fusion, fission, evaporation residue σ vs spin, high energy γ-spectra; deduced dissipation role, enhanced superdeformed band feeding features. Statistical model.

92WaZW *Topological Excitations and Identical Superdeformed Bands*

J. C. Waddington, R. K. Bhaduri, Contrib. Int. Conf. Nuclear Structure at High Angular Momentum, Ottawa, p. 80 (1992); AECL-10613 (1992)

Nuclear Structure: ^{192}Hg; analyzed identical superdeformed band feautres; deduced vortices role. Topological excitations, ^{152}Dy core.

92Wu01 *Spin Determination and Calculation of Nuclear Superdeformed Bands in A 190 Region*

C. S. Wu, J. Y. Zeng, Z. Xing, X. Q. Chen, J. Meng, Phys. Rev. C45, 261 (1992).

Nuclear Structure: ^{190}, ^{191}, ^{192}, ^{193}, ^{194}Hg, ^{193}, ^{194}Tl, ^{194}, ^{196}Pb; calculated superdeformed bands, transition energies. Two-parameter approach.

92Wu05 *Relation between the Kinematic and Dynamic Moments of Inertia in Superdeformed Nuclei*

C. S. Wu, L. Cheng, C. Z. Lin, J. Y. Zeng, Phys. Rev. C45, 2507 (1992).

Nuclear Structure: ^{164}, ^{166}Er, ^{168}, ^{170}, ^{172}, ^{174}, ^{176}Yb, ^{170}, ^{172}, ^{174}, ^{176}, ^{178}Hf, ^{238}U, ^{242}Pu, ^{248}Cm; analyzed ground state bands data. ^{191}, ^{192}, ^{193}, ^{194}Hg, ^{193}, ^{194}Tl, ^{194}, ^{196}Pb, ^{151}, ^{152}Dy, ^{150}Tb, ^{150}Gd; analyzed superdeformed band level data; deduced R-parameter remains independent of spin.

92Wu06 *Is There Objective Evidence for Quantized Spin Alignment in Superdeformed Nuclei (Question)*

C. -L. Wu, D. H. Feng, M. Guidry, Phys. Rev. C46, 1339 (1992).

Nuclear Structure: ^{192}, ^{191}, ^{193}, ^{194}Hg, ^{194}Pb, ^{194}Tl; analyzed superdeformed band γ-transition energy analyses for spin determination; deduced quantized spin alignment related characteristics.

93Ar16 *Octupole Instability of the Closed-Shell Configurations in the Superdeformed Oscillator Potential*

K. -I. Arita, K. Matsuyanagi, Prog. Theor. Phys. (Kyoto) 89, 389 (1993).

Nuclear Structure: A=40-160; calculated shell structure energy vs particle number, octupole deformation parameter; deduced octupole instability, superdeformed shape connection. Closed shell configurations, axially-symmetric harmonic oscillator potential.

93Ab08 *Superdeformed Nuclei*

S. Aberg, Nucl. Phys. A557, 17c (1993).

Nuclear Structure: ^{146}, ^{150}Gd, ^{151}Tb, ^{152}Dy, ^{188}, ^{190}, ^{191}, ^{192}, ^{193}, ^{194}Hg; compiled, reviewed superdeformed band related data. ^{146}Gd deduced hyperdeformation evidence. Other nuclei included.

93Ba17 *On the Question of Spin Fitting and Quantized Alignment in Rotational Bands*

C. Baktash, W. Nazarewicz, R. Wyss, Nucl. Phys. A555, 375 (1993).

Nuclear Structure: ^{76}, ^{78}Kr; analyzed level energy rms deviation vs spin. ^{150}Gd, ^{151}, ^{152}Dy, ^{151}Tb, ^{192}, ^{194}Hg; analyzed superdeformed states data, level energy rms deviation vs spin. ^{180}Pt, ^{175}Ir, ^{175}Re, ^{177}Pt, ^{183}Os, ^{235}U, ^{172}, ^{166}Yb, ^{166}Lu, ^{174}, ^{178}Hf, ^{180}, ^{182}Os, ^{186}Hg; calculated superdeformed, rotational bands. Harris expansion formula.

93Ba36 *High-Spin States and Superdeformation in the Proton-Neutron Interacting Boson Model*

A. F. Barfield, B. R. Barrett, Nucl. Phys. A557, 551c (1993).

Nuclear Structure: ^{192}Hg, ^{232}U; calculated levels, moment of inertia for bands. ^{192}Hg deduced possible new superdeformed band candidate. Neutron-proton interacting boson model.

93Ch43 *Calculation of Nuclear Superdeformed Bands by Using the Particle-Rotor Model*

X. Q. Chen, Z. Xing, J. Phys. (London) G19, 1869 (1993).

Nuclear Structure: ^{193}, ^{195}Tl; calculated superdeformed bands kinematic, dynamic moments of inertia, B(λ), dynamical quadrupole moments. Particle-rotor model.

93Ch47 *Configuration Interaction Effects in Rotational Bands of Superdeformed Nuclei*

R. R. Chasman, Phys. Lett. 319B, 41 (1993).

Nuclear Structure: ^{192}Hg; calculated superdeformed band neutron, proton pairing, transition energies. Cranking Hamiltonian with pairing.

93Fl04 *Hartree-Fock and Hartree-Fock-Bogoliubov Calculations of Superdeformed Bands*

H. Flocard, B. Q. Chen, B. Gall, P. Bonche, J. Dobaczewski, P. H. Heenen, M. S. Weiss, Nucl. Phys. A557, 559c (1993).

Nuclear Structure: ^{192}, ^{194}Hg, ^{194}Pb; calculated superdeformed bands quadrupole moments, dynamical, rigid body moments of inertia. Hartree-Fock, HFB calculations, limitations discussed.

93Gu08 *Some General Constraints on Identical Band Symmetries*

M. W. Guidry, M. R. Strayer, C. -L. Wu, D. H. Feng, Phys. Rev. C48, 1739 (1993).

Nuclear Structure: ^{192}, ^{194}, ^{196}Hg, ^{234}, ^{236}, ^{238}U, ^{238}, ^{240}, ^{242}, ^{244}Pu, ^{246}, ^{248}Cm, ^{248}, ^{250}Cf; analyzed band structure; deduced normal, superdeformed identical bands related features.

93Ho17 *E2 Contribution to the Decay Out of a Superdeformed Band*

M. Honma, T. Otsuka, Phys. Lett. 314B, 1 (1993).

Nuclear Structure: ^{199}Hg; calculated superdeformed band B(λ), Iγ; deduced superdeformed band sudden termination reason. Nilsson+particle number conserving BCS model.

93Hu06 *Spin Determination of Superdeformed Bands, A - 190 and A - 150 Regions*

J. Hu, C. Zheng, Chin. J. Nucl. Phys. 15, No 1, 45 (1993).

Nuclear Structure: ^{190}, ^{191}, ^{192}, ^{193}, ^{194}Hg, ^{193}, ^{194}Tl, ^{194}, ^{196}, ^{198}Pb, ^{146}, ^{147}, ^{148}, ^{149}, ^{150}Gd, ^{150}, ^{151}Tb, ^{151}, ^{152}, ^{153}Dy; analyzed level spectra, Eγ; deduced superdeformed band states spin. Different methods.

93Kh06 *Feeding and Decay of Superdeformed States*

T. L. Khoo, T. Lauritsen, I. Ahmad, M. P. Carpenter, P. B. Fernandez, R. V. F. Janssens, E. F. Moore, F. L. H. Wolfs, Ph. Benet, P. J. Daly, K. B. Beard, U. Garg, D. Ye, M. W. Drigert, Nucl. Phys. A557, 83c (1993).

Nuclear Structure: ^{192}Hg; analyzed superdeformed band feeding, decay data; deduced mechanisms.

93Ko41 *Identical Bands in Superdeformed Nuclei: A relativistic description*

J. Konig, P. Ring, Phys. Rev. Lett. 71, 3079 (1993).

Nuclear Structure: ^{152}Dy, ^{151}Tb; calculated binding energy, mass quadrupole moment, static, rigid body moment of inertia, transitional energy differences for superdeformed band. Relativistic mean field theory, rotating frame.

93Li09 *Microscopic Description of Superdeformed Bands in ^{190}, ^{192}, ^{194}Hg*

J. Libert, J. F. Berger, J. P. Delaroche, M. Girod, Nucl. Phys. A553, 523c (1993).

Nuclear Structure: ^{190}, ^{192}, ^{194}Hg; calculated levels, normal, superdeformation bands. Microscopic model.

93Lu08 *On the Fits to the Superdeformed Bands*

W. Luo, Y. Chen, Chin. J. Nucl. Phys. 15, No 1, 50 (1993).

Nuclear Structure: ^{146}, ^{147}, ^{148}, ^{149}, ^{150}Gd, ^{150}, ^{151}Tb, ^{151}, ^{152}, ^{153}Dy; analyzed level spectra, Eγ; deduced superdeformed band states spin. Different methods.

93Mi10 *Octupole Correlations in Superdeformed High-Spin States*

S. Mizutori, T. Nakatsukasa, K. Arita, Y. R. Shimizu, K. Matsuyanagi, Nucl. Phys. A557, 125c (1993).

Nuclear Structure: ^{158}, ^{156}, ^{154}, ^{152}, ^{150}, ^{148}, ^{146}, ^{144}, ^{142}Gd, ^{184}, ^{186}, ^{188}, ^{190}, ^{192}, ^{194}, ^{196}, ^{198}, ^{200}Hg; calculated curvature against octupole deformation, stretched octupole strengths; deduced octupole instability, superdeformed shape relationship.

93Na16 *Effects of Octupole Vibrations on Quasiparticle Modes of Excitation in Superdeformed ^{193}Hg*

T. Nakatsukasa, S. Mizutori, K. Matsuyanagi, Prog. Theor. Phys. (Kyoto) 89, 847 (1993).

Nuclear Structure: ^{192}Hg; calculated superdeformed states octupole transitions strength distribution. ^{193}Hg; calculated superdeformed rotational bands. Cranked shell model, RPA based particle-vibration coupling.

93No04 *Superdeformation and High Spin States*

P. J. Nolan, Nucl. Phys. A553, 107c (1993).

Nuclear Structure: A=130-140; A 150; A 190; compiled, reviewed superdeformation, other data features.

93Pa05 *E0 Transitions and the Depopulation of SD Bands*

M. Palacz, Z. Sujkowski, J. Bacelar, A. Atac, B. Herskind, J. Nyberg, M. Piiparinen, G. de Angelis, S. Forbes, N. Gjorup, G. Hagemann, F. Ingebretsen, H. Jensen, D. Jerrestam, H. Kusakari, R. Lieder, G. M. Marti, S. Mullins, D. Santonocito, H. Schnare, G. Sletten, K. Strahle, M. Sugawara, P. O. Tjom, A. Virtanen, R. Wadsworth, Acta Phys. Pol. B24, 399 (1993).

Nuclear Structure: ^{132}Ce, ^{143}Eu, ^{152}Dy, ^{192}Hg; calculated transition probability vs excitation energy for superdeformed states. ^{143}Eu; analyzed γ(K X-ray)-coin following superdeformed states decay.

93Pa10 *Shapes of Exotic Nuclei in the Mass A = 70 Region*

S. K. Patra, C. R. Praharaj, Phys. Rev. C47, 2978 (1993).

Nuclear Structure: ^{64}Ge, ^{68}Se, ^{72}Kr, ^{76}Sr, ^{80}Zr; calculated ground state deformation parameters. ^{76}Se; calculated occupation probability vs neutron single particle energies for normal deformation, superdeformation. Deformed relativistic mean field theory.

93Pa25 *Shapes of N = Z Nuclei in the Mass A = 20-48 Region*

S. K. Patra, C. R. Praharaj, Nucl. Phys. A565, 442 (1993).

Nuclear Structure: ^{20}Ne, ^{24}Mg, ^{28}Si, ^{32}S, ^{36}Ar, ^{40}Ca, ^{44}Ti, ^{48}Cr; calculated binding energy, rms matter radius, quadrupole deformation parameter, hexadecupole moment. ^{20}Ne, ^{32}S, ^{36}Ar deduced hyperdeformed states. Axially symmetric deformed relativistic mean field theory.

93Pi03 *Model of Superfluid Liquid with Triplet Pairing, Cranking Model and Model of Variable Moment of Inertia in Superdeformed Bands in A 190 Region*

R. Piepenbring, K. V. Protasov, Z. Phys. A345, 7 (1993).

Nuclear Structure: ^{189}, ^{190}, ^{191}, ^{193}, ^{194}Hg, ^{194}, ^{196}Pb, ^{193}, ^{194}Tl; calculated superdeformed band states transition energies; deduced spin assignments. Triplet pairing model.

93Pi13 *Superfluid Liquid Model with Triplet Pairing for Superdeformed Bands in A 130-150 Region*

R. Piepenbring, K. V. Protasov, Z. Phys. A347, 27 (1993).

Nuclear Structure: ^{151}, ^{153}, ^{152}Dy, ^{131}, ^{132}Ce, ^{146}, ^{147}, ^{148}, ^{149}, ^{150}Gd, ^{136}, ^{137}Nd, ^{130}La, ^{142}Sm, ^{150}, ^{151}Tb, ^{143}Eu; calculated superdeformed band level energies, transition Eγ. Superfluid liquid model, triplet pairing.

93Pr01 *Rotational Spectra of Nuclei: Equivalence of a superfluid liquid model, the cranking model and a model with a variable moment of inertia*

K. V. Protasov, R. Piepenbring, J. Phys. (London) G19, 597 (1993).

Nuclear Structure: ^{194}Tl; calculated superdeformed band transition energies; deduced model equivalences. Superfluid liquid, cranking, variable moment of inertia models.

93Ra07 *Orbital and Spin Assignment of SD Bands in the Dy/ Gd Region - Identical Bands*

I. Ragnarsson, Nucl. Phys. A557, 167c (1993).

Nuclear Structure: ^{146}, ^{147}, ^{148}, ^{149}, ^{150}Gd, ^{151}Tb, ^{151}, ^{152}, ^{153}Dy; analyzed superdeformed band transition Iγ, other data; deduced J, π assignments.

93Ro04 *Hyperdeformation in ^{152}Dy at Very High Spins*

G. Royer, F. Haddad, Phys. Rev. C47, 1302 (1993).

Nuclear Structure: ^{152}Dy; calculated macroscopic, rotational energies, rigid moment of inertia, electric quadrupole moment vs deformation. ^{58}Ni; calculated macroscopic, rotational energies vs deformation. ^{152}Dy deduced hyperdeformed states evidence. Rotational liquid drop model.

93Sh18 *Tunneling Probability for Decays Out of Superdeformed Bands*

Y. R. Shimizu, E. Vigezzi, T. Dossing, R. A. Broglia, Nucl. Phys. A557, 99c (1993).

Nuclear Structure: ^{151}, ^{152}Dy, ^{192}Hg; ^{143}Eu, ^{146}, ^{147}, ^{148}, ^{149}, ^{150}Gd, ^{150}, ^{151}Tb; analyzed data; deduced tunneling probability for decays out of superdeformed bands.

93Sk01 *Octupole Correlations in Superdeformed Mercury and Lead Nuclei: A generator-coordinate method analysis*

J. Skalski, P. -H. Heenen, P. Bonche, H. Flocard, J. Meyer, Nucl. Phys. A551, 109 (1993).

Nuclear Structure: ^{194}Pb, ^{194}, ^{192}Hg; calculated axial, nonaxial octupole level energies built on superdeformed states, B(λ); deduced weak coupling. Generator coordinate method, self-consistent Hartree-Fock BCS basis.

93Su10 *The Angular Distribution of Gamma-Rays from Thermal High-Spin Giant-Dipole-Resonances on Superdeformed States*

K. Sugawara-Tanabe, K. Tanabe, Nucl. Phys. A559, 42 (1993).

Nuclear Structure: ^{132}Ce; calculated levels, transition $\gamma(\theta)$, absorption $\sigma(E\gamma)$, thermal high spin GDR, superdeformed states. Microscopic approach, thermal RPA, thermal cranked HFB ensemble.

93Su14 *Quantization of Alignment and Different Parity Pair Levels with Omega = 1/2*

K. Sugawara-Tanabe, A. Arima, Nucl. Phys. A557, 157c (1993).

Nuclear Structure: ^{192}Hg, ^{152}Dy; calculated l-s operator matrix element for parity doublet levels; deduced degeneracy features at superdeformation.

93Su23 *Parity Doublet Levels in Superdeformation*

K. Sugawara-Tanabe, A. Arima, Phys. Lett. 317B, 1 (1993).

Nuclear Structure: ^{192}Hg, ^{152}Dy; calculated parity-doublet levels; deduced degeneracy features at Fermi surface in superdeformed shape.

93Wu06 *Nuclear Superdeformation and the Supershell Fermion Dynamical Symmetry Model*

C. -L. Wu, D. H. Feng, M. W. Guidry, Ann. Phys. (New York) 222, 187 (1993).

Nuclear Structure: Z=60-110; N=60-150; calculated regions favorable for superdeformation. Other aspects related to superdeformation discussed. Supershell fermion dynamical symmetry model.

93Zh21 *Comment on ' Evidence for Superdeformed Shape Isomeric States in ^{28}Si at Excitations Above 40 MeV Through Observations of Selective Particle Decays of ^{16}O + ^{12}C Resonances in ^{8}Be and Alpha Channels '*

J. Zhang, A. C. Merchant, W. D. M. Rae, Phys. Rev. C48, 2117 (1993).

Nuclear Reactions: ^{12}C(^{16}O,^{8}Be), (^{16}O,α), E(cm)=25.7-38.6 MeV; analyzed previous data analyses. ^{28}Si deduced superdeformed shape isomeric states structure.

94Ab17 *Clustering Aspects of Nuclei with Octupole and Superdeformation*

S. Aberg, L. -O. Jonsson, Z. Phys. A349, 205 (1994).

Nuclear Structure: A=4-149; N=20-140; compiled, reviewed clustering aspects; deduced superdeformation, dimolecules, hyperdeformation related features.

94Am16 *Quartets of Superdeformed Bands and Supersymmetry Breaking*

R. D. Amado, R. Bijker, F. Cannata, J. P. Dedonder, N. R. Walet, Int. J. Mod. Phys. E3, 171 (1994).

Nuclear Structure: ^{152}Dy, ^{151}Tb, ^{150}, ^{146}, ^{147}, ^{148}Gd, ^{192}, ^{193}, ^{194}Hg; analyzed superdeformed bands, associated properties; deduced supersymmetry breaking related features.

94Ba07 *A U(qp)(u2) Model for Rotational Bands of Nuclei*

R. Barbier, J. Meyer, M. Kibler, J. Phys. (London) G20, L13 (1994).

Nuclear Structure: ^{192}, ^{194}Hg, ^{192}, ^{194}, ^{196}, ^{198}Pb; calculated γ transition energies, rotating superdeformed nuclei. Two-parameter quantum algebra based rotational model.

94Be20 *Large Amplitude Collective Motion*

G. F. Bertsch, Nucl. Phys. A574, 169c (1994).

Nuclear Structure: ^{124}Xe, ^{182}Os, ^{218}Ra, ^{143}Eu, ^{194}Hg; compiled, reviewed data, collective motion analyses, superdeformation features in some cases; deduced hopping model suitability features.

94Bo24 *Microscopic Approach to Collective Motion*

P. Bonche, E. Chabanat, B. Q. Chen, J. Dobaczewski, H. Flocard, B. Gall, P. H. Heenen, J. Meyer, N. Tajima, M. S. Weiss, Nucl. Phys. A574, 185c (1994).

Nuclear Structure: ^{192}Hg, ^{194}Pb; calculated superdeformed bands, energies, quadrupole moments, dynamical, rigid body moments of inertia, Eγ. ^{194}, ^{196}, ^{198}, ^{200}, ^{202}, ^{204}, ^{206}, ^{208}, ^{210}, ^{212}, ^{214}, ^{216}, ^{218}, ^{220}Pb; calculated proton, neutron rms radii. Microscopic approach, collective motion.

94Ch33 *Some Features of Superdeformed Bands Built Upon $j_{15/2}$ Orbitals*

X. -Q. Chen, X. Zheng, J. Phys. (London) G20, 1041 (1994).

Nuclear Structure: ^{191}Hg; calculated Eγ, kinematic, dynamic moments of inertia for superdeformed bands. Particle-rotor model.

94Ch52 *Configuration Assignment of Superdeformed Bands in Odd-A Hg Nuclei*

X. Chen, Z. Xing, Chin. J. Nucl. Phys. 16, No 2, 133 (1994).

Nuclear Structure: ^{193}, ^{191}, ^{189}Hg; calculated superdeformed band B(λ). Particle-rotor model.

94Ch60 *Analysis of Superdeformed Band of ^{193}Tl*

X. Chen, Z. Xing, Chin. J. Nucl. Phys. 16, No 1, 50 (1994).

Nuclear Structure: ^{193}Tl; calculated superdeformed bands dynamic moment of inertia vs energy gap, triaxial deformation parameters. Particle-rotor model.

94Ch73 *Calculations of Superdeformed Bands in ($j15/2^-$)-Model*

X. -Q. Chen, Z. Xing, Chin. J. Nucl. Phys. 16, No 3, 233 (1994).

Nuclear Structure: ^{191}Hg; calculated superdeformed band transitions $E\gamma$, $B(\lambda)$, kinematic, dynamic moments of inertia. Particle-rotor model.

94Cw01 *Hyperdeformations and Clustering in the Actinide Nuclei*

S. Cwiok, W. Nazarewicz, J. X. Saladin, W. Plociennik, A. Johnson, Phys. Lett. 322B, 304 (1994).

Nuclear Structure: ^{220}, ^{222}Ra, ^{232}Th, ^{234}U; calculated Woods-Saxon-Strutinsky total potential energy vs deformation parameters β_2, β_3; deduced hyperdeformed minima features. Shell correction approach.

94Ga22 *Superdeformed Rotational Bands in the Mercury Region. A Cranked Skyrme-Hartree-Fock-Bogoliubov Study*

B. Gall, P. Bonche, J. Dobaczewski, H. Flocard, P. -H. Heenen, Z. Phys. A348, 183 (1994).

Nuclear Structure: ^{190}, ^{192}, ^{194}Hg, ^{194}Pb; calculated superdeformed bands moment of inertia, proton, neutron pairing energies, charge quadrupole moments versus angular velocity. Cranked Skyrme-Hartree-Fock-Bogoliubov method.

94Gi05 *Self-Consistent Cranking Hartree-Fock-Bogoliubov Description of Superdeformed Rotational States in ^{194}Hg with the Gogny Force*

M. Girod, J. P. Delaroche, J. F. Berger, J. Libert, Phys. Lett. 325B, 1 (1994).

Nuclear Structure: ^{194}Hg; calculated yrast superdeformed band dynamic moment of inertia. Self-consistent cranking HFB calculations, Gogny force.

94Ha13 *$K(\pi) = 1^+$ Pairing Interaction and Moments of Inertia of Superdeformed Rotational Bands in Atomic Nuclei*

I. Hamamoto, W. Nazarewicz, Phys. Rev. C49, 2489 (1994).

Nuclear Structure: ^{194}Hg; calculated Migdal to cranking moment of inertia ratio; deduced $K(\pi)=1^+$ pairing role on moments of inertia frequency dependence at superdeformed shapes.

94Kr06 *GCM Calculation of the E2 Decay Lifetimes of Shape Isomers*

S. J. Krieger, P. Bonche, H. Flocard, P. H. Heenen, M. S. Weiss, Nucl. Phys. A572, 384 (1994).

Nuclear Structure: ^{230}, ^{232}Th, ^{238}U; calculated deformation energy vs mass quadrupole moment, first barrier, second minimum, absolute miminum quadrupole moment, charge quadrupole transition matrix element between superdeformed, ground bands, isomer E2 decay $T_{1/2}$. Hartree-Fock BCS calculations.

94Li67 *New Microscopic View of Nuclear Deformation*

Z. -P. Li, M. W. Guidry, C. -L. Wu, D. H. Feng, Int. J. Mod. Phys. E3, 1119 (1994).

Nuclear Structure: N=60-150; analyzed B(E2) systematics, calculations; N=82-126; calculated energy surface primary, secondary minima deformation vs particle number in Sm isotopes, superdeformation discussed. Fermi dynamical symmetry model.

94Me06 *Calculations of Particle Decay Widths of Hyper-Deformed Nuclei using Prolate Spheroidal Coordinates*

A. C. Merchant, W. D. M. Rae, Nucl. Phys. A571, 43 (1994).

Nuclear Structure: ^{24}Mg, ^{48}Cr; calculated α-decay widths, hyperdeformed nuclei. Prolate spheroidal coordinates, coupled-channels calculations.

94Sa35 *The Lipkin-Nogami Formalism for the Cranked Mean Field*

W. Satula, R. Wyss, P. Magierski, Nucl. Phys. A578, 45 (1994).

Nuclear Structure: ^{152}Dy, ^{144}Gd, ^{194}Hg; calculated moment of inertia, yrast superdeformed bands. Cranked mean field, Lipkin-Nogami formalism, lattice calculations.

94Sa41 *Coherence of Nucleonic Motion in Superdeformed Nuclei: Towards an understanding of identical bands*

W. Satula, R. Wyss, Phys. Rev. C50, 2888 (1994).

Nuclear Structure: ^{190}, ^{192}, ^{194}, ^{196}Hg, ^{192}, ^{194}, ^{196}, ^{198}Pb; calculated superdeformed bands dynamical moments of inertia. Cranked Strutinsky-Lipkin-Nogami approach, self-consistent treatment of deformation, pairing effects.

94Sk02 *Octupole-Induced Dipole Moments of Very Deformed Nuclei*

J. Skalski, Phys. Rev. C49, 2011 (1994).

Nuclear Structure: ^{224}Ra, ^{192}Hg; calculated dipole moments vs β_2, β_3 deformation. ^{190}, ^{192}, ^{194}Hg, ^{192}, ^{194}, ^{196}Pb; calculated intrinsic dipole moments at superdeformed shape vs β_3 deformation. Shell correction method.

94Tw01 *Extreme Deformations at High Spin*

P. J. Twin, Nucl. Phys. A574, 51c (1994).

Nuclear Structure: ^{151}, ^{152}, ^{153}Dy, ^{149}, ^{150}Gd, ^{151}, ^{150}Tb; compiled, reviewed moment of inertia vs average rotational frequency, other features. Other nuclei, aspects included, extreme deformations at high spins.

94Tw02 *Superdeformed Nuclei*

P. J. Twin, Nuovo Cim. 107A, 1145 (1994).

Nuclear Structure: A=150-189; compiled, reviewed data on superdeformed levels, systematics.

94Xu03 *Cranking Bohr-Mottelson Hamiltonian Applied to Superdeformed Bands in A 190 Region*

F. Xu, J. Hu, Phys. Rev. C49, 1449 (1994).

Nuclear Structure: ^{189}, ^{191}, ^{192}Hg; A 160; analyzed superdeformed bands data. Cranking Bohr-Mottelson Hamiltonian.

94Zh01 *Superdeformed and Hyperdeformed States in ^{56}Ni*

J. Zhang, A. C. Merchant, W. D. M. Rae, Phys. Rev. C49, 562 (1994).

Nuclear Structure: ^{56}Ni; calculated superdeformed, hyperdeformed states features. Alpha-cluster model.

94Zh40 *Level Spin Assignment of Superdeformed Bands for A 190 Region*

C. Zhou, T. Liu, Chin. J. Nucl. Phys. 16, No 1, 85 (1994).

Nuclear Structure: ^{189}, ^{190}, ^{191}, ^{192}, ^{193}, ^{194}Hg, ^{193}, ^{194}, ^{195}Tl, ^{192}, ^{194}, ^{196}, ^{198}Pb; analyzed superdeformed bands data; deduced J assignment in some cases.

95Ba10 *Decay of Superdeformed Structures Studied with GASP*

D. Bazzacco, Nucl. Phys. A583, 191c (1995).

Nuclear Structure: ^{133}Nd, ^{194}Pb; analyzed high-spin level data, γ-branching ratios, B(λ); deduced band mixing role in superdeformed bands decay. GASP array.

95Bb02 *A U(qp)(u_2) Rotor Model for Rotational Bands of Superdeformed Nuclei*

R. Barbier, J. Meyer, M. Kibler, Int. J. Mod. Phys. E4, 385 (1995).

Nuclear Structure: ^{130}La, ^{132}Ce, ^{134}, ^{136}Nd, ^{146}, ^{148}, ^{150}Gd, ^{152}Dy, ^{190}, ^{192}, ^{194}Hg, ^{192}, ^{194}, ^{196}, ^{198}Pb, ^{194}Tl; analyzed superdeformed band associated transitions Eγ, Iγ. Nonrigid rotor model based on two-parameter U(qp)(u_2) quantum algebra.

95Bb19 *Identical Bands in Deformed and Superdeformed Nuclei*

C. Baktash, B. Haas, W. Nazarewicz, Ann. Rev. Nucl. Part. Sci. 45, 485 (1995).

95Ca07 *Highly Deformed Nuclear Shapes: Recent results from experiment and theory*

M. P. Carpenter, R. V. F. Janssens, Nucl. Phys. A583, 183c (1995).

Nuclear Structure: ^{194}, ^{192}Hg; ^{152}Dy; analyzed level data; deduced high-spin superdeformed, identical bands related features. Other nuclei included.

95Ch76 *Analysis of Identical Superdeformed Bands*

X. -Q. Chen, X. Zheng, Chin. J. Nucl. Phys. 17, No 1, 40 (1995).

Nuclear Structure: ^{191}Au, ^{191}Hg; calculated kinematic, dynamic moments of inertia, Eγ, superdeformed bands. Particle-rotor model, BCS pairing correlation.

95Ci05 *Spin-Rotor Interpretation of Identical Bands and Quantized Alignment in Superdeformed A 190 Nuclei*

J. A. Cizewski, R. Bijker, J. A. Becker, M. J. Brinkman, E. A. Henry, F. S. Stephens, M. A. Deleplanque, R. M. Diamond, Phys. Rev. C52, 1307 (1995).

Nuclear Structure: ^{191}, ^{192}, ^{193}, ^{194}Hg, ^{193}, ^{194}Tl, ^{194}Pb; analyzed identical bands, superdeformed nuclei; calculated level spectra, γ- transition energies. Pseudo-SU(3) symmetries, supersymmetries.

95Do22 *Time-Odd Components in the Mean Field of Rotating Superdeformed Nuclei*

J. Dobaczewski, J. Dudek, Phys. Rev. C52, 1827 (1995); Erratum Phys. Rev. C55, 3177 (1997).

Nuclear Structure: ^{152}Dy, ^{151}Tb, ^{150}Gd; calculated proton quadrupole moments, dynamical moment of inertia, yrast, superdeformed bands. Hartree-Fock cranking approach, rotation induced time-odd components in mean field.

95Do26 *Effects of Pair Correlations in Statistical γ-Decay Spectra*

T. Dossing, T. L. Khoo, T. Lauritsen, I. Ahmad, D. Blumenthal, M. P. Carpenter, B. Crowell, D. Gassmann, R. G. Henry, R. V. F. Janssens, D. Nisius, Phys. Rev. Lett. 75, 1276 (1995).

Nuclear Structure: ^{192}, ^{194}, ^{191}Hg; analyzed superdeformed band statistical γ-decay data features; deduced pairing correlation energy related features. Other nuclei included.

95Ha30 *Neutron Skin of Nuclei Near the Neutron Drip Line*

I. Hamamoto, X. Z. Zhang, Phys. Rev. C52, R2326 (1995).

Nuclear Structure: ^{152}Dy; analyzed Hartree-Fock minima density distribution at superdeformed shape. A=152; A=178; A=208; calculated one-neutron levels vs N=78-110, 94-126, 118-142 respectively; deduced neutron skin related features. Skyrme type deformed Hartree-Fock calculations.

95Ha36 *ΔI = 4 Structure in Superdeformed Rotational Band - Deformation with C(4v)*

I. Hamamoto, B. Mottelson, Phys. Scr. T56, 27 (1995).

Nuclear Structure: A=120; A=100; A=90; analyzed yrast quartet splittings for C(4v) Hamiltonian, other aspects, superdeformed bands; deduced ΔI=4 structure related features, model parameters characteristics.

95He12 *Microscopic Study of Superdeformation in ^{193}Hg*

P. -H. Heenen, P. Bonche, H. Flocard, Nucl. Phys. A588, 490 (1995).

Nuclear Structure: ^{193}Hg; calculated superdeformed bands dynamical moment of inertia. Cranked HFB method.

95KhZZ *The Identical Rotational Bands of the Superdeformed Nuclear States and Triplet Nuclear Matter*

V. A. Khangulyan, I. S. Shapiro, Program and Thesis, Proc. 45th Ann. Conf. Nucl. Spectrosc. Struct. At. Nuclei, St. Petersburg, p. 115 (1995).

Nuclear Structure: ^{189}, ^{190}, ^{191}, ^{192}, ^{194}Hg, ^{194}, ^{196}Pb; calculated superdeformed bands. Superfluid nuclear matter model, triplet Cooper pairing.

95Ku17 *1/N Expansion Formalism for High-Spin States*

S. Kuyucak, S. C. Li, Phys. Lett. 349B, 253 (1995).

Nuclear Structure: ^{190}, ^{192}, ^{194}Hg; calculated dynamic moments of inertia; deduced normal, superdeformed nuclei high-spin states analysis implications.

95Lu15 *Microscopic Study of a C_4-Symmetry Hypothesis in a ~ 150 Superdeformed Nuclei: Deformed Woods-Saxon mean field*

W. D. Luo, A. Bouguettoucha, J. Dobaczewski, J. Dudek, X. Li, Phys. Rev. C52, 2989 (1995).

Nuclear Structure: ^{149}Gd; calculated equilibrium deformation, superdeformed bands total energies vs spin. ^{153}Dy; calculated superdeformed bands total energies vs spin. Microscopic study of C_4 symmetry, deformed Wood-Saxon mean field.

95Ma01 *C_4 Symmetry Effects in Nuclear Rotational Motion*

A. O. Macchiavelli, B. Cederwall, R. M. Clark, M. A. Deleplanque, R. M. Diamond, P. Fallon, I. Y. Lee, F. S. Stephens, S. Asztalos, Phys. Rev. C51, R1 (1995).

Nuclear Structure: A=149-238; analyzed, reviewed ΔI=2 staggering effects in Eγ of superdeformed band transitions. Multiple K-bands mixing approach.

95Ma38 *Generator-Coordinate Method Study of Hexadecapole Correlations in Superdeformed ^{194}Hg*

P. Magierski, P. -H. Heenen, W. Nazarewicz, Phys. Rev. C51, R2880 (1995).

Nuclear Structure: ^{194}Hg; calculated potential energy curve, mass quadrupole moment vs (Q_{44}(z)) moment; deduced hexadecapole correlations role in superdeformed band, rotation effect. Skyrme-HFB method, zero-range density-dependent pairing interaction.

95Me07 *Quadrupole and Octupole Correlations in Normal, Superdeformed and Hyperdeformed States of ^{194}Pb*

J. Meyer, P. Bonche, M. S. Weiss, J. Dobaczewski, H. Flocard, P. -H. Heenen, Nucl. Phys. A588, 597 (1995).

Nuclear Structure: ^{192}, ^{194}, ^{196}, ^{198}, ^{200}Pb; calculated superdeformed band population evolution, spectra, energy curves vs quadrupole moment, quadrupole, octupole correlations in normal, hyperdeformed bands as well. Generator coordinate method.

95Mi20 *Microscopic Structure of Octupole Correlations at High-Spin in Superdeformed Open-Shell Nuclei*

S. Mizutori, Y. R. Shimizu, K. Matsuyanagi, Phys. Scr. T56, 276 (1995).

Nuclear Structure: ^{146}Nd, ^{148}Sm, ^{150}Gd, ^{152}Dy, ^{154}Er; calculated octupole strength function; deduced superdeformed bands octupole softness related features.

95Na03 *Octupole Correlations in Excited Bands of Superdeformed ^{152}Dy*

T. Nakatsukasa, K. Matsuyanagi, S. Mizutori, W. Nazarewicz, Phys. Lett. 343B, 19 (1995).

Nuclear Structure: ^{152}Dy; calculated superdeformed band dynamical moments of inertia; deduced rotation, octupole vibration interplay features. Cranked shell model, RPA.

95Na13 *Multiclustering and Physics of Exotic Nuclear Shapes*

W. Nazarewicz, S. Cwiok, J. Dobaczewski, J. X. Saladin, Acta Phys. Pol. B26, 189 (1995).

Nuclear Structure: ^{220}, ^{224}Rn, ^{222}, ^{226}, ^{230}Ra, ^{224}, ^{228}, ^{232}Th, ^{226}, ^{230}, ^{234}U; compiled, reviewed, analyzed potential energy surface predictions; deduced hyperdeformed minimum resemblance to di-nucleus. Multi-cluster model.

95Pa02 *C_4 Symmetry and Bifurcation in Superdeformed Bands*

I. M. Pavlichenkov, S. Flibotte, Phys. Rev. C51, R460 (1995).

Nuclear Structure: ^{149}Gd; analyzed superdeformed band γ-transition data; deduced ΔI=2 staggering effect explanation. Phenomenological C(4v) bifurcation theory.

95Ro08 *On the Stability of Rotating Nuclei Against Fission Through Creviced Shapes*

G. Royer, F. Haddad, J. Phys. (London) G21, 339 (1995).

Nuclear Structure: ^{24}Mg, ^{72}Se, ^{132}Ce, ^{191}Hg; calculated deformation rotational energy vs deformation, compact, crevice shaped path. A=20-120; calculated angular momentum, excitation energy, moment of inertia, mass quadrupole moment, hyperdeformed nuclei.

Nuclear Reactions: ^{100}Mo(^{55}Mn,X), ^{76}Ge(^{81}Br,X), ^{120}Sn(^{37}Cl,X), E not given; calculated deformation, rotational energies vs moment of inertia, angular momentum; deduced hyperdeformed states population related features.

95Se05 *Magnetic Dipole Transitions in Superdeformed Nuclei*

P. B. Semmes, I. Ragnarsson, S. Aberg, Phys. Lett. 345B, 185 (1995).

Nuclear Structure: ^{194}Hg, ^{194}Tl; calculated superdeformed, rotational bands B(λ). Particle plus rotor model.

95Su04 *Resurrection of the L-S Coupling Scheme in Superdeformation*

K. Sugawara-Tanabe, A. Arima, N. Yoshida, Phys. Rev. C51, 1809 (1995).

Nuclear Structure: ^{152}Dy, ^{192}Hg; calculated P-D levels (l.s.) operator eigevalues near superdeformation, M1 transition rates; deduced real-spin mechanism capability to reproduce unique parity level. Comparison with pseudospin mechanisms.

95Su21 *Quantitative Description of Superdeformed Bands with the Projected Shell Model*

Y. Sun, M. Guidry, Phys. Rev. C52, R2844 (1995).

Nuclear Structure: ^{132}Ce; calculated superdeformed band dynamical moment of inertia, Eγ. Projected shell model.

95Sz03 *On the Origin of Identical Bands in the Superdeformed States of Atomic Nuclei*

Z. Szymanski, Acta Phys. Pol. B26, 175 (1995).

Nuclear Structure: ^{152}, ^{153}Dy, ^{146}, ^{147}, ^{148}Gd, ^{194}, ^{193}Tl, ^{192}Hg; analyzed superdeformed band characteristics.

95Te03 *Superdeformed Rotational Bands with Density Dependent Pairing Interactions*

J. Terasaki, P. -H. Heenen, P. Bonche, J. Dobaczewski, H. Flocard, Nucl. Phys. A593, 1 (1995).

Nuclear Structure: ^{190}, ^{192}, ^{194}Hg, ^{194}Pb; calculated superdeformed bands charge quadrupole moments, nucleon quasi particle routhians, dynamic moments of inertia. ^{150}Gd; calculated dynamic moments of intertia.

95Tw01 *New Insights into Superdeformed Nuclei with EUROGAM*

P. J. Twin, Nucl. Phys. A583, 199c (1995).

Nuclear Structure: ^{151}, ^{152}, ^{153}Dy, ^{150}, ^{151}Tb, ^{149}, ^{150}Gd; analyzed data; deduced ΔI=4 staggering in superdeformed bands.

95Tw02 *Evidence for Shell Closure at Superdeformed Shape*

P. J. Twin, Phys. Scr. T56, 23 (1995).

Nuclear Structure: ^{151}, ^{152}, ^{153}Dy, ^{150}, ^{151}Tb, ^{149}, ^{150}Gd; compiled, reviewed yrast superdeformed band dynamic moments of inertia, other data aspects; deduced particle-hole excitations role in superdeformed bands.

95We02 *Shape Coexistence Effects of Super- and Hyperdeformed Configurations in Rotating Nuclei II. Nuclei with 42 ≤ Z ≤ 56 and 74 ≤ Z ≤ 92*

T. R. Werner, J. Dudek, At. Data Nucl. Data Tables 59, 1 (1995).

Nuclear Structure: Z=42-56; Z=74-92; compiled, reviewed high-spin data; calculated total energies; deduced superdeformed, hyperdeformed configurations shape coexistence features. Macroscopic-microscopic approach.

95Wy02 *Blocking Effects at Super-Deformed Shape*

R. Wyss, W. Satula, Phys. Lett. 351B, 393 (1995).

Nuclear Structure: ^{191}, ^{193}, ^{194}Hg, ^{193}, ^{194}, ^{195}Tl, ^{196}Pb; calculated dynamical moments of inertia, superdeformed bands; deduced blocking effect related features. Cranked Strutinsky pairing, deformations, self-consistent Lipkin-Nogami approach.

95Xu01 *Cranking Bohr-Mottelson Hamiltonian Applied to Superdeformed Bands in the A 150 Region*

F. Xu, J. Hu, Phys. Rev. C52, 431 (1995).

Nuclear Structure: ^{143}Eu, ^{152}Dy; calculated superdeformed band states transition energies. ^{146}, ^{147}, ^{148}, ^{149}, ^{150}Gd, ^{150}, ^{151}Tb, ^{151}, ^{152}, ^{153}Dy; deduced superdeformed state spin assignments. Cranking Bohr-Mottelson Hamiltonian.

96Af02 *Superdeformed Rotational Bands in the A ~ 140-150 Mass Region: A cranked relativistic mean field description*

A. V. Afanasjev, J. Konig, P. Ring, Nucl. Phys. A608, 107 (1996).

Nuclear Structure: ^{154}, ^{153}, ^{152}, ^{151}Dy, ^{154}Er, ^{152}, ^{151}, ^{150}, ^{145}Tb, ^{150}, ^{149}, ^{145}, ^{144}Gd, ^{144}, ^{143}, ^{142}Eu, ^{152}Sm; analyzed superdeformed bands systematics, dynamic moments of inertia, charge quadrupole, mass hexadecapole moments. Cranked relativistic mean field approach.

96Af03 *The Coexistence of the Intruder $\nu i_{13/2}$, Superdeformed and Terminating Bands in the A ~ 135 Mass Region*

A. V. Afanasjev, I. Ragnarsson, Nucl. Phys. A608, 176 (1996).

Nuclear Structure: ^{131}, ^{132}, ^{133}Ce, ^{133}, ^{135}, ^{137}Nd; Z=57-61; N=72-78; analyzed high-spin spectra systematics in mass region where superdeformed bands are observed; deduced coexistence with intruder, terminating bands. Configuration-dependent shell correction approach, cranked Nilsson potential.

96Af07 *Cranked Relativistic Mean Field Description of Superdeformed Bands in ^{83}Sr*

A. V. Afanasjev, J. Konig, P. Ring, Phys. Lett. 367B, 11 (1996).

Nuclear Structure: ^{83}Sr; calculated superdeformed bands associated kinematic, dynamic moments of inertia, mass, charge quadrupole moments. Cranked relativistic mean field theory, time reversal symmetry breaking.

96Bo06 *Microscopic Study of Superdeformation in the A = 150 Mass Region*

P. Bonche, H. Flocard, P. -H. Heenen, Nucl. Phys. A598, 169 (1996).

Nuclear Structure: ^{160}Gd, ^{151}, ^{152}Dy, ^{151}Tb; calculated nucleon pairing energies, particle routhians, dynamical moments of inertia for superdeformed bands; deduced method suitability for subtle phenomena studies. Cranked HFB method.

96De10 *Rotational Inertia of Superdeformed Nuclei: Intruder orbitals, pairing, and identical bands*

G. de France, C. Baktash, B. Haas, W. Nazarewicz, Phys. Rev. C53, R1070 (1996).

Nuclear Structure: A 150; A 190; analyzed dynamical moments of inertia fractional changes distributions for pairs of bands in superdeformed nuclei; deduced weaker pairing correlations, intruder orbitals roles.

96Do15 *Time Odd Components in the Rotating Mean Field and Identical Bands*

J. Dobaczewski, J. Dudek, Acta Phys. Pol. B27, 45 (1996).

Nuclear Structure: ^{152}Dy, ^{151}Tb, ^{150}Gd; calculated identical bands dynamical moments, rotating superdeformed nuclei. Hartree-Fock approach, local density approiximation based energy-density functional.

96Ha18 *Nuclear Superdeformation Data Tables*

X. -L. Han, C. -L. Wu, At. Data Nucl. Data Tables 63, 117 (1996).

Nuclear Structure: ^{83}, ^{82}Sr, ^{130}La, ^{131}, ^{132}, ^{133}Ce, ^{133}Pr, ^{133}, ^{134}, ^{135}, ^{136}, ^{137}Nd, ^{135}, ^{137}, ^{142}Sm, ^{144}, ^{143}, ^{142}Eu, ^{139}, ^{144}, ^{146}, ^{147}, ^{148}, ^{149}, ^{150}Gd, ^{150}, ^{151}, ^{152}Tb, ^{151}, ^{152}, ^{153}, ^{154}Dy, ^{191}Au, ^{189}, ^{190}, ^{191}, ^{192}, ^{193}, ^{194}Hg, ^{191}, ^{192}, ^{193}, ^{194}, ^{195}Tl, ^{192}, ^{193}, ^{194}, ^{195}, ^{196}, ^{198}Pb, ^{197}Bi; compiled superdeformed features related data.

96He02 *Comment on ' Shape and Superdeformed Structure in Hg Isotopes in Relativistic Mean Field Model ' and ' Structure of Neutron-Deficient Pt, Hg, and Pb Isotopes '*

K. Heyde, C. De Coster, P. Van Duppen, M. Huyse, J. L. Wood, W. Nazarewicz, Phys. Rev. C53, 1035 (1996).

Nuclear Structure: ^{176}, ^{178}, ^{180}, ^{182}, ^{184}, ^{186}, ^{188}, ^{190}, ^{192}, ^{194}, ^{196}, ^{198}Pt, ^{178}, ^{180}, ^{182}, ^{186}, ^{188}, ^{190}, ^{192}, ^{194}, ^{196}, ^{198}Hg; analyzed data, predicted B(λ); deduced quadrupole deformations; deduced prolate, superdeformed bands related conclusions implications. Nonrelativistic approach.

96Ja05 *Nonlinear Dynamics of High-j Cranking Model: A semiclassical approach*

S. R. Jain, A. K. Jain, Z. Ahmed, Phys. Lett. 370B, 1 (1996).

96Ku06 *Description of Superdeformed Nuclei in the Interacting Boson Model*

S. Kuyucak, M. Honma, T. Otsuka, Phys. Rev. C53, 2194 (1996).

Nuclear Structure: $^{190, 192, 194}$Hg, $^{192, 194, 196}$Pb, $^{148, 150}$Gd, $^{152, 154}$Dy; analyzed dynamic moment of inertia, B(λ) in some cases, superdeformed nuclei. Interacting boson model.

96My02 *The Rotating Nuclear Thomas-Fermi Model*

W. D. Myers, W. J. Swiatecki, Acta Phys. Pol. B27, 99 (1996).

Nuclear Structure: ^{152}Dy, ^{83}Sr; calculated fission barrier vs angular momentum, superdeformed nuclei.

96Na07 *Microscopic Structure of High-Spin Vibrational Excitations in Superdeformed $^{190, 192, 194}$Hg*

T. Nakatsukasa, K. Matsuyanagi, S. Mizutori, Y. R. Shimizu, Phys. Rev. C53, 2213 (1996).

Nuclear Structure: $^{190, 192, 194}$Hg; calculated octupole, (γ) vibrations excitation energy, B(λ), superdeformed bands dynamic moments of inertia. Cranked shell model extended by RPA.

96Na14 *Perspectives in High Spin Physics (Theoretical Remarks)*

W. Nazarewicz, Acta Phys. Pol. B27, 21 (1996).

Nuclear Structure: A=150; A=190; compiled, reviewed superdeformed deformed bands moments of inertia fractional changes, other high-spin data, aspects.

96Na15 *Octupole Vibrations at High Angular Momenta*

T. Nakatsukasa, Acta Phys. Pol. B27, 59 (1996).

Nuclear Structure: $^{190, 192, 194}$Hg; calculated octupole vibrational states, bands dynamical moments of inertia, superdeformed nuclei. ^{164}Yb; calculated octupole vibrational states. ^{238}U; calculated octupole vibrational states, B(E1), ratios, B(E3). Microscopic RPA.

96Ne02 *Microscopic Description of E2 and E3 Giant Resonances in Deformed and Superdeformed Nuclei*

V. O. Nesterenko, W. Kleinig, V. V. Gudkov, J. Kvasil, Phys. Rev. C53, 1632 (1996).

Nuclear Structure: ^{154}Sm, ^{152}Dy; calculated isoscalar E2, E3 giant resonances strength function in deformed, superdeformed nuclei. Vibrating potential model.

96Ra27 *Global Description of Nuclear Properties at High Angular Momentum - Properties of Upsloping Orbitals*

I. Ragnarsson, Acta Phys. Pol. B27, 33 (1996).

Nuclear Structure: ^{64}Zn, ^{108}Sn, ^{109}Sb, ^{155}Dy; calculated collective, high-spin, superdeformed bands moments of inertia; deduced configurational features, decoupling factor, hole role.

96Sa36 *Additivity of Quadrupole Moments in Superdeformed Bands: Single-particle motion at extreme conditions*

W. Satula, J. Dobaczewski, J. Dudek, W. Nazarewicz, Phys. Rev. Lett. 77, 5182 (1996).

Nuclear Structure: ^{148}, ^{149}Gd, ^{151}Tb, ^{151}Dy; calculated quadrupole, hexadecapole moments of superdeformed bands, charge moments. Skyrme-Hartree-Fock method.

96Si11 *Table of Superdeformed Nuclear Bands and Fission Isomers*

B. Singh, R. B. Firestone, S. Y. F. Chu, Nucl. Data Sheets 78, 1 (1996).

Compilation: A=81-245; compiled, evaluated superdeformed bands, fission isomers data.

96Su01 *Magnetic Dipole Transitions in Superdeformed Nuclei*

K. Sugawara-Tanabe, A. Arima, N. Yoshida, Phys. Rev. C53, 195 (1996).

Nuclear Structure: ^{193}Hg, ^{193}Tl, ^{153}Dy, ^{153}Ho; analyzed theoretical g(K) values. ^{193}Hg, ^{193}Tl deduced single particle levels assignments in superdeformed bands. ^{153}Dy, ^{153}Ho deduced superdeformed bands g(K).

96Su14 *Properties of $\Delta I = 4$ Bifurcation from the Projected Shell Model*

Y. Sun, J. -Y. Zhang, M. Guidry, Phys. Rev. C54, 2967 (1996).

Nuclear Structure: ^{162}, ^{166}Tm, ^{167}Er, ^{165}Ho, ^{170}Yb; analyzed levels data. ^{136}Pm; analyzed superdeformed bands; deduced ΔI=4 bifurcation sensitivity to quasiparticle distribution near Fermi surface. Projected shell model.

96Sz03 *Identical Rotational Bands in the A ~ 130 Superdeformed Region Analysed in Terms of the Pseudospin Symmetry*

Z. Szymanski, Acta Phys. Pol. B27, 1001 (1996).

Nuclear Structure: ^{133}, ^{132}, ^{131}Ce, ^{133}Pr; analyzed band structure in superdeformed region; deduced identical bands configurations. Pseudo-SU(3) symmetry approach.

96Wu05 *Unified Description of Collective Bands of Even-Even Nuclei and Fingerprint of the Nuclear γ Shape*

L. -A. Wu, H. -M. Ding, Z. -T. Yan, G. Liu, Phys. Rev. Lett. 76, 4132 (1996).

Nuclear Structure: ^{156}, ^{158}, ^{160}, ^{162}, ^{164}Dy; analyzed yrast level data; deduced parameter R. A=80-248; analyzed data; deduced relative root square deviation. ^{190}, ^{192}, ^{194}Hg; analyzed data; deduced superdeformed bands, parameter R, relative root square deviation.

96Zh20 *M1 Transitions between Superdeformed States in ^{195}Tl*

X. Zheng, X. Chen, X. Wang, J. Phys. (London) G22, 1343 (1996).

Nuclear Structure: ^{195}Tl; analyzed superdeformed bands transition Eγ, Iγ, B(λ) dipole transitions energies. Triaxial-particle-rotor model.

97Fa04 *Octupole Vibrations and Signature Splitting in Even Mass Hg Superdeformed Bands*

P. Fallon, F. S. Stephens, S. Asztalos, B. Busse, R. M. Clark, M. A. Deleplanque, R. M. Diamond, R. Krucken, I. Y. Lee, A. O. Macchiavelli, R. W. MacLeod, G. Schmid, K. Vetter, T. Nakatsukasa, Phys. Rev. C55, R999 (1997).

Nuclear Structure: ^{190}, ^{192}, ^{194}Hg; analyzed superdeformed bands octupole characteristics.

97Ja02 *Nonlinear Dynamics of Particle Rotor Model and Superdeformed Bands*

A. K. Jain, M. Dudeja, S. S. Malik, Z. Ahmed, Phys. Lett. 392B, 243 (1997).

Nuclear Structure: ^{133}Nd, ^{193}Tl; analyzed superdeformed bands Eγ vs spin. Particle-rotor model, nonlinear dynamics.

97La01 *New Parametrization for the Lagrangian Density of Relativistic Mean Field Theory*

G. A. Lalazissis, J. Konig, P. Ring, Phys. Rev. C55, 540 (1997).

Nuclear Structure: ^{16}O, ^{40}, ^{48}Ca, ^{58}Ni, ^{90}Zr, ^{116}, ^{124}, ^{132}Sn, ^{208}, ^{214}Pb; analyzed binding energy, neutron, charge radii; deduced model parameters. ^{152}Sm, ^{158}Gd, ^{162}Dy, ^{166}Er, ^{174}Yb, ^{232}Th, ^{236}, ^{238}U; calculated total binding energies, charge radii, quadrupole deformation parameters, proton quadrupole, hexadecupole moments. ^{102}, ^{104}, ^{106}, ^{108}, ^{110}, ^{112}, ^{114}, ^{116}, ^{118}, ^{120}, ^{122}, ^{124}, ^{126}, ^{128}, ^{130}, ^{132}, ^{134}Sn; calculated experimental, theoretical mass differences. ^{194}Hg; calculated superdeformed minimum. Relativistic mean field theory, new parametrization of effective nonlinear Lagrangian density.

97Su07 *Systematic Description of Yrast Superdeformed Bands in Even-Even Nuclei of the Mass-190 Region*

Y. Sun, J. -Y. Zhang, M. Guidry, Phys. Rev. Lett. 78, 2321 (1997).

Nuclear Structure: $^{188, 190, 192, 194, 196}$Hg, $^{190, 192, 194, 196, 198}$Pb; analyzed yrast superdeformed bands Eγ, dynamical moment of inertia. ^{194}Hg; analyzed transition quadrupole moments, g-factors. Projected shell model.

97Te04 *Superdeformed Bands of Odd Nuclei in A = 190 Region in the Quasiparticle Picture*

J. Terasaki, H. Flocard, P. -H. Heenen, P. Bonche, Phys. Rev. C55, 1231 (1997).

Nuclear Structure: ^{195}Pb, ^{193}Hg; calculated superdeformed bands related features; deduced density-dependent pairing forces advantages. Cranked HFB model.

97Va03 *A New Approach to Approximate Symmetry Restoration with Density Dependent Forces: The superdeformed band in ^{192}Hg*

A. Valor, J. L. Egido, L. M. Robledo, Phys. Lett. 393B, 249 (1997).

Nuclear Structure: ^{192}Hg; calculated superdeformed band associated dynamic moment of inertia.

97Yo01 *Onset of Rotational Damping in Superdeformed Nuclei*

K. Yoshida, M. Matsuo, Nucl. Phys. A612, 26 (1997).

Nuclear Structure: ^{143}Eu, $^{146, 147, 148, 149, 150}$Gd, $^{151, 152, 153}$Dy, $^{150, 151, 152}$Tb; calculated rotational damping onset excitation energy, number of superdeformed bands vs spin. Shell model, cranked Nilsson mean field, surface, volume delta two-body residual forces.

97Zh04 *Study of the Superdeformed Nuclei in A = 190 Region with the Cranking Bohr-Mottelson Hamiltonian*

S. -G. Zhou, C. Zheng, F. Xu, J. Hu, Nucl. Phys. A615, 229 (1997).

Nuclear Structure: $^{189, 191, 190, 192, 193, 194}$Hg, $^{192, 194, 196, 198, 193, 195}$Pb, $^{191, 193, 195, 192, 194}$Tl, ^{196}Bi, ^{191}Au, ^{198}Po; analyzed superdeformed bands transition energies; deduced mass, rigidity parameters. Cranking Bohr-Mottelson Hamiltonian.