

Lucrări cotate ISI Web of Knowledge

1. A. I. Budaca and **R. Budaca**, *Energy dependent collective excitations in Os and Pt isotopes*, Physica Scripta, in press (2017).
2. M. Mirea, **R. Budaca**, and A. Sandulescu, *Spontaneous fission, cluster emission and alpha decay of ^{222}Ra in a unified description*, Annals of Physics (New York), **380**, 154 (2017).
3. **R. Budaca** and A. I. Budaca, *Shape phase space mixing in critical point nuclei*, Physical Review C **94**, 054306 (2016). [1 citation]
4. **R. Budaca**, *Bohr Hamiltonian with an energy dependent γ -unstable Coulomb-like potential*, The European Physical Journal A **52**, 314 (2016). [1 citation]
5. **R. Budaca**, P. Baganu, M. Chabab, A. Lahbas, and M. Olune, *Extended study on a quasi-exact solution of the Bohr Hamiltonian*, Annals of Physics (New York) **375**, 65 (2016). [3 citations]
6. **R. Budaca** and A. I. Budaca, *Emergence of Euclidean dynamical symmetry as a consequence of shape phase mixing*, Physics Letters B **759**, 349 (2016). [1 citation]
7. A. I. Budaca, **R. Budaca** and I. Silisteanu, *Extended systematics of alpha decay half lives for exotic superheavy nuclei*, Nuclear Physics A **951**, 60 (2016). [6 citations]
8. **R. Budaca**, *Spherical vibrator model with an energy increasing stiffness*, Physics Letters B **751**, 39 (2015). [2 citations]
9. **R. Budaca** and A. I. Budaca, *Competing γ -rigid and γ -stable vibrations in neutron rich Gd and Dy isotopes*, The European Physical Journal A **51**, 126 (2015). [4 citations]
10. P. Baganu and **R. Budaca**, *Sextic potential for γ -rigid prolate nuclei*, Journal of Physics G: Nuclear and Particle Physics **42**, 105106 (2015). [10 citations]
11. **R. Budaca**, A. Sandulescu, and M. Mirea, *Quasifission mass distributions in the synthesis of ^{274}Lv with ^{26}Mg and ^{36}S projectiles*, Modern Physics Letters A **30**, 1550129 (2015). [10 citations]
12. **R. Budaca** and A. I. Budaca, *Conjunction of γ -rigid and γ -stable collective motion in the critical point of the phase transition from spherical to deformed nuclear shapes*, Journal of Physics G: Nuclear and Particle Physics **42**, 085103 (2015). [4 citations]
13. P. Baganu and **R. Budaca**, *Analytical solution for the Davydov-Chaban Hamiltonian with sextic potential for $\gamma = 30^\circ$* , Physical Review C **91**, 014306 (2015). [14 citations]
14. **R. Budaca**, *Harmonic oscillator potential with a sextic anharmonicity in the prolate γ -rigid collective geometrical model*, Physics Letters B **739**, 56 (2014). [3 citations]
15. **R. Budaca**, *Quartic oscillator potential in the γ -rigid regime of the collective geometrical model*, The European Physical Journal A **50**, 87 (2014). [4 citations]
16. A. A. Raduta and **R. Budaca**, *Deformation properties of the projected spherical single particle basis*, Annals of Physics (New York) **347**, 141 (2014). [3 citations]
17. **R. Budaca** and A. A. Raduta, *Semi-microscopic description of the double backbending in some deformed even-even rare earth nuclei*, Journal of Physics G: Nuclear and Particle Physics **40**, 025109 (2013). [1 citation]
18. **R. Budaca** and A. A. Raduta, *Compact formulas for rotational bands energies in transuranic region*, Romanian Journal of Physics, Vol. **57**, Nos. 7-8, 1088 (2012).
19. A. A. Raduta, **R. Budaca** and A. Faessler, *Analytical description of the coherent state model for near vibrational and well deformed nuclei*, Annals of Physics (New York) **327**, 671 (2012). [8 citations]

20. A. A. Raduta and **R. Budaca**, *Semimicroscopic description of the backbending phenomena in some deformed even-even nuclei*, Physical Review C **84**, 044323 (2011).
21. A. A. Raduta and **R. Budaca**, *Sum rule for a Schiff-like dipole moment*, International Journal of Modern Physics B **25**, 467 (2011).
22. A. A. Raduta, Al. H. Raduta and **R. Budaca**, *Collective properties of deformed atomic clusters described within a projected spherical basis*, Journal of Superconductivity and Novel Magnetism **24**, 645 (2011).
23. A. A. Raduta, **R. Budaca** and A. Faessler, *Closed formulas for ground band energies of nuclei with various symmetries*, Journal of Physics G: Nuclear and Particle Physics **37**, 085108 (2010). [4 citations]
24. A. A. Raduta and **R. Budaca**, *Extension of the Thomas-Reiche-Kuhn sum rule to a Schiff-like dipole moment*, Romanian Journal of Physics, Vol. **55**, Nos. 1-2, 75 (2010).
25. A. A. Raduta, **R. Budaca** and Al. H. Raduta, *Collective dipole excitations in sodium clusters*, Physical Review A **79**, 023202 (2009). [3 citations]
26. A. A. Raduta, **R. Budaca** and C. M. Raduta, *Semiclassical description of triaxial rigid rotor*, Physical Review C **76**, 064309 (2007). [1 citation]

Publicații de tip Proceedings

1. A. I. Budaca, **R. Budaca** and I. Silisteanu, *Updated empirical estimations of α decay half lives for superheavy nuclei*, AIP Conference Proceedings **1796**, 020016 (2017), 6p.
2. **R. Budaca**, *Bohr Hamiltonian with an energy dependent γ -unstable harmonic oscillator potential*, AIP Conference Proceedings **1796**, 020007 (2017), 6p.
3. P. Baganu and **R. Budaca**, *Shape phase transition in γ -rigid prolate nuclei*, AIP Conference Proceedings **1796**, 020008 (2017), 6p.
4. **R. Budaca**, *Anharmonic oscillator potentials in the prolate γ -rigid regime of the collective geometrical model*, Journal of Physics: Conference Series, in press (2017), 3p.
5. P. Baganu and **R. Budaca**, *Quadrupole shape phase transitions in the γ -rigid regime*, Bulgarian Journal of Physics **42**, 513 (2015), 10p.
6. **R. Budaca** and A. I. Budaca, *Interplay of γ -rigid and γ -stable collective motion in neutron-rich rare earth nuclei*, Bulgarian Journal of Physics **42**, 503 (2015), 10p.
7. P. Baganu and **R. Budaca**, *$Z(4)$ -Sextic: A γ -rigid solution of the Bohr Hamiltonian with sextic oscillator potential for β and $\gamma = 30^\circ$* , AIP Conference Proceedings **1681**, 040014 (2015), 4p.
8. **R. Budaca**, *Harmonic oscillator potential with a quartic anharmonicity in the prolate γ -rigid collective geometrical model*, AIP Conference Proceedings **1694**, 020010 (2015), 6p.
9. P. Baganu and **R. Budaca**, *Anharmonic vibrations around a triaxial nuclear deformation "frozen" to $\gamma = 30^\circ$* , AIP Conference Proceedings **1694**, 020006 (2015), 6p.
10. **R. Budaca** and A. A. Raduta, *Semi-microscopic description of the proton- and neutron-induced backbending phenomena in some deformed even-even rare earth nuclei*, EPJ Web of Conferences **66**, 02017 (2014), 4p.
11. A. A. Raduta and **R. Budaca**, *A semi-microscopic approach to the backbending phenomena in even-even nuclei*, Journal of Physics: Conference Series **413**, 012028 (2013), 5p.