

## PUBLICATIONS including BOOKS and SEMINAR TALKS

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### Articles in Journals

1. 353.\*\* Poenaru, D. N., Gherghescu, R. A. Light fragment preformation in cold fission of  $^{282}\text{Cn}$ , *European Physical Journal A*, **52** (2016) 349-355.
2. 348. Poenaru, D. N., Gherghescu, R. A. Spontaneous fission of superheavy nucleus  $^{286}\text{Fl}$ , *Physical Review C*, **94** (1) (2016) 014309, 7 pag.
3. 349. Poenaru, D. N., Gherghescu, R. A., Greiner, W. Charged anti-cluster decay modes of antimatter nuclei, *Romanian Reports in Physics* **68** (2016) (1) 151-159.
4. 335. Gherghescu, R. A., Poenaru, D. N. Spontaneous fission of superheavy nuclei, *Pramana Journal of Physics*, **85** (3) (2015) 439-446.
5. 334. Poenaru, D. N., Gherghescu, R. A. Fission approach to cluster radioactivity, *Pramana Journal of Physics*, **85** (3) (2015) 415-421.
6. 333. Poenaru, D. N., Gherghescu, R. A. Fission decay of  $^{282}\text{Cn}$  studied using cranking inertia. *Journal of Physics G: Nuclear and Particle Physics* **41** (12) (2014) 125104.
7. 329. Shakib, N.S., Gherghescu, R.A., Poenaru, D. N., Firoozabadi, M.M., Rahimi, M.F. Fission paths influenced by proton and neutron magicity, *Romanian Journal of Physics*, **59** (5-6) (2014) 515-528, [http://www.nipne.ro/rjp/2014\\_59\\_5-6/0515\\_0528.pdf](http://www.nipne.ro/rjp/2014_59_5-6/0515_0528.pdf).
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9. 325. Gherghescu, R. A., Poenaru, D. N. Shell and pairing influence on sub-barrier nuclear fusion, *Romanian Journal of Physics* **58** (9-10) (2013) 1178-1187. [http://www.nipne.ro/rjp/2013\\_58\\_9-10/1178-1187.pdf](http://www.nipne.ro/rjp/2013_58_9-10/1178-1187.pdf)
10. 322. Poenaru, D. N., Gherghescu, R. A., Greiner, W. Alpha- cluster- and fission decay of superheavy nuclei, *Romanian Journal of Physics* **58** (9-10) (2013) 1157-1166. [http://www.nipne.ro/rjp/2013\\_58\\_9-10/1157\\_1166.pdf](http://www.nipne.ro/rjp/2013_58_9-10/1157_1166.pdf)
11. 321. Poenaru, D. N., Gherghescu, R. A., Greiner, W. Heavy-particle radioactivity, *Journal of Physics: Conference Series* **436** (2013), 012056, 7 pag.
12. 318. Poenaru, D. N., Gherghescu, R. A., Anghel, C., Greiner, W. Using Lipkin-Nogami and BCS pairing within macroscopic-microscopic method. *Romanian Reports in Physics* **64 Supplement** (2012) 1329-1343.
13. 315. Poenaru, D. N., Gherghescu, R. A., Greiner, W. Cluster decay of superheavy nuclei, *Physical Review C* **85** (2012) nr 3, 034615, 7 pag.
14. 314. Poenaru, D. N., Gherghescu, R. A., Greiner, W. Metallic atomic clusters. *Romanian Journal of Physics* **57** (2012) 431441.
15. 313. Poenaru, D. N., Gherghescu, R. A., Greiner, W. Competition of alpha decay and heavy particle decay in superheavy nuclei. *International Journal of Modern Physics E* **21** (2012) 1250022, 8 pag.
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\*\*The numbers (last one 356) correspond to a list chronologically ordered; they are also used in the list of citations. xxx marks a new preliminary entry. In the table on the last page I give a statistics, the numbers of various items.

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385. **Poenaru, D. N.** Shell correction method for the analysis of stability of deformed atomic clusters. Special Lecture, The MesoBioNano Science Group at Frankfurt Institute for Advanced Studies (FIAS), Frankfurt am Main, 5 Dec 2008.
386. **Poenaru, D. N.** Atomic clusters on surfaces. Institut für Theoretische Physik der Justus Liebig Universität, Giessen (23 May 2008).
387. **Poenaru, D. N.** Macroscopic-microscopic approach to atomic cluster physics. Theoretical MesoBioNano Science Group at Frankfurt Institute for Advanced Studies (FIAS) (17 April 2007).
388. **Poenaru, D. N.** A. Proca, and his equation of the massive vector boson field. Institut für Theoretische Physik der Justus Liebig Universität, Giessen (10 Nov. 2006).
389. **Poenaru, D. N.** Fission valleys and heavy ion decay modes. Centre d’Etudes Nucléaires Bordeaux-Gradignan, Gradignan, (7 October 2005).
390. **Poenaru, D. N.** Fission phenomena. Max Planck Institute for Brain Research (Interdisciplinary FIAS Colloquium), Frankfurt am Main (28 October 2004).
391. **Poenaru, D. N.** Saddle point shapes of nuclei. Institut für Theoretische Physik der Justus Liebig Universität, Giessen (23 July 2003).
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395. **Poenaru, D. N.** Quasi-molecular states and multicluster fission. Theory Group, Oak Ridge National Laboratory, Oak Ridge, Tennessee, USA (19 Nov. 1999).

### Invited Seminar Talks Abroad

382. **Poenaru, D. N.** A strong decay mode of superheavy nuclei. Institut Pluridisciplinaire Hubert Curien, Strasbourg, 29 Nov. 2011.

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397. **Poenaru, D. N.** Quasi-molecular states in ternary nuclear fission. University of Giessen, Germany (22 Oct. 1999).
398. **Poenaru, D. N.** Cluster radioactivities and ternary fission. Cyclotron Laboratory, A&M University, College Station, Texas, USA, (12 Nov. 1998).
399. **Poenaru, D. N.** Quasi-molecular states and multicluster fission. Oak Ridge National Laboratory, Theoretical Department, Oak Ridge, Tennessee, USA (5 Nov. 1998).
400. **Poenaru, D. N.** Cluster radioactivity and superheavy nuclei. Yale University, Wright Nuclear Structure Lab., New Haven, CN, USA, (Nov. 1997).
401. **Poenaru, D. N.** Fine structure of  $^{14}\text{C}$  radioactivity. Institute of Nuclear Physics, Theoretical Physics Department, Orsay, France (Feb. 1995).
402. **Poenaru, D. N.** The island of cluster emitters above  $^{100}\text{Sn}$ . University of Giessen, Germany (July 1995).
403. **Poenaru, D. N.**  $^{12}\text{C}$  radioactivity of  $^{114}\text{Ba}$ . Gesellschaft für Schwerionenforschung, Darmstadt, Germany, (June 1994).
404. **Poenaru, D. N.** Universal curves for alpha decay and heavy particle radioactivities. University of Giessen, Germany (June 1993).
405. **Poenaru, D. N.** Nuclear dynamics of cluster emission. Institute of Nuclear Physics, Orsay, France (Oct. 1992).
406. **Poenaru, D. N.** Cluster preformation probability in fission theory. University of Giessen, Germany (May 1991).
407. **Poenaru, D. N.** Experiments on spontaneous emission of heavy particles from nuclei. University of Milano, Italy (Oct. 1990).
408. **Poenaru, D. N.** Inertia and fission paths for cluster decay modes. Boris Kidric Institute, Belgrad, Yugoslavia (Sept. 1990).
409. **Poenaru, D. N.** Cluster emission from nuclei far off the beta-stability line. University of Tübingen, Germany (May 1990).
410. **Poenaru, D. N.** Cluster radioactivity. Institut für Kernchemie, University of Mainz, Germany (14 June 1989).
411. **Poenaru, D. N.** Experimentally confirmed heavy particle radioactivities. Technische Hochschule, Darmstadt, Germany (May 1989).
412. **Poenaru, D. N.** Werner-Wheeler dynamics of cluster emission. University of Tokyo, Japan (August 1988).
413. **Poenaru, D. N.** Analytical superasymmetric fission model and the odd-even cluster emitters. Institute of Nuclear Physics, Orsay, France (1987).
414. **Poenaru, D. N.** Cluster emission from nuclei far off the beta-stability line. University of Tübingen, Germany (July 1987).
415. **Poenaru, D. N.** Alpha decay, cold fission and cluster radioactivities. Gesellschaft für Schwerionenforschung, Darmstadt, Germany, (June 1985).
416. **Poenaru, D. N.** New superasymmetric fission processes. Institute of Nuclear Physics, Karlsruhe, Germany (June 1985).
417. **Poenaru, D. N.** Nuclear decay by spontaneous emission of charged particles. University of Giessen, Germany (May 1985).
418. **Poenaru, D. N.** Heavy particle radioactivity. Institut für Theoretische Physik der J. W. Goethe Universität, Frankfurt am Main, Germany (April 1985).
419. **Poenaru, D. N.** New kind of radioactivity — spontaneous emission of heavy ions. Joint Institute for Nuclear Research, Dubna, U. S. S. R. (1984).
420. **Poenaru, D. N.** Predicted halflives for  $^5\text{He}$  radioactivity within analytical superasymmetric fission model. Institute of Nuclear Research, Kiev, U. S. S. R. (1983).
421. **Poenaru, D. N.** Spontaneously fissioning shape isomers. Institute of Physics and Energy, Obninsk, U. S. S. R. (1976).

### Total Number of different Publications

1. Articles in refereed Journal	206
2. Chapters in Books edited by others	11
3. Chapters in Books edited by me	17
4. Books	12
4.1. Published in Romania	5
4.2. Published in USA, Germany, United Kingdom, North Holland and Singapore	7
5. Invited presentations at International Conferences	65
6. Oral Contributions at International Conferences	34
7. Selected Invited presentations and Oral Contributions at National Conferences	9
8. E-prints and Preprints	25
9. Popularization of Science	22
10. Invited seminar talks abroad	40