

### Lista de publicatii, participari la conferinte, *meeting-uri* (with corresponding author underlined)

#### Lista de publicatii (WoS AIS/Q2)

- [1] V Avrigeanu and M. Avrigeanu, *Validation of an optical potential for incident and emitted low-energy alpha-particles in the A60 mass range* (Part of a collection: [Light Clusters in Nuclei and Nuclear Matter: Nuclear Structure and Decay, Heavy Ion Collisions, and Astrophysics](#)), Eur. Phys. J. A **57**, 54 (2021), doi:10.1140/epja/198 s10050-020-00336-0; <https://link.springer.com/article/10.1140/epja/s10050-020-00336-0>
- [2] M. Avrigeanu, D. Rochman, A. J. Koning, U. Fischer, D. Leichtle, C. Costache, and V. Avrigeanu, *Advanced breakup nucleon enhancement of deuteron-induced reaction cross sections*. Eur. Phys. J. A **58**, 3 (2022), doi:10.1140/epja/s10050-021-00659-6; <https://link.springer.com/article/10.1140/epja/s10050-021-00659-6>
- [3] V Avrigeanu and M. Avrigeanu, *Validation of an optical potential for incident and emitted low-energy alpha-particles in the A60 mass range. II. Neutron-induced reactions on Ni isotopes* (Part of a collection: [Light Clusters in Nuclei and Nuclear Matter: Nuclear Structure and Decay, Heavy Ion Collisions, and Astrophysics](#)), Eur. Phys. J. A **58**, 189 (2022), doi:10.1140/epja/s10050-022-00831-6; <https://link.springer.com/article/10.1140/epja/s10050-022-00831-6>
- [4] V. Avrigeanu and M. Avrigeanu, *Charged-particle optical potentials tested by first direct measurement of the  $^{59}\text{Cu}(p,a)^{56}\text{Ni}$  reaction*, Phys. Rev. C **106**, 024615 (2022), doi:10.1103/PhysRevC.106.024615; <https://doi.org/10.1103/PhysRevC.106.024615>
- [5] M. Avrigeanu and V. Avrigeanu, *Optical potential for incident and emitted low-energy alpha particles. III. Non-statistical processes induced by neutrons on Zr, Nb, and Mo nuclei*, Phys. Rev. C **107**, 034613 (2023).
- [6] V. Avrigeanu and M. Avrigeanu, *Consistent assessment of neutron-induced activation of  $^{93}\text{Nb}$* , Front. Phys. **11**, 1142436 (2023), <https://doi.org/10.3389/fphy.2023.1142436> (part of the *Research Topic on Nuclear Data for Fusion Technology from Basic Research to Full-Scale Applications*, <https://www.frontiersin.org/research-topics/39045/nuclear-data-for-fusion-technology-from-basic-research-to-full-scale-application> )
- [7] M. Avrigeanu and V. Avrigeanu, *Structural material nuclear data basic research*, Front. Phys. **11**, 1172697 (2023), <https://doi.org/10.3389/fphy.2023.1172697> (part of the *Research Topic on Nuclear Data for Fusion Technology from Basic Research to Full-Scale Applications*, <https://www.frontiersin.org/research-topics/39045/nuclear-data-for-fusion-technology-from-basic-research-to-full-scale-application> )
- [8] V. Avrigeanu and M. Avrigeanu, *Constrained model assumptions using recent data of  $\alpha$ -particle reactions on  $^{144}\text{Sm}$* , Front. Phys. **12**, 1247311 (2023), <https://doi.org/10.3389/fphy.2023.1247311> (part of the *Research Topic on Cross Section Data of Interest for Nuclear Astrophysics: Experimental and Theoretical Status, and Perspectives*. <https://www.frontiersin.org/research-topics/51270/cross-section-data-of-interest-for-nuclear-astrophysics-experimental-and-theoretical-status-and-perspectives#overview>)
- [9] M. Avrigeanu, E. Simeckova, J. Mrazek, C. Costache, and V. Avrigeanu, *Modeling of deuteron-induced reactions on molybdenum at low energies* (submitted for publication in Phys. Rev. C, Nov. 1st, 2023)

#### Participari la conferinte

- [10] M. Avrigeanu and V. Avrigeanu, [Role of direct interactions in \(d,p\) and \(d,2p\) reactions](#), submitted to EPJ Web of Conf. (14.10.2022); oral talk at [Int. Conf. on Nucl. Data for Sci. and Tech. \(ND2022\), July 25-29, 2022, Sacramento, California, US](#); EPJ Web of Conf. **284**, 03006 (2023), <https://doi.org/10.1051/epjconf/202328403006>
- [11] V. Avrigeanu and M. Avrigeanu, [Additional reaction mechanisms to statistical alpha-emission and the related optical-potential validation](#), submitted to EPJ Web of Conf. (15.10.2022) ; oral talk at [Int. Conf. on Nucl. Data for Sci. and Tech. \(ND2022\), July 25-29, 2022, Sacramento, California, US](#); EPJ Web of Conf. **284**, 07001 (2023), <https://doi.org/10.1051/epjconf/202328407001>
- [12] M. Avrigeanu and V. Avrigeanu, *Due consideration of the breakup and direct reaction mechanisms within (d,p), (d,2p), (d,xn2p), and (d,xn) reactions*, main oral talk at *16th Varenna Conference on Nuclear Reaction Mechanisms* (NRM2023), Varenna, Italy, June 11-16, 2023, F. Cerutti and T. Kawano (Eds.), <https://indico.cern.ch/event/1132769/>; EPJ Web of Conf. (accepted, Oct. 2023)

### Meetings

- [13] V. Avrigeanu and M. Avrigeanu, *Evaluation of fast-neutron induced alpha emission for A~90 nuclei*, Report EFFDOC-1472, OECD/NEA Data Bank, JEFF Meeting, April 26, 2022, [https://www.oecd-nea.org/dbdata/nds\\_effdoc/effdoc-1472.pdf](https://www.oecd-nea.org/dbdata/nds_effdoc/effdoc-1472.pdf)
- [14] M. Avrigeanu and V. Avrigeanu, *Progress report on analysis of deuteron-induced reactions on structural materials*, Report EFFDOC-1473, OECD/NEA JEFF Meeting, April 26, 2022, [https://www.oecd-nea.org/dbdata/nds\\_effdoc/effdoc-1473.pdf](https://www.oecd-nea.org/dbdata/nds_effdoc/effdoc-1473.pdf)
- [15] V. Avrigeanu and M. Avrigeanu, *Charged-particle optical potentials proved besides the stability line*, Report JEFFDOC-2137, OECD/NEA JEFF Meeting, April 26, 2022, [https://www.oecd-nea.org/dbdata/nds\\_jeffdoc/jeffdoc-2137.pdf](https://www.oecd-nea.org/dbdata/nds_jeffdoc/jeffdoc-2137.pdf)
- [16] M. Avrigeanu and V. Avrigeanu, *Analysis of the deuteron activation of neutron-rich Mo nuclei*, Report JEFFDOC-2137, OECD/NEA JEFF Meeting, April 26, 2022, [https://www.oecd-nea.org/dbdata/nds\\_jeffdoc/jeffdoc-2138.pdf](https://www.oecd-nea.org/dbdata/nds_jeffdoc/jeffdoc-2138.pdf)
- [17] M. Avrigeanu and V. Avrigeanu, *Progress report on analysis of deuteron-induced reactions on structural materials*, Report EFFDOC-1487, OECD/NEA JEFF Meeting, Nov. 24, 2022, [https://www.oecd-nea.org/dbdata/nds\\_effdoc/effdoc-1487.pdf](https://www.oecd-nea.org/dbdata/nds_effdoc/effdoc-1487.pdf)
- [18] V. Avrigeanu and M. Avrigeanu, *Progress report on evaluation of fast-neutron induced alpha emission*, Report EFFDOC-1488, OECD/NEA Data Bank, JEFF Meeting, Nov. 24, 2022, [https://www.oecd-nea.org/dbdata/nds\\_effdoc/effdoc-1488.pdf](https://www.oecd-nea.org/dbdata/nds_effdoc/effdoc-1488.pdf)
- [19] V. Avrigeanu and M. Avrigeanu, *Evaluation of fast-neutron induced alpha emission*, Report EFFDOC-1503, OECD/NEA Data Bank, JEFF Meeting, April 24, 2023, [https://www.oecd-nea.org/dbdata/nds\\_effdoc/effdoc-1503.pdf](https://www.oecd-nea.org/dbdata/nds_effdoc/effdoc-1503.pdf)
- [20] M. Avrigeanu and V. Avrigeanu, *Progress report on analysis of deuteron-induced reactions on structural materials*, Report EFFDOC-1504, OECD/NEA JEFF Meeting, April 24, 2023, [https://www.oecd-nea.org/dbdata/nds\\_effdoc/effdoc-1504.pdf](https://www.oecd-nea.org/dbdata/nds_effdoc/effdoc-1504.pdf)
- [21] V. Avrigeanu and M. Avrigeanu, *Progress report on evaluation of fast-neutron induced alpha emission*, Report EFFDOC-1488, OECD/NEA Data Bank, JEFF Meeting, Nov. 24, 2023, [https://www.oecd-nea.org/dbdata/nds\\_effdoc/effdoc-1518.pdf](https://www.oecd-nea.org/dbdata/nds_effdoc/effdoc-1518.pdf)
- [22] M. Avrigeanu and V. Avrigeanu, *Progress report on analysis of deuteron-induced reactions on structural materials*, Report EFFDOC-1519, OECD/NEA JEFF Meeting, Nov. 27, 2023, [https://www.oecd-nea.org/dbdata/nds\\_effdoc/effdoc-1519.pdf](https://www.oecd-nea.org/dbdata/nds_effdoc/effdoc-1519.pdf)