

### Peer-review publications

1. A. Melintescu, D. Galeriu (2016), "Uncertainty of current understanding regarding OBT formation in plants", submitted to *J. Environ. Radioact.*, under revision
2. D. Galeriu, A. Melintescu, „Relevance of night production of OBT in crops”, prezentare orală ([http://www.ans.org/meetings/m\\_213](http://www.ans.org/meetings/m_213) <http://tritium2016.org/>), accepted to Fusion Science and Technology, FST16-174R1, apare in 2017
3. Chambers, S.D., Galeriu, D., Williams, A.G., Melintescu, A., Griffiths, A.D., Crawford, J., Dyer, L., Duma, M., Zorila, B., „Atmospheric stability effects on potential radiological releases at a nuclear research facility in Romania: characterising the atmospheric mixing state”, *Journal of Environmental Radioactivity* 154 (2016) 68-82.
4. **A. Melintescu, D. Galeriu**, S. Diabaté, S. Strack, “Preparatory steps for a robust dynamic model for OBT dynamics in agricultural crops”, *Fusion Sci. Technol.* (2015) **67** (3):479-482
5. **D. Galeriu, A. Melintescu**, “Progresses in tritium accident modelling in the frame of IAEA EMRAS II”, accepted to *Fusion Sci. Technol.* (2015) **67** (2):343-348
6. **D. Galeriu, A. Melintescu**, M. Duma, B. Zorila, A. Gheorghiu, “Nuclear Meteorology at IFIN-HH”, *Romanian J. Phys.* (2014) **59**:999-1011
7. **D. Galeriu, A. Melintescu**, “Carbon-14 dynamics in rice: an extension of the ORYZA2000 model”, *Radiat. Environ. Biophys.* (2014) **53** (1):187-202
8. **D. Galeriu, A. Melintescu**, S. Strack, M. Atarashi-Andoh, S.B. Kim, “An overview of organically bound tritium experiments in plants following a short atmospheric HTO exposure”, *J. Environ. Radioactiv.* (2013) **118**:40-56.
9. **A. Melintescu, D. Galeriu**, S. Tucker, P. Kennedy, F. Siclet, K. Yamamoto, S. Uchida, “Carbon-14 transfer into potato plants following a short exposure to an atmospheric  $^{14}\text{CO}_2$  emission: observations and model predictions”, *J. Environ. Radioactiv.* (2013) **115**:183-191.
10. **A. Melintescu, D. Galeriu**, S.B. Kim, “Tritium dynamics in large fish – a model test”, *Radioprotection* (2011) **46** (6):S431-S436.
11. **D. Galeriu, A. Melintescu**, “A model approach for tritium dynamics in wild animals and birds”, *Radioprotection* (2011) **46** (6):S445-S451.
12. **A. Melintescu, D. Galeriu**, “Exchange velocity approach and the role of photosynthesis for tritium transfer from atmosphere to plants”, *Fusion Sci. Technol.* (2011) **60** (3):1179 – 1182.
13. **D. Galeriu, A. Melintescu**, “Research and development of environmental tritium modelling”, *Fusion Sci. Technol.* (2011) **60** (4):1232 – 1237.
14. L. Patryl, **D. Galeriu**, P. Armand (2011) Sensitivity analysis of rain characteristics on HTO concentrations in drops. *Fusion Sci. Technol.* **60** (4):1228-1231
15. **A. Melintescu, D. Galeriu**, “Dynamic model for tritium transfer in an aquatic food chain”, *Radiat. Environ. Biophys.* (2011) **50**:459–473.
16. T.L. Yankovich, S.B. Kim, F. Baumgärtner, **D. Galeriu, A. Melintescu**, K. Miyamoto, M. Saito, F. Siclet and P. Davis, “Measured and Modelled Tritium Concentrations in Freshwater Barnes Mussels (*Elliptio complanata*) Exposed to an Abrupt Increase in Ambient Tritium Levels”, *J. Environ. Radioactiv.* (2011) **102**:26-34.
17. D.V. Vamanu, D.S. Slavnicu, **D.C. Galeriu**, V.T. Acasandrei, D. Gheorghiu, **A. Melintescu**, “Decommissioning research reactors: a case of a reference accident scenario”, *Romanian Rep. Phys.* (2011) **63** (1):43-60
18. **Galeriu, D., Melintescu, A.**, 2015. Progresses in tritium accident modelling in the frame of IAEA EMRAS II. *Fusion Sci. Technol.* **67**, 343-348.
19. **Melintescu, A., Galeriu, D.**, Diabaté, S., Strack, S., 2015. Preparatory steps for a robust dynamic model for OBT dynamics in agricultural crops. *Fusion Sci. Technol.* **67**, 479-482.

20. Golubev, A., Balashov, Y., Mavrin, S., Golubeva, V., **Galeriu, D.**, 2015. HTO washout model: On the relationship between exchange rate and washout coefficient. *Fusion Sci. Technol.* 67, 349-352.
21. Baglan, N., Kim, S.B., Cossonnet, C., Croudace, I.W., Fournier, M., **Galeriu, D.**, Warwick, P.E., Momoshima, N., Ansoborlo, E., 2015. Organically bound tritium analysis in environmental samples. *Fusion Sci. Technol.* 67, 250-253.

### Conferences and workshops

1. **Anca Melintescu, Dan Galeriu,** „Importance of HTO dynamics in leaves for OBT production in plants”, prezentare orală, 5<sup>th</sup> workshop on OBT (Organically Bound Tritium), 3-8 Oct. 2016, Le Mans Franta (<http://www.obt2016.com/>)
2. Scott Chambers, Alistair Williams, **Dan Galeriu, Anca Melintescu,** Marin Duma, „Radon-based assessment of stability effects on potential radiological releases”, Proceedings of 17<sup>th</sup> International Conference on Harmonisation within Atmospheric Dispersion Modelling for Regulatory Purposes (HARMO 17), 9-12 May 2016, Budapest, Hungary, ISBN 978-963-9931-10-7, Edited by: Laszlo Bozo, Zita Ferenczi, Marta, P. Puskas, P. 558-563.
3. **Dan Galeriu, Anca Melintescu,** “Tritium Radioecology - Contribution from IFIN-HH”, *NUCLEAR 2016 – Sustainable Development through Nuclear Research and Education* May 18 – 20, 2016, Pitesti, ROMANIA
4. D. Galeriu, A Melintescu, „Understanding the risk from tritium exposure”, LECTIE INVITATA, Karp Spring Symposium, Byeonsan, R. Korea April 7 2016 (Societatea Sud-Koreana de Radioprotectie)
5. **A. Melintescu, D. Galeriu,** “Models and data uncertainty of tritium transfer from air to soil and plants”, 3<sup>rd</sup> Technical Meeting on MODARIA, WG 5 – Uncertainty and variability analysis for assessments of radiological impacts arising from routine discharges of radionuclides, 10-14 November 2014, IAEA Vienna
6. **A. Melintescu, D. Galeriu,** “Update on biota H-3 and C-14 modelling”, 3<sup>rd</sup> Technical Meeting on MODARIA, WG 8 – Biota modelling, 10-14 November 2014, IAEA Vienna
7. **A. Melintescu, D. Galeriu,** N.A. Beresford, “Energy Metabolism and Transfer of <sup>3</sup>H and <sup>14</sup>C in Mammals, Birds, and Fish”, International Conference on Radioecology & Environmental Radioactivity (ICRER 2014), 7-12 September 2014, Barcelona, Spain (available at <https://intranet.pacifico-meetings.com/amsysweb/publicacionOnline.jsf?id=146>)
8. **D. Galeriu, A. Melintescu,** C. Lazar, “Development of CROPTRIT Model: The Dynamics of Tritium in Agricultural Crops”, International Conference on Radioecology & Environmental Radioactivity (ICRER 2014), 7-12 September 2014, Barcelona, Spain (available at <https://intranet.pacifico-meetings.com/amsysweb/publicacionOnline.jsf?id=146>)
9. **A. Melintescu, D. Galeriu,** “A model approach for <sup>3</sup>H and <sup>14</sup>C dynamics in biota (un update)”, Second Technical Meeting (TM) on Modelling and Data for Radiological Impact Assessments MODARIA , WG 8 – Biota Modelling: Further development of transfer and exposure models and application to scenarios, 11-15 November 2013, IAEA Headquarters, Vienna
10. **D. Galeriu, A. Melintescu,** “Romanian experience with CANDU”, Second Technical Meeting (TM) on Modelling and Data for Radiological Impact Assessments MODARIA , WG 5 - Uncertainty and variability analysis for assessments of radiological impacts arising from routine discharges of radionuclides, 11-15 November 2013, IAEA Headquarters, Vienna
11. **A. Melintescu, D. Galeriu,** “OBT and human tritium dosimetry”, 2<sup>nd</sup> OBT Workshop: Research, analysis and intercomparison results”, Southampton, UK, 23-25<sup>th</sup> September 2013 (see <http://gau.org.uk/obt/index.php>)
12. **D. Galeriu, A. Melintescu,** “Night OBT in crops – the need for well-designed experiments”, 2<sup>nd</sup> OBT Workshop: Research, analysis and intercomparison results”, Southampton, UK, 23-25<sup>th</sup> September 2013 (see <http://gau.org.uk/obt/index.php>)
13. **D. Galeriu, A. Melintescu,** A. Gheorghiu, “Environmental modeling for nuclear safety – the case of tritium”, 2<sup>nd</sup> European Nuclear Physics Conference, September 17-21, 2012, Bucharest,

Romania

(see

<http://www.nipne.ro/indico/contributionDisplay.py?contribId=65&sessionId=12&confId=0>)

14. **D. Galeriu, A. Melintescu**, “Research and development of environmental tritium modelling – an update”, 57<sup>th</sup> Annual Meeting of the Health Physics Society, 22-26 July 2012, Sacramento, California, USA (see [http://www.hps.org/documents/57\\_annual\\_meeting\\_final\\_program.pdf](http://www.hps.org/documents/57_annual_meeting_final_program.pdf))

15. **D. Galeriu, A. Melintescu**, “Environmental modelling for tritium safety”, National Workshop on Tritium Management “International and National Experience and Lessons Learned Related to Designing and Operation of Tritium Removal Facility”, June 6-8, 2012, Rm-Valcea, Romania (see <http://www.icsi.ro/workshop2012.pdf>)

16. **A. Melintescu, D. Galeriu**, “Open problems in OBT modelling in crops”, 1<sup>st</sup> Workshop on OBT (Organically Bound Tritium) and its analysis, Balaruc les Bains, France, 21-24 May 2012 (see [http://www.obt2012.com/?page\\_id=10](http://www.obt2012.com/?page_id=10)), available at: [http://www.wdcbo.com/1205\\_OBT/120523\\_0930.pdf](http://www.wdcbo.com/1205_OBT/120523_0930.pdf)

17. **D. Galeriu, A. Melintescu**, “Briefing of experimental knowledge of OBT in plants”, 1<sup>st</sup> Workshop on OBT (Organically Bound Tritium) and its analysis, Balaruc les Bains, France, 21-24 May 2012 (see [http://www.obt2012.com/?page\\_id=10](http://www.obt2012.com/?page_id=10)), available at: [http://www.wdcbo.com/1205\\_OBT/120523\\_1000.pdf](http://www.wdcbo.com/1205_OBT/120523_1000.pdf)

18. **Melintescu, A., Galeriu, D.**, Uncertainty of OBT models. 4<sup>th</sup> Organically Bound Tritium (OBT) Workshop, August 31 – September 2, 2015, Bucharest, Romania.

19. **Galeriu, D., Melintescu, A.**, Night production of OBT in crops – a hypothesis. 4<sup>th</sup> Organically Bound Tritium (OBT) Workshop, August 31 – September 2, 2015, Bucharest, Romania.

## Books

1. M. Atarashi-Andoh, V. Berkovskyy, P. Cortes, P. Davis, J. Duran, **D. Galeriu**, P. Guetat, S.B. Kim, V. Korolevych, F. Lamego Simões Filho, S. Le Dizès, **A. Melintescu**, H. Nagai, M. Ota, L. Patryl, S.-R. Peterson, F. Siclet, S. Strack, TRANSFER OF TRITIUM IN THE ENVIRONMENT AFTER ACCIDENTAL RELEASES FROM NUCLEAR FACILITIES, Report of Working Group 7 of the IAEA’s Environmental Modelling for Radiation Safety (EMRAS II) Programme, IAEA-TECDOC-1738, International Atomic Energy Agency Vienna, ISBN 978-92-0-102814-3, ISSN 1011-4289, 2014, 264 pages, available at [http://www-pub.iaea.org/MTCD/Publications/PDF/TE-1738\\_web.pdf](http://www-pub.iaea.org/MTCD/Publications/PDF/TE-1738_web.pdf).

2. P. Anderson, C.L. Barnett, N.A. Beresford, A. Bollhöfer, C. Bradshaw, J. Brittain, J.E. Brown, Y.-H. Choi, D. Copplestone, E. Dagher, P. Dale, C. Doering, S. Dragovic, P. Ernst, E. Fesenko, S. Fesenko, S. Gaschak, K. Higley, A. Hosseini, B.J. Howard, R. Jeffree, M. Johansen, D.-K. Keum, P. Macdonald, A. Maksimenko, **A.-M. Melintescu**, S. Mihok, H. Mulye, A. Muzalevskaya, L. Newsome, G. Olyslaegers, I. Outola, M. Phaneuf, G. Pröhl, J. Ryan, M. Shishulina, L. Sweeck, K. Tagami, D. Telleria, K. Thiessen, J. Twining, S. Uchida, H. Vandenhove, A. Vlaschenko, J. Wannijn, C. Wells, N. Willey, R. Wilson, M.D. Wood, T. Yankovich, HANDBOOK OF PARAMETER VALUES FOR THE PREDICTION OF RADIONUCLIDE TRANSFER TO WILDLIFE, Technical Report Series no. 479, International Atomic Energy Agency Vienna, ISBN 978-92-0-100714-8, ISSN 0074-1914,

2014, 211 pages, available at [http://www-pub.iaea.org/MTCDD/Publications/PDF/Trs479\\_web.pdf](http://www-pub.iaea.org/MTCDD/Publications/PDF/Trs479_web.pdf).

3. J. Aign, T. Al-Khayat, M. Al-Masri, V. Amado, H. Amano, M. Ammann, K.G. Andersson, G. Angeli, G. Arapis, A. Arkhipov, D. Atanassov, M. Atarashi-Andoh, M. Balonov, C.L. Barnett, I. Barraclough, H. Barros, M. Bartusková, B. Batandjieva, F. Baumgärtner, K. Beaugelin-Seiller, M. Belli, Y. Belot, I. Benovich, N.A. Beresford, V. Berkovskyy, B. Birky, P. Bossew, C. Boyer, P. Boyer, M. Brennwald, J.E. Brittain, J.E. Brown, P. Calmon, D. Cancio, A. Canoba, F. Carini, T.W. Charnock, J-J. Cheng, Y. Choi, P. Ciffroy, C. Colle, S. Conney, D. Copplestone, D. Cutts, P. Davis, M. Doi, C. Dovlete, C. Duffa, G. Durrieu, N. Dzyuba, S. Ehlken, S. Fesenko, V. Filistovic, **D. Galeriu**, F. Gally, L. Garcia-Sanchez, R. García-Tenorio, J-M. Garnier, S. Gaschak, K. Gehrcke, J. Gerler, M.H. Gerzabek, C.J. Gil-García, V. Golikov, O. Golovan, A. Golubev, V. Golubeva, A. Gondin da Fonseca, N. Goutal, P. Guetat, W. Gulden, L. Håkanson, F. Harris, R. Heling, J. Hilton, J.L. Hingston, D. Hofman, T. Homma, J. Horyna, A. Hosseini, B.J. Howard, A. Hubmer, W.T. Hwang, J. Inaba, Y. Inoue, K. Ioannides, N. Isamov, K. Ivanova, D. Jackson, J. James, F. Jourdain, L. Jova Sed, Ayub J. Juri, J.C. Kaiser, H. Kakiuchi, S. Kamboj, B. Kanyár, V. Kashparov, I. Kawaguchi, P. Kennedy, G. Kirchner, S. Kivva, J. Koarashi, A. Konoplev, V. Koshebutsky, V. Koukoulidou, J. Kozar Lagar, P. Krajewski, V. Krasnov, M. Krizman, A. Krylov, A. Kryshev, I. Kryshev, G. Laptev, E. Leclerc, S. LeDizès-Maurel, C. Lee, H. Lee, H. Lettner, G. Linsley, D. Louvat, M. Luck, V. Maderich, C. Madoz-Escande, L. Magro, I. Malátová, P. Marks, P. Martin, T. Masuda, S. Mavrin, P. McDonald, **A. Melintescu**, K. Miyamoto, N. Momoshima, L. Monte, M. Montfort, T. Nedveckaite, F. Neves, O. Nietzsche, A. Nosov, C. Nuccetelli, R. O'Brien, G. Olyslaegers, C. Organo, O. Orlov, M. Paganini Fioratti, S.E. Palsson, L. Patryl, R. Periañez, D. Pérez-Sánchez, S.R. Peterson, G. Pröhl, E. Quintana, A. Rantavaara, W. Raskob, P.M. Ravi, E. Reed, A. Rigol, K. Rudya, M. Saito, K. Sanina, U. Sansone, P. Santucci, N. Sanzharova, R. Saxén, T. Sazykina, A. Servant-Perrier, L. Setlow, Z.R. Shang, G. Shaw, O. Shubina, F. Siclet, S. Simon, S. Sitnikov, V.P. Sizonenko, L. Skuterud, O. Slávik, K. Smith, J.T. Smith, M. Steiner, F. Strebl, K.-S. Suh, V. Suolanan, L. Sweeck, K. Tagami, H. Takeda, C. Tamponnet, D. Telleria, K.M. Thiessen, Y. Thiry, M. Thorne, J. Tomás Zerquera, G. Torri, D. Treebushny, D. Trifunovic, L. Tsatsi, S. Uchida, H. Vandenhove, B. Varga, H. Velasco, A. Venter, L. Vichot, M. Vidal, J. Vives i Batlle, S. Vives-Lynch, O. Vlasov, G. Voigt, P. Waggitt, D. Webbe-Wood, B. Wierczinski, M.D. Wood, K. Yamamoto, T. Yankovich, C.Yu, T. Zeevaert, L. Zeiller, R. Zelmer, M. Zheleznyak, G. Zibold, B. Zlobenko, I. Zvonova, ENVIRONMENTAL MODELLING FOR RADIATION SAFETY (EMRAS) - A SUMMARY REPORT OF THE RESULTS OF THE EMRAS PROGRAMME (2003-2007) - IAEA-TECDOC-1678, International Atomic Energy Agency, ISBN 978-92-0-129810-2, 2012, 50 pages, available at [http://www-pub.iaea.org/MTCDD/Publications/PDF/TE\\_1678\\_Web.pdf](http://www-pub.iaea.org/MTCDD/Publications/PDF/TE_1678_Web.pdf)

### Chapters in books

1. P. Davis, **D. Galeriu** (2012) TRITIUM IN THE ENVIRONMENT, In: ENCYCLOPEDIA OF SUSTAINABILITY SCIENCE AND TECHNOLOGY, Editor-in chief: Meyers, Robert A., vol.: ENVIRONMENTAL RADIOACTIVITY AND ECOTOXICOLOGY OF RADIOACTIVE SUBSTANCES, Editor: Glen Bird, Springer, ISBN 978-0-387-89469-0, ISBN 978-1-4419-0851-3 (eBook), ISBN 978-1-4419-0852-0 (print and electronic bundle).
2. **A. Melintescu, D. Galeriu**, H. Takeda, "Reassessment of Tritium Dose Coefficients" (pp. 615-621) in SURVIVAL AND SUSTAINABILITY – Environmental Concerns in the 21st Century, Part V – Environment and Health, Edited by Hüseyin Gökçekus, Umut Türker and James W. LaMoreaux, 1st Edition, 2011, Springer-Verlag, Berlin-Heidelberg, Germany, ISBN 978-3-540-95990-8, 1514 pages