

SAMOFAR Publications / Dissemination activities

(updated 26.09.2018)

Scientific publications – directly related to SAMOFAR

Journal papers

1. Cervi, E., Lorenzi, S., Cammi, A., Luzzi, L., 2018. Development of a multiphysics model for the study of fuel compressibility effects in the Molten Salt Fast Reactor. In press: Chemical Engineering Science, eISSN 0009-2509, DOI: <https://doi.org/10.1016/j.ces.2018.09.025> – Gold Open Access
2. De Oliveira, R, Analytical solutions to a coupled fluid dynamics and neutron transport problem with application to GeN-Foam verification, Annals of Nuclear Energy, 121 (Nov 2018) 446-651. <https://doi.org/10.1016/j.anucene.2018.07.036>
3. Durán-Klie, Gabriela, Davide Rodrigues, Sylvie Delpech, “Dynamic Reference Electrode development for redox potential measurements in fluoride molten salt at high temperature”, Electrochimica Acta, 2016, Vol 195, pp. 19-26, eISSN 0013-4668, DOI: <http://dx.doi.org/10.1016/j.electacta.2016.02.042>
4. Laureau, A., D. Heuer, E. Merle-Lucotte, P. Rubiolo, M. Allibert, M. Aufiero, “Transient coupled calculations of the Molten Salt Fast Reactor using the Transient Fission Matrix approach”, Nuclear Engineering and Design, 316, (2017) 112–124 <https://doi.org/10.1016/j.nucengdes.2017.02.022>
5. Massone, Mattia, Fabrizio Gabrielli, Andrei Rineiski, A genetic algorithm for multigroup energy structure search, Annals of Nuclear Energy 105 (2017) 369–387, <https://doi.org/10.1016/j.anucene.2017.03.022>
6. Rodrigues, Davide, Gabriela Durán-Klie, Sylvie Delpech, “Pyrochemical reprocessing of Molten Salt Fast Reactor fuel: focus on the reductive extraction step”, Nukleonika, 2015, Vol 60 (4), pp 907-914, DOI: <https://doi.org/10.1515/nuka-2015-0153> - Gold Open Access
7. Rubiolo, P.R., M. Tano Retamales, V. Ghetta and J. Giraud, “High temperature thermal hydraulics modeling of a molten salt: application to a molten salt fast reactor (MSFR)” ESAIM: Proceedings and Surveys, 2017, Vol 58, p98-117, Publisher: EDP Sciences, eISSN: 2267-3059, <https://doi.org/10.1051/proc/201758098>– Gold Open Access
8. Souček, Pavel, Ondřej Beneš, Benoit Claux, Elisa Capelli, Michel Ougier, Václav Tyrpekl, Jean-Francois Vigier, Rudy J.M. Konings, Synthesis of UF₄ and ThF₄ by HF gas fluorination and re-determination of the UF₄ melting point, Journal of Fluorine Chemistry, Volume 200, August 2017, 33-40. <https://doi.org/10.1016/j.jfluchem.2017.05.011> - Gold Open Access
9. Tano, Mauricio, Pablo Rubiolo, Olivier Doche ; Progress in modeling solidification in molten salt coolants; Modelling and Simulation in Materials Science and Engineering, vol 25, no. 7 (2017) <https://doi.org/10.1088/1361-651X/aa8345>
10. Tosolin, A., Souček, A., Beneš, O., Vigier, J.-F., Luzzi, L., Konings, R.J.M., Synthesis of plutonium trifluoride by hydro-fluorination and novel thermodynamic data for the PuF₃-LiF system, J. Nucl. Mat. 503 (2018) 171–177, eISSN: 0022-3115, DOI: <https://doi.org/10.1016/j.jnuclmat.2018.02.037> – Gold Open Access
11. Tosolin, A., Beneš, O., Colle, J.-Y., Souček, P., Luzzi L., Konings, R.J.M., Vaporization behaviour of the Molten Salt Fast Reactor fuel: The LiF-ThF₄-UF₄ system, J. Nucl. Mat. 508 (2018) 319-328, eISSN: 0022-3115, DOI: <https://doi.org/10.1016/j.jnuclmat.2018.05.049> – Gold Open Access

SUBMITTED

12. Gerardin, D.; Ugenti, A.C.; Beils, S.; Carpignano, A.; Dulla, S.; Merle, E.; Heuer, D.; Laureau, A.; Allibert, M., Identification of the Postulated Initiating Events with MLD and FFMEA for the Molten Salt Fast Reactor, Nuclear Engineering and Technology, 2018
13. Sergii Nichenko, Xiancai Lu, Bjoern Winkler, Dmitrii Kulik, Xin Liu, Victor Vinograd, Emulation of short-range ordering within the Compound Energy Formalism: Application to the calcite-magnesite solid solution, Calphad journal. (submitted)

Conference papers/oral presentations/posters

1. Bajpai, P., A. Cammi, S. Lorenzi, C. Intorini, A Multiphysics Model for Analysis of Inert Gas Bubbles in Molten Salt Fast Reactor – Part 1: Numerical Modelling, Oral presentation at the 27th International Conference Nuclear Energy for New Europe, Nuclear Society of Slovenia, Ljubljana, 2018
2. Bajpai, P., A. Cammi, S. Lorenzi, C. Intorini, A Multiphysics Model for Analysis of Inert Gas Bubbles in Molten Salt Fast Reactor – Part 2: Application and Results, Poster, 27th International Conference Nuclear Energy for New Europe, Nuclear Society of Slovenia, Ljubljana, 2018 – **Best poster prize**
3. Carpignano, A., S. Dulla, A.C. Ugenti, Safety assessment: perspectives for next generation nuclear plants, Proceedings of the international conference ESREL, Trondheim, Norway, 2018
4. Cervi, E., Lorenzi, Cammi, A., Luzzi, L., 2017. An Euler-Euler Multiphysics Solver for the Evaluation of the Gas Bubbling in the MSFR. In Proceeding of the 26th International Conference Nuclear Energy for New Europe (NENE), Bled, Slovenia, September 11-14, 2017.
5. Cervi, E., Lorenzi, S., Cammi, A., Luzzi, L., 2018. Analysis of the Effect of the Fuel Compressibility on the Molten Salt Fast Reactor Dynamics. In Proceedings of the Physics of Reactors conference (PHYSOR), Cancun, Mexico, April 22 - 26, 2018, pp 3485-3496
6. Cervi, E., Lorenzi, S., Luzzi, L., Cammi, A., 2018. Analysis of the Void Reactivity Effect in the Molten Salt Fast Reactor: Impact of the Helium Bubbling System. Oral presentation at PHYTRA4 – The Fourth International Conference on Physics and Technology of Reactors and Applications, Marrakech, Morocco, September 17-19, 2018, pp. 436-474
7. Di Lecce, F., A. Cammi, , S. Dulla, C. Fiorina, S. Lorenzi, P. Ravetto, CFD-based Correlation for Forced Convection Heat Transfer in Circular Ducts of Internally Heated Molten Salts, International Conference on Nuclear Engineering, ASME, New York, 2018
8. Duran-Klie Gabriela, Rodrigues Davide, Delpech Sylvie ; Electrochemical behavior of U(IV) in LiF-ThF4 molten salt; oral presentation at Atalante 2016, juin 2016, Montpellier, France,
9. Duran-Klie, G., D. Rodrigues and S. Delpech, Development and Evaluation of a dynamic reference electrode for the redox potential measurements in fluoride molten salts, poster presented at the 15th Int. Conf. on High Temperature Materials Chemistry (HTMC15), March 29 – April 1, 2016, Orléans, France
10. Duran-Klie Gabriela, Rodrigues Davide, Delpech Sylvie; Etude électrochimique du couple redox U(IV)-U(III) dans un mélange fondu de LiF-ThF4; XVe journées Nationales de Radiochimie et de Chimie Nucléaire, septembre 2016, Nice, France
11. Gabriela Duran-klie, Davide Rodrigues, Sylvie Delpech ; Comportement électrochimique de l'iode dans l'eutectique LiF-ThF4 fondu à 650°C, Journées d'Electrochimie, Bordeaux, juin 2017
12. Escobedo, Orlando Castilleja, Francisco J. Cano, Ana R. Salazar Román, Eddie López-Honorato, "Development of YSZ environmental barrier coatings for the molten salt fast reactor", oral presentation at the Materials Research Society Spring Meeting, 2-6 April 2018, Phoenix, Arizona, USA
13. Gérardin, D., M. Allibert, D. Heuer, A. Laureau, E. Merle-Lucotte, C. Seuvre, "Design Evolutions of the Molten Salt Fast Reactor", Proceedings of the International Conference on Fast Reactors and Related Fuel Cycles: Next Generation Nuclear Systems for Sustainable Development (FR17), Yekaterinburg, Russian Federation (2017)
14. Gérardin, D. M. Allibert, D. Heuer, A. Laureau, J.Martinet, E.Merle, Identification and study of incidental and accidental scenarios for the molten salt fast reactor, Proceedings of the Fourth International Conference on Physics and Technology of Reactors and Applications, Marrakech, Marocco, September 17-19, 2018, pp 419-430
15. Heuer, D., A. Laureau, E. Merle-Lucotte, M. Allibert, D. Gerardin, "A starting procedure for the MSFR: approach to criticality and incident analysis", Proceedings of the ICAPP'2017 International Conference, Kyoto, Japon (2017)
16. Hombourger, B., J. Krepel, K. Mikityuk, A. Pautz, 2017. On the Feasibility of Breed-and-Burn Fuel Cycles in Molten Salt Reactors, in: Proceedings of FR17. Presented at the 2017 International Fast Reactors Conference, International Atomic Energy Agency, Yekaterinburg, Russian Federation.
17. Krepel, J., B. Hombourger, E. Losa, 2018. Fuel cycle sustainability of molten salt reactor concepts in comparison with other selected reactors, Proceedings of the Fourth International Conference on Physics and Technology of Reactors and Applications, Marrakech, Marocco, September 17-19, 2018, pp 431-444

18. Massone, M., S. Wang, A. Rineiski, P. Servell; Analytical modeling of the emergency draining tank for a molten salt reactor; Proceedings of the Fourth International Conference on Physics and Technology of Reactors and Applications, Marrakech, Morocco, September 17-19, 2018, pp 475-486
19. Mastromarino, S., M. Rohde, O. Benes, J.L. Kloosterman, Development of a high temperature ultrasonic viscometer for molten salt, Oral presentation at NuFuel 2017, Lecco, Italy, September 4 - 6, 2017.
20. Mastromarino, S., M. Rohde, O. Benes, J.L. Kloosterman, Molten fuel salt interaction with water, Poster at NuFuel 2017, Lecco, Italy, September 4 - 6, 2017.
21. Nichenko, Sergii, "Thermodynamic Modelling of Molybdenum Behaviour in Chloride Molten Salt", TopFuel 2015 Conference, Zurich, 13-17 September 2015.
22. Rubiolo, P.R., M. Tano Retamales, J. Giraud, V. Ghetta, "Overview of the Salt at WALL Thermal ExCHanges (SWATH) Experiment", Transactions of the American Nuclear Society, Vol. 115, Las Vegas, NV, November 6–10, 2016, pp 1705-1708, American Nuclear Society, Illinois, 2016.
23. Rubiolo, P.R., M. Tano Retamales, J. Giraud and V. Ghetta, "Overview of the Salt at Wall Thermal ExCHanges (SWATH) Experiment", Transactions of the American Nuclear Society, Vol. 115, Las Vegas, NV, November 6–10, 2016
24. Souček, Pavel, Ondřej Beneš, Alberto Tosolin, Rudy Konings, Chemistry of Molten Salt Reactor Fuel Salt Candidates, In press: Transactions of the American Nuclear Society, ANS Annual Meeting June 17-21, 2018, Philadelphia PA, USA
25. Souček, Pavel, Václav Tyrpekl, Jean-François Vigier, Ondřej Beneš, Elisa Capelli, Philippe Raison, Synthesis and characterisation of actinide fluorides for studies on Molten Salt Reactor fuel cycle, Actinide and Fission Product Partitioning and Transmutation, Workshop Proceedings of the 14th Information Exchange Meeting, OECD/NEA, 17-20 October 2016, San Diego, CA, USA
26. Tano-Retamales, M., P. Rubiolo, O. Doche, "Development of Data-Driven Turbulence Models in OpenFOAM Application to liquid fuel nuclear reactors", In press: proceedings of the 11th OpenFOAM Workshop, Guimarães, Portugal, June 26th-30th, 2016.
27. Tiberga, M., D. Shafer, D. Lathouwers, J.L. Kloosterman, Preliminary assessment of the free-plug melting behavior in the molten salt fast reactor, Proceedings of the Fourth International Conference on Physics and Technology of Reactors and Applications, Marrakech, Morocco, September 17-19, 2018, pp 487-496
28. Tosolin, Alberto, "Molten Salt Reactor: Experimental approach and modelling of safety-related properties of the fluoride fuel", In: Book of abstracts Energy & Material Research (EMR) Conference, Lisbon, Portugal, April 5 – 7, 2017, p. 114
29. Tosolin, Alberto "Experimental investigation of thermo-physical properties of the nuclear fluoride fuel: Approach, challenges and solutions, Oral presentation at NuFuel 2017, Lecco, Italy, September 4 - 6, 2017.
30. Ugenti, A.C., D. Gérardin, A. Carpignano, S. Dulla, E. Merle, D. Heuer, A. Laureau, M. Allibert, "Preliminary Functional Safety Assessment for Molten Salt Fast Reactors in the framework of the SAMOFAR project", Proceedings of the 2017 International Topical Meeting on Probabilistic Safety Assessment and Analysis (PSA 2017), Pittsburg, USA (2017)
31. Wang, Shisheng, Mattia Massone, Andrei Rineiski and E. Merle-Lucotte, Analytical Investigation of the Draining System for a Molten Salt Fast Reactor, paper no. N11A0341 presented at The 11th International Topical Meeting on Nuclear Reactor Thermal Hydraulics, Operation and Safety (NUTHOS-11), Gyeongju, Korea, October 9-13, 2016, 11 p. ([PDF](#))
32. Wang, S., M. Massone, A. Rineiski, E. Merle-Lucotte, et al., A passive decay heat removal system for emergency draining tanks of molten salt reactors, The 17th International Topical Meeting on Nuclear Reactor Thermal Hydraulics (NURETH-17), Xi'an, China, September 3 - 8, 2017

SUBMITTED

33. S. Mastromarino, M. Rohde, O. Benes, J.L. Kloosterman, Development Of A High Temperature Ultrasonic Viscometer For Molten Salt; Poster at the NuMat conference, 14–18 October 2018, Seattle, USA
34. S. Mastromarino, E. Capelli, A.L. Smith, O. Benes, J.L. Kloosterman, Molten Fuel Salt Interaction With Water; Oral presentation at the NuMat conference, 14–18 October 2018, Seattle, USA

Scientific publications – indirectly related to SAMOFAR

1. Cammi, A., M.T. Cauzzi, L. Luzzi, A. Pini, "DYNASTY: An Experimental Loop for the Study of Natural Circulation with Internally Heated Fluids", Proceedings of the 12th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT 2016), Malaga, Spain, July 11-13, 2016, 12, pp 1159-1164, ISBN 978-1-77592-124-0, <https://www.researchgate.net/publication/305406086>
2. Cammi, A., L. Luzzi, A. Pini, "The influence of the wall thermal inertia over a single-phase natural convection loop with internally heated fluids", Chemical Engineering Science, 2016, 153, pp.411-433, eISSN 0009-2509, DOI 10.1016/j.ces.2016.06.060, DOI: <http://dx.doi.org/10.1016/j.ces.2016.06.060>
3. Cammi, A., M. Misale, F. Devia, M. T. Cauzzi, A. Pini, F. Fanale, L. Luzzi, "Stability analysis by means of information entropy: Assessment of a novel method against natural circulation experimental data", Chemical Engineering Science, 2017, 166, pp 220-234, eISSN 0009-2509, DOI: <http://dx.doi.org/10.1016/j.ces.2017.03.036>
4. Carpignano, Andrea, Tonio Pinna, Laura Savoldi, Giulia Sobrero, Anna Chiara Uggenti, Roberto Zanino, "Safety Issues related to the Intermediate Heat Storage for the EU DEMO", Fusion Engineering and Design, 2016, vol. 109-111, part A, pp. 135-140, eISSN 0920-3796, Elsevier, DOI: <http://dx.doi.org/10.1016/j.fusengdes.2016.01.078>
5. A. Carpignano, S. Dulla, A.C. Uggenti, Safety assessment: perspectives for next generation nuclear plants, International conference ESREL, Trondheim, Norway, June 2018.
6. Luzzi, L., M. Misale, F. Devia, A. Pini, M. T. Cauzzi, F. Fanale, A. Cammi, "Assessment of analytical and numerical models on experimental data for the study of single-phase natural circulation dynamics in a vertical loop", Chemical Engineering Science, 2017, 162, pp 262-283, eISSN 0009-2509, DOI: <http://dx.doi.org/10.1016/j.ces.2016.12.058>
7. Luzzi, L., A. Cammi, V. Di Marcello, A. Pini, "Thermal hydraulics of liquid-fueled MSR". In: T.J. Dolan (Ed.), Molten Salt Reactors and Thorium Energy, chap. 6, pp. 167-187, Woodhead Publishing Series in Energy, Elsevier Ltd., Cambridge, MA, United States, 2017 (ISBN: 978-0-08-101126-3)
8. Luzzi, L. A. Cammi, "Worldwide activities". In: T.J. Dolan (Ed.), Molten Salt Reactors and Thorium Energy, chap. 26, pp. 635-774, Woodhead Publishing Series in Energy, Elsevier Ltd., Cambridge, MA, United States, 2017 (ISBN: 978-0-08-101126-3)
9. Pini, A., A. Cammi, L. Luzzi, "Analytical and numerical investigation of the heat exchange effect on the dynamic behaviour of natural circulation with internally heated fluids", Chemical Engineering Science, 2016, 145, pp. 108-125, eISSN 0009-2509, DOI: <http://dx.doi.org/10.1016/j.ces.2016.01.014>
10. Pini, A., A. Cammi, M. Cauzzi, F. Fanale, L. Luzzi, "An Experimental Facility to Investigate the Natural Circulation Dynamics in Presence of Distributed Heat Sources", Energy Procedia, (2016) 101, pp 10-17, eISSN 1876-6102, DOI: 10.1016/j.egypro.2016.11.002, DOI: <http://dx.doi.org/10.1016/j.egypro.2016.11.002>
11. Pinna, T.; Carloni, D.; Carpignano, A.; Ciattaglia, S.; Johnston, J; Porfiri, M.T.; Savoldi, L.; Sobrero, G.; Taylor, N.; Uggenti, A.C.; Vaisnoras, M.; Zanino, R., "Identification of accident sequences for the DEMO plant", Fusion Engineering and Design (2017), 124, 1277-1280, DOI: <http://dx.doi.org/10.1016/j.fusengdes.2017.02.026>
12. Rineiski, A., V.Sinitsa, C4P - train neutronics tool for supporting safety studies of innovative fast reactors, Proc. Int. Conf. PHYTRA4, Marrakech, Morocco, 17-19 Sept., 2018

PhD theses

1. Duran-Klie Gabriela, Étude du comportement de l'uranium et de l'iode dans le mélange de fluorures fondus LiF-ThF₄ à 650 °C, PhD thesis, CRNS, Paris, Saclay, 2017
2. Massone; Mattia, Cross-Sections for Transient Analyses: Development of a Genetic Algorithm for the Energy Meshing, PhD thesis, KIT Karlsruhe, 2018 – [Green Open Access](#)
3. Pini, Alessandro, "Analytical and Numerical Investigation of Single-Phase Natural Circulation Dynamics in presence of Distributed Heat Sources", PhD thesis, Politecnico di Milano, 2017.

BSc / MSc theses

1. Bakker, Jelle, Wall-Distance Calculation for Turbulence Modelling, BSc thesis, TU Delft July 2018
2. Boed, Gijs de, Extraction of noble metals in a Molten Salt Reactor by helium bubbling, BSc thesis, TU Delft, August 2018

3. Braskamp, Laurens, Thermochemistry of Ruthenium in Molten Fluoride Salts, Metal or Melt?, BSc thesis, TU Delft, August 2018
4. Accardi, Francesco, "Performance assessment of molten salt reactors fueled with low enrichment uranium", MSc thesis, Politecnico di Torino, 2016
5. Bajpai, Parikshit, "Modelling and Analysis of Inert Gas Bubbles in Molten Salt Fast Reactor", MSc thesis, Politecnico di Milano, 2018.
6. Bao, Jiadong, Development of the model for the multiphysics analysis of Molten Salt Reactor Experiment using GeN-Foam code, 2016, EPFL Lausanne.
7. Daronnat, Marceau, "Etude de la faisabilité d'une extraction passive de la puissance résiduelle du réacteur MSFR", LPSC-IN2P3-CNRS Grenoble, 2018 (L3 level)
8. Deurvorst, Floris, Design of Cooling Fins on the Freeze Plug, BSc thesis, TU Delft, June 2017
9. Di Filippo, Marco, Development of a Dedicated Burnup Tool for Molten Salt Fast Reactor, 2018, EPFL Lausanne.
10. Di Lecce, Francesco, "Neutronic and thermal-hydraulic simulations for Molten Salt Fast Reactor safety assessment", MSc thesis, Politecnico di Torino (project POLY2NUC in collaboration with Politecnico di Milano), 2018.
11. Di Ronco, Andrea, "Preliminary Design, Modelling and Simulation of Intermediate Loop and Energy Conversion System for the Molten Salt Fast Reactor", MSc thesis, Politecnico di Milano, 2017.
12. Dieuaide, Manon, "SAMOFAR Molten Salt Fast Reactor reprocessing unit design", MSc thesis, CEA Saclay, 2018
13. Froeling, Hidde, Causes of Spurious Echoes by Ultrasonic Wave Simulation, BSc thesis, TU Delft, June 2017
14. Henstra, Gijs, Optimising a model of ultrasonic waves propagating in a buffer rod, BSc thesis, TU Delft, December 2017
15. Nijen, David van, Investigation of natural circulation capabilities of the Molten Salt Fast Reactor, BSc thesis, TU Delft, July 2018
16. Kamp, David, Cooling requirements for the freeze plug module, BSc thesis, TU Delft, January 2018
17. Koks, Iris, Melting behaviour of the freeze plug in a molten salt fast reactor, BSc thesis, TU Delft, July 2016
18. Koks, Iris, Melting behaviour of the freeze plug in a molten salt fast reactor, BSc thesis, July 2016 ([PDF](#))
19. Lantzios, Ioannis Molten Salt Fast Reactor: Shift from Burner to Breeder, MSc thesis, February 2016 ([PDF](#))
20. Makkinje, André, Design of a Freeze Plug Grate, BSc thesis, TU Delft, February 2017
21. Montanet, Edouard, "Dimensionnement du réservoir de vidange d'urgence du MSFR", LPSC-IN2P3-CNRS Grenoble, 2017 (L3 level)
22. Oud, Thomas, Elastic wave simulation for buffer rod tapering, BSc thesis, TU Delft, August 2017
23. Oudenaren, Gilliam van, Study of cooling requirements in the fertile blanket and the freeze-plugs of the MSFR, BSc thesis, TU Delft, July 2018
24. Passelaigue, Florian, "Interfaçage du code système LiCore du réacteur MSFR", LPSC-IN2P3-CNRS/CORYS TESS, Grenoble France, 2018 (M1 level)
25. Reuver, Reindert de, Temperature dependence of the attenuation and group velocity of ultrasonic waves in tungsten, BSc thesis, TU Delft, July 2018
26. Pettersen, Eirik Eide, Coupled multi-physics simulations of the Molten Salt Fast Reactor using coarse-mesh thermal-hydraulics and spatial neutronics, MSc thesis, September 2016 ([PDF](#))
27. Pettersen, Eirik Eide, Coupled multi-physics simulations of the MSFR using TRACE-PARCS, 2016, Université Paris-Saclay
28. Pyron, Dimitri D. A., Safety Analysis for the Licensing of Molten Salt Reactors, 2016, EPFL Lausanne
29. Schuringa, Olivier, Density and viscosity calculation using ultrasonic wave propagation, BSc thesis, TU Delft, December 2017
30. Seelen, Jannick, A C++11 Implementation of a Moving Wall in the Lattice Boltzmann Method, TU Delft, December 2016
31. Servell, Paul, from 6th May to 5th August 2018, Grenoble-INP Phelma, Internship at KIT
32. Shafer, Devaja, Design and Melting Behavior of the MSFR Freeze Plug, TU Delft, January 2018
33. Siviero, Alessio, "Model development for studying natural circulation with the DYNASTY facility", MSc thesis, Politecnico di Torino (project POLY2NUC in collaboration with Politecnico di Milano), 2018.
34. Sorby, Brian, "Analyse de sûreté du réacteur à sels fondus MSFR: analyse FFMEA de la couverture fertile et du circuit intermédiaire", LPSC-IN2P3-CNRS Grenoble, 2017 (M1 level)

35. Swaroop, Parth, Design of a Freeze Plug for the Molten Salt Fast Reactor (MSFR), MSc thesis, TU Delft, August 2016 ([PDF](#))
36. Tuyll, Frederique van, A new design for the safety plug in a Molten Salt Fast Reactor, BSc thesis, TU Delft, December 2016
37. Van den Berg, Marc, Viscosity determination using the quasi-Scholte wave, BSc thesis, TU Delft, August 2018.
38. Van den Bergh, Olivier, Melting behaviour of the freeze plug in a molten salt fast reactor, BSc thesis, TU Delft, July 2016 ([PDF](#))
39. Vozarova, Nikoleta, Behaviour of fission products in the molten salt reactor fuel, 2016, ETH Zurich (done at ITU)

Dissemination activities

1. Eradus, Wim (author), Jan Leen Kloosterman (interview), *Veilige energie met thoriumreactor*, Reformatorisch Dagblad, Apr 29, 2015.
2. Kloosterman, Jan Leen and other nuclear society chairmen, CLIMATE: 39 Nuclear Associations Collaborate, Nuclear4Climate, ICAPP, Nice, 3-6 May, 2015, [Press release](#), [Photos](#), [Video](#).
3. Kloosterman, Jan Leen, Pleidooi voor onderzoek naar geheel nieuwe vorm van kernenergie, FluxEnergie.nl, 1 juli (2015).
<http://www.fluxenergie.nl/pleidooi-voor-onderzoek-naar-geheel-nieuwe-vorm-van-kernenergie/>
4. Press release sent to Dutch Physics and Chemical Societies, Publishers of popular magazines and Partners ([PDF](#))
5. Martin, Richard (MIT), Jan Leen Kloosterman (interview), Meltdown-Proof Nuclear Reactors Get a Safety Check in Europe, MIT Technology Review, 4 Sep (2015).
<http://www.technologyreview.com/news/540991/meltdown-proof-nuclear-reactors-get-a-safety-check-in-europe/>
6. David Dalton (NUCNET), Molten Salt Reactor Research Programme Begins In Europe, NUCNET **176**, 7 Sep 2015 ([PDF](#)), <http://www.nucnet.org/all-the-news/More?skip=500> (upon Login)
7. Anne Blair Gold, Jan Leen Kloosterman (interview), Are molten salt nuclear reactors safer and cleaner?, Delta, TU Delft, 22 Sep (2015).
<http://delta.tudelft.nl/article/are-molten-salt-nuclear-reactors-safer-and-cleaner/30442>
8. Roel van der Heijden, Jan Leen Kloosterman (interview), Weg met de meltdown én het plutonium - Kernenergie opnieuw uitvinden, maar dan beter, Kennislink.nl, 2 Okt (2015).
<http://www.kennislink.nl/publicaties/weg-met-de-meltdown-en-het-plutonium>
9. Interview by Jan Leen Kloosterman about Molten Salt Reactors by the Dutch news broadcast 'Een Vandaag', Nov 5, 2015
https://www.youtube.com/watch?v=OW8OZ8P6_1c
10. Jiri Krepel, SAMOFAR – A Paradigm Shift in Reactor Safety with the Molten Salt Fast Reactor, oral presentation at Thorium Energy Conference 2015 (ThEC15), Bhabha Atomic Research Centre, Mumbai, India, Oct 12-15, 2015 ([PDF](#), [Video](#), all speeches web page
<http://www.thec15.thoriumenergyconference.org/>)
11. 'Europe has a Thorium MSR Project – SAMOFAR', News item on IThEO.org, Apr 17 2015
<http://www.itheo.org/articles/europe-has-thorium-msr-project-samofar>
12. Can Europe be the first to build an MSR reactor?, News item on IThEO.org, Nov 25, 2015
<http://www.itheo.org/articles/can-europe-be-first-build-msr-reactor>
13. Thorium seen as nuclear's new frontier, Science Mag, Vol 350 No 6262, Nov 2015, p. 726-727.
<http://science.sciencemag.org/content/350/6262/726.full>
14. Safety Assessment of the Molten Salt Fast Reactor – SAMOFAR, Chapter in Thorium Energy Report, 2015, <http://www.thoriumenergyworld.com/report.html>
15. Het vuur van Thor, Bits&Chips 9, Nov/Dec 2015, p.3 (Opinion; in Dutch) ([PDF](#))
16. De (bijna) vergeten nuclaire optie, Bits&Chips 9, Nov/Dec 2015, p. 36-39 (Theme; in Dutch) ([PDF](#))
17. Marga van Zundert (based on interview with Jan Leen Kloosterman), "Thoriumreactor krijgt nieuwe kans", Chemisch Magazine, 58, January 2016, p.24-27 ([PDF](#))
18. Thorium, een duurzame vorm van kernenergie, Jan Leen Kloosterman interviewed by Dutch NPO Radio 1 'De Morgen', Feb 5, 2016
<http://www.radio1.nl/item/342387-Thorium,%20een%20duurzame%20vorm%20van%20kernenergie.html#>

19. Benes, O. and J.L. Kloosterman, Molten Salt Reactor Workshop 2016 ‘Moving MSRs Forward - The Next Steps’, October 4-5, 2016
20. Jan Leen Kloosterman, “Overview of SAMOFAR project”, Technical Meeting on the Status of Molten Salt Reactor Technology, IAEA, Vienna, Austria, Oct 31 – Nov 3, 2016, https://www.iaea.org/NuclearPower/Downloadable/Meetings/2016/2016-10-31-11-03-NPTDS/07_Jan-Leen_Kloosterman.pdf
21. Elsa Merle, “Concept of the Molten Salt Fast Reactor (MSFR) developed at CNRS in France”, Technical Meeting on the Status of Molten Salt Reactor Technology, IAEA, Vienna, Austria, Oct 31 – Nov 3, 2016, https://www.iaea.org/NuclearPower/Downloadable/Meetings/2016/2016-10-31-11-03-NPTDS/04_MSFR-France_IAEA-TM-MSR2016_EML_v31oct2016.pdf
22. Jiří Křepel, “Molten Salt Reactor Research in Switzerland”, Technical Meeting on the Status of Molten Salt Reactor Technology, IAEA, Vienna, Austria, Oct 31 – Nov 3, 2016, https://www.iaea.org/NuclearPower/Downloadable/Meetings/2016/2016-10-31-11-03-NPTDS/09_Jiri_Krepel.pdf
23. Ondrej Benes, “European activities in the MSR project”, Technical Meeting on the Status of Molten Salt Reactor Technology, IAEA, Vienna, Austria, Oct 31 – Nov 3, 2016, https://www.iaea.org/NuclearPower/Downloadable/Meetings/2016/2016-10-31-11-03-NPTDS/12_Ondrej_Benes_EU_activities_Benes.pdf
24. Stefano Lorenzi, “Modelling and experimental activities on Molten Salt Reactors (MSRs) developed at Politecnico di Milano in Italy”, Technical Meeting on the Status of Molten Salt Reactor Technology, IAEA, Vienna, Austria, Oct 31 – Nov 3, 2016, https://www.iaea.org/NuclearPower/Downloadable/Meetings/2016/2016-10-31-11-03-NPTDS/33_Stefano_Lorenzi.pdf
25. Jiří Křepel and Boris Homburger, “Thorium: Atomkraft version 2.0? Hvad, hvordan, hvor meget / Nuclear version 2.0? What, how and how much”, Presentation at the Teknologiske Netværk Ingeniørforeningen, IDA, 4. Feb. 2016
26. Jiří Křepel and Boris Homburger, poster about MSR at the PSI Open Day, 18 October 2015
27. Gijs Zwartsenberg (based on interview with Jan Leen Kloosterman), SAMOFAR – Why the slow coming of a fast reactor actually speeds up the development of ‘slow’ MSR’s, July 5, 2016, <https://articles.thmsr.nl/samofar-why-the-slow-coming-of-a-fast-reactor-actually-speeds-up-the-development-of-slow-msr-s-e20b32ab3341#.19jycittb>
28. 10 October 2016, PSI web, Current topics from our research, Molten salt reactors – exploring an alternative, Text: Paul Scherrer Institute/Laura Hennemann (Jiri Krepel and Andreas Pautz helping) <https://www.psi.ch/media/molten-salt-reactors-exploring-an-alternative>
29. Jiří Křepel, Thorium, Brennstoff der Zukunft, presentation for visitors group at PSI, PSI Forum, 27 Oct 2016
30. Boris Homburger, “Molten Salt Reactors as Waste Burners”, presentation for the Schweizerische Gesellschaft der Kernfachleute, SGK-Apéro, March 7, 2017, Grand Casino Baden
31. Grenoble MSFR team attended the preview version of “Thorium: the far side of nuclear power” by producer Myriam Tonelotto at Citizen Films made with Arte TV in Lyon the September 10, 2016, where the whole Grenoble MSFR team was invited (<http://www.petit-bulletin.fr/lyon/cinema-article-55256-+Teleactive+au+Com%C5%93dia+en+presence+de+Jerome+Jouvray.html>)
32. Beneficiaries CNRS, JRC, TU Delft contributed to “Thorium: the far side of nuclear power” a video by producer Myriam Tonelotto at Citizen Films made with Arte TV <http://samofar.eu/thorium-the-far-side-of-nuclear-power/>
33. Daniel Heuer, participation in the projection and discussion around the movie organized by the scientific journalist french association in Paris in January 19th (<https://www.ajspi.com/fr/agenda/debat-sur-les-projets-de-reacteurs-nucleaires-a-sels-fondus-de-thorium>)
34. Daniel Heuer attended the official release in Strasbourg, Sept 2016, https://www.facebook.com/clubpresse.strasbourg/videos/1775615569359143/?video_source=pages_finch_thumbnail_video
35. Steve Gilmann (based on interview with Jan Leen Kloosterman), “Supercritical CO₂, Molten Salt could stop a nuclear meltdown before it begins”, HORIZON, The EU Research & Innovation Magazine, 24 February (2017), based on interview with Jan Leen Kloosterman, https://horizon-magazine.eu/article/supercritical-co2-could-stop-nuclear-meltdown-it-begins_en.html

36. Jan Leen Kloosterman, "Is thorium een goed alternatief voor kernenergie?" contribution to book "Hoe zwaar is licht; Meer dan 100 dringende vragen aan de wetenschap", Balans, 2017, ISBN 9789460034435, http://www.janleenkloosterman.nl/hoezwaarischicht_201702.php
37. Stefano Lorenzi, "MSR-related modelling activities at Politecnico di Milano", Multiphysics modelling and simulation of Molten Salt Reactors, UC Berkeley, Berkeley, USA, June 15, 2017, <http://fratoni.nuc.berkeley.edu/MSRMultiphysics/ewExternalFiles/Lorenzi.pdf>
38. Stefano Lorenzi, "MSR-relevant R&D at Politecnico di Milano, Italy", Consultant's Meeting on the Development of the IAEA TECDOC on the Status of Molten Salt Reactor Technology, IAEA, Vienna, Austria September 25 -27, 2017.
39. Karin van der Graaf, Jan Leen Kloosterman, and Samofar work package leaders, SAMOFAR stakeholder bulletin, January (2018). http://samofar.eu/wp-content/uploads/2017/12/SAMOFAR-Stakeholders-Bulletin_January-2018.pdf
40. Diederik Jekel (based on interview with Jan Leen Kloosterman), *De Thorium theorie*, Focus, 29 Maart (2018).
41. Eric van der Walle (based on interview with Jan Leen Kloosterman), *Veiligere kernenergie kan, maar komt het er ook?*, NRC, 6 Jan (2018).
42. Marco Visscher (based on interview with Jan Leen Kloosterman), *Gaat Thorium de wereld redden*, Vrij Nederland, 22 Dec (2017).
43. Tomas van Dijk (based on interview with Jan Leen Kloosterman), *'Cheap nuclear electricity without long-lived radioactive waste*, Delta, 6 Sep (2017).
44. Bert van Dijk (based on interview with Jan Leen Kloosterman)), *Nederlands onderzoek naar kernenergie zonder uranium*, Financieel Dagblad (FD), 31 Aug (2017).
45. Hans van der Lugt (based on interview with Jan Leen Kloosterman), *'Nieuwe kernenergie' hoopt op onderzoeksgeld na formatie*, Energiea, 28 April (2017).
46. Jan Leen Kloosterman, *A Description of the Molten Salt Fast Reactor and the EU SAMOFAR Project*, Arge Dergisi, Toryum, New Nuclear Era, Vol 1 (2017).
47. Steve Gilmann (based on interview with Jan Leen Kloosterman)), *Supercritical CO₂, Molten Salt could stop a nuclear meltdown before it begins*, HORIZON, The EU Research & Innovation Magazine, 24 February (2017).
48. Remco de Boer (based on interview with Jan Leen Kloosterman)), *Gaat groene kernenergie het klimaat redden?*, Het Financieele Dagblad, 19 Nov (2016).

Social media

1. "SAMOFAR (A Paradigm Shift in Nuclear Reactor Safety with the Molten Salt Fast Reactor)" Weblog Eddie Honorato, Apr 2, 2015, <https://eddiehonorato.wordpress.com/2015/04/02/samofar-a-paradigm-shift-in-nuclear-reactor-safety-with-the-molten-salt-fast-reactor/>
2. "SAMOFAR: The way forward to the ultimate safe nuclear reactor", Weblog Eddie Honorato, Oct 5, 2015, <https://eddiehonorato.wordpress.com/2015/10/05/samofar-the-way-forward-to-the-ultimate-safe-nuclear-reactor/>
3. "SAMOFAR kick-off meeting", Weblog Eddie Honorato, Sept 24, 2015, <https://eddiehonorato.wordpress.com/2015/09/24/samofar-kick-off-meeting/>
4. Launch of SAMOFAR Youtube channel, 25 Feb 2017, <https://www.youtube.com/channel/UCd2wCkwQwTaxKgibxWcAg0Q>
5. Etiene Gemehl, "Climate Change", Youtube video, 25 Feb 2017, <https://www.youtube.com/watch?v=m2JcZUW2wiU>
6. Etiene Gemehl, "Nuclear Fission", Youtube video, 25 Feb 2017, <https://www.youtube.com/watch?v=Pr11ijySlqk>
7. Etiene Gemehl, "Nuclear Fuel Cycle", Youtube video, 25 Feb 2017, <https://www.youtube.com/watch?v=9gHbtFGtOiA>
8. Etiene Gemehl, "MSFR and Generation IV", Youtube video, 25 Feb 2017, <https://www.youtube.com/watch?v=MUzVqbn3Png>

Presentations at GIF meetings

1. Benes, Ondrej, "EC-JRC update on MSR activities", Presentation at the GIF SSC-MSR meeting, June 2016, Grenoble, France
2. Ondrej Benes, "MSR contribution to GIF", Presentation at the 23rd GIF SSC-MSR meeting, Jan 2017, Villigen, Switzerland
3. Kloosterman, Jan Leen, "SAMOFAR project", Presentation at the GIF SSC-MSR meeting, June 2016, Grenoble, France
4. Kloosterman, Jan Leen, "The EU SAMOFAR project goals and contents", Presentation at the 23rd GIF SSC-MSR meeting, Jan 2017, Villigen, Switzerland
5. Krepel, Jiri, "Molten Salt Reactors research at PSI", Presentation at the GIF SSC-MSR meeting, June 2016, Grenoble, France
6. Krepel, Jiri, "Molten Salt Reactor Research in Switzerland", Presentation at the 23rd GIF SSC-MSR meeting, Jan 2017, Villigen, Switzerland
7. Merle, Elsa, "Molten Salt Fast Reactor : demonstrator and SMR", Presentation at the GIF SSC-MSR meeting, June 2016, Grenoble, France

Organisation of workshops/conferences

1. GIF MSR workshop, organized by PSI, Villigen, Switzerland, January 24, 2017
2. SAMOFAR summer school, July 2-4, 2017, Lecco (Como Lake), Italy