

2021 Virtual Molten Salt Reactor (MSR) Workshop
Building from a Strong Foundation
Presented Virtually from Oak Ridge National Laboratory (ORNL) via Microsoft Teams
Sponsored by: Gateway for Accelerated Innovation in Nuclear (GAIN) and ORNL

Agenda a of 10/12/2021

Event contact	General Chair: David Holcomb, 865-898-2193 (mobile); holcombde@ornl.gov Technical Chair/Alternate General Chair: Kevin Robb, 814-746-6846 (mobile); robbkr@ornl.gov	
Time	Event	Lead
Tuesday, October 12, 2021 Eastern Daylight Time (UTC-4:00)		
8:45–8:50 am	Call to Order	David Holcomb, ORNL
8:50–9:00 am	Welcome	Kathy McCarthy, ORNL
9:00–10:00 am	Plenary Overviews GAIN US Department of Energy, Office of Nuclear Energy (DOE-NE) MSR Campaign Nuclear Energy Advanced Modeling and Simulation US Nuclear Regulatory Commission (NRC)	Christine King, GAIN Katy Huff, DOE-NE Patricia Paviet, Pacific Northwest National Laboratory (PNNL) Chris Stanek, Los Alamos National Laboratory) Robert Taylor, NRC
10:00–11:30 am	Chemistry Session The Thermophysical Molten Salt Database Salt Properties from Classical and Ab-Initio Molecular Dynamics Overview of the MSR Campaign for Experimental Determination of Molten Salt Properties	Session Chair: Jake McMurray, Kairos Power Dianne Ezell, ORNL Chao Jiang, Idaho National Laboratory (INL) Mel Rose, Argonne National Laboratory (ANL)

Time	Event	Lead
11:30 am–12:00 pm	Lunch Decommissioning Challenges at the Molten Salt Reactor Experiment Site	Eric Abelquist, UCOR Tommy Morgan, UCOR
12:00–1:30 pm	Salt Irradiation Session Molten-Salt Research Temperature-Controlled Irradiation (MRTI) Massachusetts Institute of Technology (MIT) Integrated Research Project Salt Loop Irradiation MIT Advanced Research Projects Agency-Energy Off-gas Analysis North Carolina State University (NCSU) Capsule Irradiation	Session Chair: Dianne Ezell, ORNL Abdalla Abou-Jaoude, INL Charles Forsberg, MIT Gordon Kohse, MIT Ayman Hawari, NCSU
1:30–3:00 pm	Modeling & Simulation Session The Thermochemical Molten Salt Database MELCOR Activities for MSRs Systems Level Simulations of Heat and Mass Transport in MSRs <ul style="list-style-type: none"> ○ Input for Mole ○ Input on Drift Flux Modeling of Bubbles 	Session Chair: Dane De Wet, ORNL Ted Besmann, University of South Carolina David Luxat, Sandia National Laboratories Rui Hu, ANL
3:00–3:45 pm	DOE National Nuclear Security Administration (NNSA) Resources Session Nuclear Nexus Overview International Nuclear Safeguards (ARISE) International Nuclear Security (CNSP) Proliferation Resistance	Session Chair: Karen Hogue, ORNL Jeff Chamberlin, NNSA Anagha Iyengar, NNSA Katherine Holt, NNSA Brian Waud, NNSA

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Time	Event	Lead
3:45 pm	Adjourn Day 1	

Wednesday, October 13, 2021 Eastern Daylight Time (UTC-4:00)

8:25–8:30 am	Call to Order	David Holcomb, ORNL
8:30–10:00 am	Operations and Monitoring Session Off Gas Measurements Off Gas Measurements Molten Salt Loops Surveillance/Test	Session Chair: Hunter Andrews (ORNL) Amanda Lines, PNNL Hunter Andrews, ORNL Kevin Robb, ORNL Sam Sham, INL
10:00 am–11:50 am	Safety & Licensing Session MSR Fuel Salt Qualification Guidance Development International Atomic Energy Agency (IAEA) MSR Safety Evaluation Liquid-Fuel Molten Salt Reactor Design Safety Standard (ANS 20.2) Overview Salt Spill Phenomena Identification and Ranking Table (ORNL)	Session Chair: Alex Huning, ORNL David Holcomb, ORNL Gerardo Martinez-Guridi, IAEA David Holcomb, ORNL Sara Thomas, Argonne National Laboratory (ANL) Alex Huning, ORNL
12:00–12:30 pm	Lunch Thorium Energy Alliance Perspective	John Kutsch, Thorium Energy Alliance

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Time	Event	Lead
12:30–2:00 pm	Developer Forum 1 ThorCon Flibe Energy, Inc. Copenhagen Atomics Natura Resources Alpha Tech Research Corp	Session Chair: Kevin Robb, ORNL Lars Jorgensen, ThorCon Kirk Sorensen, Flibe Energy, Inc. Aslak Stubsgaard, Copenhagen Atomics Tony Hill, Natura Resources Michael Stoddard, Alpha Tech Research Corp
2:00–3:30 pm	Developer Forum 2 Elysium Industries TerraPower Terrestrial Energy USA Kairos Power	Session Chair: Joanna McFarlane, ORNL Carl Perez, Elysium Industries Jeff Latkowski, TerraPower Robin Rickman, Terrestrial Energy USA Brandon Haugh, Kairos Power
3:30–3:40 pm	Closing Remarks	Alison Hahn, DOE-NE
3:40 pm	Adjourn Day 2	