



Join us on June 7, 2018
for the next GEN IV webinar
**MOLTEN SALT ACTINIDE RECYCLER &
TRANSFORMING SYSTEM WITH AND WITHOUT
TH-U SUPPORT: MOSART**

The Molten Salt Reactor designs, where fissile material is dissolved in the molten salt fluorides, under consideration in the frame work of the Generation IV international Forum are briefly described. The presentation mainly focuses on the MOLten Salt Actinide Recycler & Transforming (MOSART) system without and with U-Th support fueled with different compositions of transuranic elements trifluorides from spent LWR fuel. New design options with homogeneous core and fuel salt with high enough solubility for transuranic elements trifluorides are being examined at NRC "Kurchatov Institute" because of new goals. The webinar has the main objective of presenting the fuel cycle flexibility of the MOSART system while accounting technical constrains and experimental data received in this study. A description is given of the experimental results on key physical and chemical properties of fuel salt and combined materials compatibility to satisfy MOSART system requirements. In the webinar the main design choices and characteristics of MOSART concept are explained and discussed including safety, transient simulations, laboratory scale experiments and program plan for the development of the small power Demo MOSART unit.

Free webcast

Thursday 7 June, 2018 at 8:30 am EDT (UTC-4)



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Who should attend: policy makers, managers, regulators, students, general public

Meet the Presenter...

Dr. Victor Ignatiev works at the NRC-"Kurchatov Institute," Moscow, Russia, both as the Head of the Molten Salt Reactor Laboratory (since 2012) and as a Professor (since 2009). He graduated from the Nuclear Power Systems Moscow Physical Engineering Institute, USSR, in 1976, and earned his Ph.D. in 1986 from the Kurchatov Institute of Atomic Energy, Moscow, USSR. His Ph.D. research focused on molten salt reactors. Since 2014, he has been the co-chair of Generation IV International Forum MSR pSSC. In 1985, he received the Kurchatov Award on the Fundamental Studies of Molten Salt Reactors; and in 2016, he received the Kurchatov Award on Engineering studies of Molten Salt Reactors. His research activities mainly focus on Molten Salt Reactor: (1) Th - U fuel cycle and TRU burners, (2) Combined materials compatibility & salt chemistry control in selected molten salt environments at parameters simulating designs operation, (3) Physical & chemical properties for fuel and coolant salt compositions, and (4) Flow sheet optimization, including reactor physics, thermal hydraulics and safety related issues.



The Generation IV International Forum invites you to attend web-based lectures on the next generation of nuclear energy systems and other cross-cutting subjects. Join internationally recognized subject matter experts and leading scientists in the nuclear energy arena for these short presentations.

Upcoming Webinars

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| July 30, 2018 | ASTRID - Lessons Learned, Dr. Frederic Varaine |
| August 22, 2018 | Brest-300 Lead Cool Fast Reactor, Dr. Valery Rachkov |
| September 26, 2018 | Advanced Lead Fast Reactor European Demonstrator – ALFRED Project, Dr. Alessandro Alemberti |

For more information, please contact: Patricia Paviet at patricia.paviet@nuclear.energy.gov or visit the GIF website at www.gen-4.org

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