

Book on Molten Salt Reactors (MSR)

*Organized in cooperation with the
International Thorium Molten Salt Forum
Led by Dr. Ritsuo Yoshioka*

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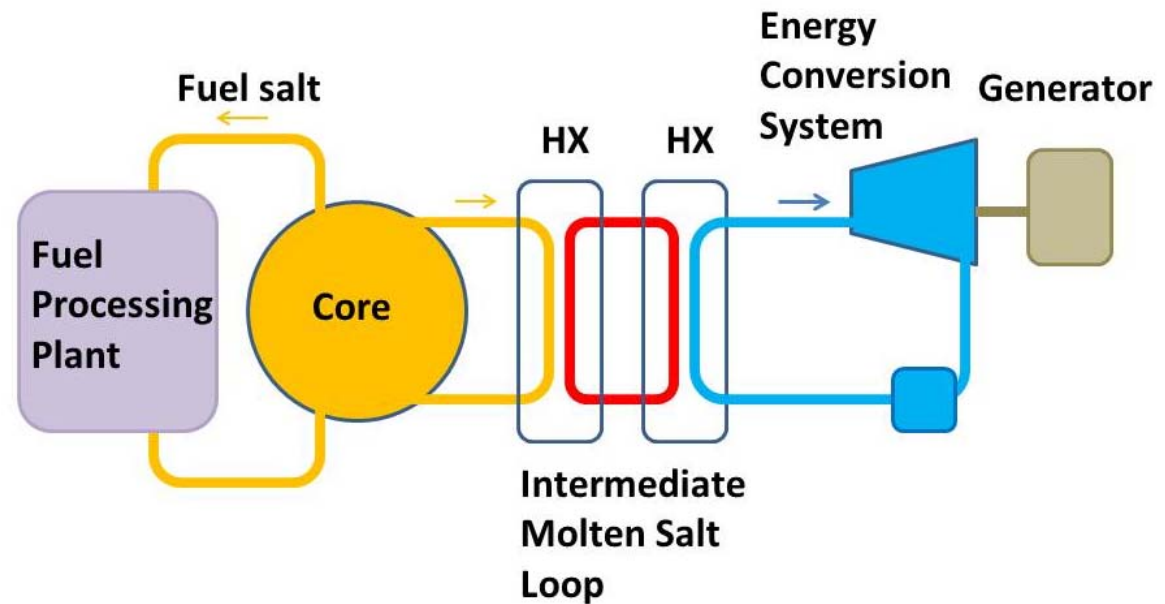
Four parts

Motivation for MSR

Technical Issues

Reactor Designs

Other Issues



Motivation

1. Introduction

Dolan, Ragheb

need for MSR
thorium fuel
liquid fuel reactors
development Issues

2. Electricity Production Economics

electrical power cycles **Open**
combined cycles **Ferguson**

3. Other MSR Applications

Open

actinide incineration
H₂ production
medical isotopes
...

Technical Issues

- | | |
|--|---------------|
| 4. Reactor Physics | Pazsit |
| 5. Thermal Hydraulics of Molten Salt Coolants | Open |
| 6. Structural Materials, Manufacture, Corrosion | Open |
| 7. Chemical Processing of Liquid Fuel | Uhlir |

Reactor Designs

- 8. Liquid fuel, thermal neutron-spectrum reactors Yoshioka, Kinoshita
- 9. Liquid fuel, fast & epithermal neutron spectrum reactors Ponomarev
- 10. Solid fuel salt-cooled reactors Scarlat
- 11. Static liquid fuel reactors Scott
- 12. Dual fluid reactor Huke
- 13. Fusion-fission hybrids Open

Other Issues

14. Environment and Waste

resource utilization

radioactive inventories & disposal

Ragheb

Open

15. Nonproliferation Issues Helleson

Grape and

16. Licensing and Deployment

Open

17. Research Activities

18. Unanswered Questions

17. Research Activities

Australia	Edwards		
Canada	LeBlanc		
Czech	Uhlir		
China	Dai		
Denmark	Open	Netherlands	Kloosterman
France	Open	Russia	Pononmarev
Korea	Lee	South Africa	Open
India	Vijayan	Sweden	Pazsit, Dykin
Italy	Luzzi	Turkey	Erbay
Japan	Yoshioka, Kinoshita	UK	Weinberg Foundation
		Ukraine	Bakai
		USA	Open
		Venezuela	Greaves, Sajo-Bohus

Plan

Book proposal Spring 2015

First drafts Summer

Revisions Fall

Finalizing Winter

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Persuade policy makers

Your suggestions are welcome.

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