

Heavy metal summer school

June 12 - 16, 2023 | SCK CEN, Mol, Belgium

Programme

Day 1 | Monday – June 12, 2023

Moderator morning session: Rafaël Fernandez, SCK CEN, Belgium

09:30 Registration at the SCK CEN Lakehouse		
10:00	Welcome & introduction to SCK CEN and the activities of the SCK CEN Academy	Michèle Coeck SCK CEN, Belgium
10:15	Introduction HLM fast reactor & MYRRHA what and why?	Paul Schuurmans SCK CEN, Belgium
11:00	Q&A	
11:10	Development of MYRRHA	Graham Kennedy SCK CEN, Belgium
11:55	Q&A	
12:05 Lunch		
Moderator afternoon session: Paul Schuurmans, SCK CEN, Belgium		
13:05	ALFRED reference design	Michele Frignani ANSALDO, Italy
13:50	Q&A	
14:00	SMR review	Julio Pacio SCK CEN, Belgium
14:45	Q&A	
14:55 Break		
15:10	Safety of heavy liquid metal reactors and ADS compared	Guy Scheveneels SCK CEN, Belgium
15:55	Q&A	
16:05	Non-nuclear applications of HLM	Thomas Wetzel KIT, Germany
16h50	Q&A	
17:00	Welcome reception @ Lakehouse	
18:30 Closure		

Day 2 | Tuesday – June 13, 2023

Moderator morning session: Serguei Gavrilov, SCK CEN, Belgium

09:00	Introduction to the interactive sessions	Paul Schuurmans SCK CEN, Belgium
09:30	Selection and Qualification of candidate materials for nuclear systems with a HLM coolant	Serguei Gavrilov SCK CEN, Belgium
10:15	Q&A	
10:25	Break	
10:40	Liquid metal corrosion of steels in HLM	Valentyn Tsisar SCK CEN, Belgium
11:25	Q&A	
11:35	Oxygen control and monitoring	Jun Lim SCK CEN, Belgium
12:20	Q&A	
12:30	Lunch	
Moderator afternoon session: Jun Lim, SCK CEN, Belgium		
13:30	HLM purification	Kris Rosseel SCK CEN, Belgium
14:15	Q&A	
14:25	Chemistry of radionuclides in heavy liquid metal cooled nuclear systems	Borja González-Prieto SCK CEN, Belgium
15:10	Q&A	
15:20	Break	
15:35	Fast Reactor Fuel Cycle	Christian Ekberg Chalmers University, Sweden
16:20	Q&A	
16:30	Transfer to Graspop	
17:00	Visit Graspop Metal meeting + Visit to typical Belgian gastronomical establishment	Katrien Van Tichelen & colleagues SCK CEN, Belgium
19:00	Closure	

Day 3 | Wednesday – June 14, 2023

Moderator morning session: Paul Schuurmans, SCK CEN, Belgium

09:00	Interactive session	All participants
10:30	Break	
10:45	Interactive session	All participants
12:30	Lunch Sandwich lunch will be foreseen during interactive session	
13:30	Measuring techniques for experimental investigations and monitoring of liquid metal flows	Julio Pacio SCK CEN, Belgium
14:15	Q&A	
14:30	Transfer to TCH building	SCK Academy collaborator
15:00	Technical visit to HLM facilities	SCK CEN colleagues SCK CEN, Belgium
17:00	Closure	

Day 4 | Thursday – June 15, 2023

Moderator morning session: Katrien Van Tichelen, SCK CEN, Belgium

09:00	HLM fuel assembly and core thermal hydraulics	Ferry Roelofs NRG, The Netherlands
09:45	Q&A	
09:55	Thermal hydraulic phenomena in HLM pools	Katrien Van Tichelen SCK CEN, Belgium
10:40	Q&A	
10:50	Break	
11:05	Neutronics and Zero power experiments in support of heavy metal cooled designs	Antonin Krasa SCK CEN, Belgium
11:50	Q&A	



12:00 Lunch

Moderator afternoon session: Paul Schuurmans, SCK CEN, Belgium

13:00 | Interactive session

All participants

14:00 Break

14:15 | Poster sessions

All participants

17:00 Closure

Day 5 | Friday – June 16, 2023

09:00 | Interactive session

All participants

10:00 | Presentation on outcome of interactive sessions

All participants

11:30 | Ceremony for the 3 best students

Paul Schuurmans
SCK CEN, Belgium

12:00 Closing lunch at the Nuclea sportcafé

14:00 | Graspop Metal Meeting (GMM)