



AGENDA

29th International QUENCH Workshop

Karlsruhe Institute of Technology, Campus North, H.-von-Helmholtz-Platz 1, 76344 Egg.-Leopoldshafen, Germany
19-21 November 2024

Meeting Location: Fortbildungszentrum für Technik und Umwelt (FTU), Auditorium (Aula)

Tuesday, 19 Nov 2024

8:10	Pick-up at the hotel	
8:30	Registration	
9:00	Welcome	W. Tromm/M. Steinbrück, KIT
9:20	Update of the QUENCH Program	M. Steinbrück, KIT
	<u>ATF CLADDING I</u> (Chair: M. Grosse, KIT)	
9:50	Promising ATF cladding materials and their oxidation behavior at (very) high temperature	M. Steinbrück, KIT
10:20	Some illustrations of recent learnings and studies carried out at CEA on the behavior of Cr-coated Zr-based Claddings upon High Temperature Oxidation in relation with their Post-Quenching mechanical properties	J.-C. Brachet, CEA
10:50	Coffee break (Group Photo)	
11:20	Accident Tolerant Fuel: Cr Coated Cladding Development at Westinghouse	K. Frederick, WEC
11:40	Behaviour of Cr-coated cladding bundles under BDBA conditions at the DEGREE facility	K. Nakamura, CRIEPI
12:00	The CODEX-ATF-AIT integral air ingress experiment	R. Farkas, HUN-REN
12:30	Lunch	
	<u>ATF CLADDING II</u> (Chair: S. Weick, KIT)	
13:30	High-temperature single-rod tests on oxidation of Cr coated claddings, performed at KIT in the framework of the IAEA project ATF-TS	J. Stuckert, KIT
14:00	Behaviour of Fuel Cladding with Cr Coating during LOCA and Study of Cr Diffusion into Zr-alloy	A. Endrychova, UJP
14:20	Cr-Nb Coated Zr as a Suitable ATF Candidate for BWRs	M. Sevecek, CTU
14:40	High Temperature Steam Oxidation Tests in the Framework of the SCORPION Project	M. Grosse, KIT
15:10	Coffee break	

15:40	Integral LOCA Experiment to Investigate Comprehensive Accident Behavior of Cr-Coated Accident Tolerant Fuel (ATF)	Y. Lee, SNU
16:10	High temperature creep during LOCA conditions	J. Krejci, UJP
16:30	A Visual Experimental Study on Fuel Cladding Integrity under coolant loss accident (LOCA) conditions.	T. Liu, SJTU
17:00	Bus transfer to the hotel	

Wednesday, 20 Nov 2024

8:30	Pick-up at the hotel	
9:00	ATF-Session contd.: Chromium coating cracking quantification methods: recent developments and results	A. Charbal, CEA
	MODELLING AND CODE APPLICATION - ATF (Chair: E. Rouge, IRSN)	
9:30	Current Activities in PSS Research Projects: AC ² Applications with a Focus on ATF and Reflooding	G. Stahlberg, RUB
9:50	ATF Modelling with AC2	L. Lovasz, GRS
10:10	FeCrAl Oxidation Model Development on the ASTEC Code and Preliminary Validation Against QUENCH Experiments	Z.E. Jiménez Balbuen, KIT
10:30	Coffee break	
11:00	Development and Assessment of ATF cladding materials for DBA and BDBA conditions using SCDAPSIM	C. Allison, ISS
11:30	Results of the QUENCH-ATF-1 Benchmark within OECD/NEA QUENCH-ATF	T. Hollands, GRS
12:00	Lunch	
	MODELLING AND CODE APPLICATION (Chair: T. Hollands, GRS)	
13:30	Development and Assessment of ASYST SCDAPSIM modeling options for Lower Head Failure and Melt Relocation into the Reactor Cavity	C. Allison, ISS
13:50	Integration and Preliminary Validation of a Thermal-Mechanical Fuel Rod Model for ATHLET	V.A. Di Nora, KIT
14:10	Evaluation of a BDBA Quench Sequence in a Generic iPWR with Natural Circulation: Application of the QUENCH-06 Experiment.	M.E. Cazado, KIT
14:30	Coffee break + Time for discussion/lab visits	
16:00	Bus to Hambach for wine tasting and invited dinner	
ca. 22:00	Arrival at KIT and in hotel	

Thursday, 21 Nov 2024

8:30	Pick-up at the hotel	
	<u>LONG-TERM DRY STORAGE – SYSTEM ZR-H</u> (Chair: M. Sevecek, CTU)	
9:00	Conduction and analysis of the long-term SPIZWURZ bundle test	S. Weick, KIT
9:30	GRS Analytical Support to the SPIZWURZ Project	Tbd., GRS
9:50	Hydrogen diffusion and precipitation in nuclear cladding	J. Bertsch, PSI
10:20	Coffee break	
10:50	Hydrogen Quantification in Non-irradiated Zirconium Cladding after Various Oxidation Conditions	O. Yetik, PSI
11:10	Hydrogen diffusion in dependence of the grain size of Zircaloy-4 cladding tubes	S. Weick, KIT
11:30	Hydride orientation in fuel rod cladding: comparison of two competing simulation approaches	M. Kolesnik, KIT
11:50	Closure of the Workshop	M. Steinbrück, KIT
12:00	Lunch	
13:30	Bus for train station and hotel	

14:00 (tbd.) **QUENCH ATF Program Review Group Meeting (PRG)**
FTU (same building), Room 155
Only for QUENCH-ATF PRG Members

Friday

9:00-13:00 **QUENCH ATF PRG & Management Board (MB) Meetings**
FTU, Room 155
Only for QUENCH-ATF MB Members