

Thursday 6th June 2024

Time	Speaker	Organization	Title
09.00-09.05	WELCOME		
“Hydrogen transition”, Session chair: Elina Huttunen-Saarivirta			
09.05-09.30	Director general for energy Riku Huttunen	Ministry of Economic Affairs and Employment of Finland	The Role of Hydrogen in the Finnish Energy and Climate Strategy
09.30-09.55	Development manager, Hydrogen and P2X Jaana Viitakangas	Helen Ltd	Hydrogen transition and Helen’s perspectives
09.55-10.20	Senior officer, Industrial processes Anna Pääkkönen	Finnish Safety and Chemicals Agency	Safety aspects in hydrogen facility siting
10.20-11.10	Professor Yoshinori Sawae	Kyushu University, Japan	Research on Science and Technology for Hydrogen Utilization – Challenge of Kyushu University and HYDROGENIUS
11.10-11.35	Senior scientist Ville Saarinen	VTT	Water Electrolysis for Green Hydrogen Production: Technical Challenges, Materials and Research Activities at VTT
11.35-13.00	LUNCH & POSTERS		
“Hydrogen in industry and transport”, Session chair: Pekka Pohjanne			
13.00-13.25	R&D Manager Jouni Puranen	Elcogen Ltd	High-performance materials in solid oxide technology: A path toward higher efficiency and lower costs
13.25-13.50	Manager, Materials engineering Matias Ahonen	Neste Ltd	Hydrogen effects on process equipment failures
13.50-14.15	Research scientist Sofia Ojasalo	VTT	Power Generation by Ammonia: High Temperature Corrosion of Steels by Nitridation
14.15-14.40	Senior research scientist Vigdis Olden	SINTEF, Norway	Safe pipelines for hydrogen transport
14.40-15.05	Leading advisor, Metallic materials and welding Lars Magne Haldorsen	Equinor, Norway	Development of design criteria for re-purposing of existing natural gas pipelines to hydrogen transport pipelines
15.05-15.30	Post-doctoral researcher Renata Latypova	University of Oulu	The effect of low-temperature tempering on hydrogen diffusion and trapping in direct-quenched martensitic steel
15.30-16.00	COFFEE BREAK		
“Hydrogen tribology”, Session chair: Vilma Ratia-Hanby			
16.00-16.25	Dr. Geraldine Theiler	BAM, Germany	Overview of tribology in gaseous hydrogen
16.25-16.50	Professor Yoshinori Sawae	Kyushu University, Japan	Polymer tribology in hydrogen utilization
16.50-17.15	Principal scientist Helena Ronkainen	VTT	Influence of ammonia on the lubricant properties and performance
17.15-17.40	Professor Nazanin Emami	Luleå University of Technology, Sweden	Cryogenic tribology
17.40-17.45	<i>Concluding remarks and instructions for the dinner</i>		



Friday 7th June 2024

Time	Speaker	Organization	Title
“Modelling of material-hydrogen interactions”, Session chair: Helena Ronkainen			
09.00-09.25	Research professor Elina Huttunen-Saarivirta	VTT	Fatigue of steels in hydrogen
09.25-09.50	Professor Zhiliang Zhang	NTNU, Norway	A void-based predictive model for hydrogen embrittlement
09.50-10.15	Assistant professor Haiyang Yu	Uppsala University, Sweden	Discrete dislocation dynamics based simulation of the interplay between hydrogen and localized plasticity
10.15-10.40	Lecturer Thomas Hammerschmidt	Ruhr University Bochum, Germany	Atomistic modelling of hydrogen in transition metal alloys
10.40-11.05	Senior scientist Napat Vajragupta	VTT	Multiscale Characterisation and Simulation for Hydrogen Embrittlement Assessment
11.05-11.30	Professor Fluyra Djurabekova	University of Helsinki	Hydrogen effects in copper under ion irradiation condition
11.30-11.55	Professor Emilio Martinez-Paneda (remote)	University of Oxford, UK	Towards a Virtual Hydrogen Lab: electro-chemo-mechanical predictions of hydrogen uptake, transport and embrittlement
11.55-12.00	<i>Concluding remarks</i>		
12.00-13.00	LUNCH		
13.00-13.15	Walk to VTT labs, safety instructions etc.		
13.15-15.00	Lab tours (2*45) + 15 min for change		
15.00	End & good-bye		

