Programm

MPA-Online-Workshop „Hydrogen “, 10. November 2022

09:00	MPA	Welcome
		Session "Hydrogen - Requirements and Solutions"
09:05	MPA	Introduction
09:10	P. Auerkari, Kiwa Inspecta, Vantaa/Tampere, R. Rintamaa, Clenercon Oy, Espoo, S. Tuurna, Kiwa Inspecta, Vantaa/Tampere, Finland	Hydrogen for Energy Challenges: Solutions and Gaps
09:35	S. Zickler, TÜV Süd Industrie Service, Filderstadt, Germany	Hydrogen Testing Systems - Requirements from the Health and Safety Standards’ Perspective
10:00	G. Golisch, G. Genchev, E. Wanzenberg, S. Höhler, J. Mentz, Salzgitter Mannesmann Forschung GmbH, Salzgitter, Germany	Hydrogen and Steel: Requirements, Materials Properties and Testing Technology
10:25		Break
		Session "Materials and Parameter Determination"
10:40	MPA	Introduction
10:45	P. Fayek, K. Bauer-Troßmann, R. Westerheide, Robert Bosch GmbH, Renningen, Germany	MatHyP - Materials Under Hydrogen Pressure
11:10	C. D. Schmidt, H.-J. Christ, A. von Hehl, Institut für Werkstofftechnik, University of Siegen, Germany	Fatigue Properties of Microstructural Gradients in Ti-6Al-4V Generated with Thermohydrogen Treatment
11:35	R. Fauser, Institute for Materials Testing, Materials Science and Strength of Materials (IMWF), University of Stuttgart, B. Kagay, J. Quatier, MPA University of Stuttgart, Germany	Fatigue Behavior of Austenitic and Martensitic Stainless Steels in Hydrogen Environments
12:00		Break
13:00	O. Sobol, F. Konert, J. Nietzke, F. Wieder, D. Meinel, T. Böllinghaus, Bundesanstalt für Materialprüfung und -forschung (BAM), Berlin, Germany	Urgent Material Issues on the Path to the Utilization of Existing Gas Infrastructure for Hydrogen Transport
13:25	C. Cao, ZwickRoell GmbH & Co. KG, Ulm, Germany	Materials Testing in the Hydrogen Industry

13:50	K. M. Schweitzer, Bruker AXS GmbH, Karlsruhe J. Jürgensen, Institute for Materials, Ruhr Universität Bochum, R. Strack, C. Zühlke, Bruker AXS GmbH, Karlsruhe, Germany	Hydrogen Embrittlement and the Analysis of Diffusible Hydrogen via Thermal Desorption Analysis
14:15		Break
		Session "Integrity under Hydrogen"
14:30		Introduction
14:35	S. Faust, I. Fleck, U. Jendrich, Gesellschaft für Anlagen- und Reaktorsicherheit (GRS) gGmbH, Köln, Germany	A Review of the Potential Influence of Hydrogen on the Integrity of Components in Light Water Reactors (LWR)
15:00	C. Günther, U. Marewski, M. Steiner, Open Grid Europe, Essen, H. Silcher, MPA University of Stuttgart, Germany	Conversion of High Pressure Natural Gas Pipelines to Hydrogen
15:25	K. Heckmann, B. Geyer, Gesellschaft für Anlagen- und Reaktorsicherheit (GRS) gGmbh, Köln, Germany	Case Study of Hydrogen-assisted Fatigue Crack Growth in Hydrogen Operated Gas Pipelines with the PROST Tool
15:50	A. G. Varias, Innovation Hub, Public Power Corporation S.A., Pallini, Greece	On the Integrity of Structures under Hydrogen Chemical Equilibrium and Steady-State Heat Conduction
16:15		Break
		Session "Specific Applications"
16:30		Introduction
16:35	C. Metzmacher, Carl Zeiss SMT GmbH, Oberkochen, Germany	Hydrogen Compatibility of Materials Used in EUV Lithgraphy
17:00	M. Rhode, J. Nietzke, O. Sobol, Bundesanstalt für Materialforschung und -prüfung (BAM), Berlin, Germany	Additive Manufacturing of Components in Hydrogen Technologies
17:25	MPA	Closing Words