

**- HYDROGEN-MATERIALS INTERACTIONS -**  
 HYDROGENIUS, I<sup>2</sup>CNER, AND HYDROMATE JOINT RESEARCH SYMPOSIUM 2021  
 HYDROGENIUS FATIGUE AND FRACTURE DIVISION,  
 I<sup>2</sup>CNER ADVANCED ENERGY MATERIALS DIVISION,  
 , & HYDROMATE

< Date and hour > January 28<sup>th</sup>, 21:00—24:00 (Japan time)  
 January 29<sup>th</sup>, 21:00—24:00 (Japan time)  
 < Venue > Online (ZOOM Webiner)  
 < Language > English

< Program, January 28<sup>th</sup>, 21:00—24:00 >

Time	Presentation Title and Speaker
21:00-21:10	<b>Opening Remarks</b> Hisao Matsunaga (Kyushu University, Japan)
21:10-21:50	<b>Invited talk 1:</b> The Synergistic Action of HELP and HEDE Mechanisms of Hydrogen Embrittlement in Steels Milos B. Djukic (University of Belgrade, Serbia)
21:50-22:30	<b>Invited talk 2:</b> Study on Low Cycle Fatigue Property for a Hydrogen Pre-charged to 316L Stainless Steel Un-Bong Baek (KRISS, Korea)
22:30-22:40	Break
22:40-23:20	<b>Invited talk 3:</b> Hydrogen Influence on Mechanical Properties and Microstructure in Pipeline Steels for Subsea Hydrogen Gas Transport Anette Brocks Hagen (SINTEF, Norway)
23:20-24:00	<b>Invited talk 4:</b> Atomistic Simulation Activities at Sandia Xiaowang Zhou (Sandia National Laboratories, USA)

< Program, January 29<sup>th</sup>, 21:00—24:00 >

Time	Presentation Title and Speaker
21:00-21:40	<b>Invited talk 5:</b> Opening New Horizons in the Prediction of Hydrogen Embrittlement: Multi-physics Phase Field Fracture Emilio Martínez-Pañeda (Imperial College London, UK)
21:40-22:20	<b>Invited talk 6:</b> Scanning Kelvin Probe Force Microscopy Study on Hydrogen Distribution in Austenitic Stainless Steel Zhengli Hua (Zhejiang University, China)
22:20-22:30	Break
22:30-23:10	<b>Invited talk 7:</b> Hydrogen-induced Ductility-loss Accompanied with Intergranular Fracture in Pure Ni and Cu-Ni binary alloy Kentaro Wada (Fukuoka University, Japan)
23:10-23:50	<b>Invited talk 8:</b> Macroscale-based Approaches for Assessing the Influence of Hydrogen on the Deformation Behavior of Polycrystalline Ni Zachary D. Harris (University of Virginia, USA)
23:50-24:00	<b>Closing Remarks</b> Brian Somerday (University of Illinois at Urbana-Champaign, USA)