Program Overview

Time	18SUN	19MON	20TUE	21WED	22THR	23FRI
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9		Registration	Hydrogen and Water Vapor 1 KY-01	Self-Healing Ceramics KY-02	Nuclear Materials KY-03	Coatings O-38
		Opening Remarks	Hydrogen and Water Vapor 1 O-12	Self-Healing Ceramics O-22	CMAS O-26	Coatings O-39
10		Plenary Lecture PL-01	Hydrogen and Water Vapor 1 O-13	Self-Healing Ceramics O-23	CMAS O-27	Coatings O-40
		Coffee Break	Coffee Break	Coffee Break	Coffee Break	Coffee Break
11		Fundamental 1 O-01	Hydrogen and Water Vapor 2 O-14	Ceramics and Refractory Metal Alloys O-24	Molten Salts 1 O-28	Mechanical Property and Material Processing O-41
		Fundamental 1 O-02	Hydrogen and Water Vapor 2 O-15	Ceramics and Refractory Metal Alloys O-25	Molten Salts 1 O-29	Mechanical Property and Material Processing O-42
12		Fundamental 1 O-03	Hydrogen and Water Vapor 2 O-16	Lunch	Molten Salts 1 O-30	Summary and Discussion
		Lunch	Lunch		Lunch	Closing Remarks
13		Fundamental 2 O-04	Deposit Induced Corrosion 1 O-17	Excursion or Free Time	Molten Salts 2 O-31	
14		Fundamental 2 O-05	Deposit Induced Corrosion 1 O-18	Excursion or Free Time	Molten Salts 2 O-32	
		Fundamental 2 O-06	Deposit Induced Corrosion 1 O-19	Excursion or Free Time	Molten Salts 2 O-33	
15	Registration	Fundamental 2 O-07	Coffee Break	Excursion or Free Time	Coffee Break	
	Registration	Coffee Break	Deposit induced corrosion 2 O-20	Excursion or Free Time	Compex Gas Atmospheres O-34	
16	Registration	Fundamental 3 O-08	Deposit induced corrosion 2 O-21	Excursion or Free Time	Compex Gas Atmospheres O-35	
	Registration	Fundamental 3 O-09		Excursion or Free Time	Compex Gas Atmospheres O-36	
17		Fundamental 3 O-10	Poster & Free Discussion 1 (PS-01～PS-38)	Excursion or Free Time	Compex Gas Atmospheres O-37	
	Welcome Party	Fundamental 3 O-11	Poster & Free Discussion 1 (PS-01～PS-38)	Excursion or Free Time		
18	Welcome Party		Coffee break	Excursion or Free Time	Banquet	
	Welcome Party		Poster & Free Discussion 2 (PS-39～PS-77)	Excursion or Free Time	Banquet	
19			Poster & Free Discussion 2 (PS-39～PS-77)		Banquet	
20						

Program

18 OCT (Sunday)		
15:00-17:00	**Registration**	
17:30-19:00	**Welcome Party**	**Minato Marche Pier Bandai**

Oral presentation: Plenary 50 min, Keynote 40 min, Oral 25 min (including discussion)

19 OCT (Monday)		
08:30-09:35	**Registration**	
09:35-09:50	**Opening Remarks**	Makoto Nanko, Chairman of ISHOC-2026
09:50-10:40	**Plenary Lecture**	**Chairperson: Makoto Nanko**
[PL-01]	**The Promise of Complex Oxides for Protection of Refractory Alloys** *Elizabeth Opila[1], Lauren Bowling[1], Cassie Urann[1], Charlie Brandenburg[1] (1. University of Virginia (USA))	
10:40-11:00	**Coffee Break**	
11:00-12:15	**Fundamental 1**	**Chairperson: Mitsutoshi Ueda**
[O-01]	**Formation of complex oxides on equiatomic Ta-Mo-Cr-Ti-Al in steam** *Bronislava Gorr[1], Björn Schaefer[1], Chongchong Tang[1], Carsten Schroer[1], Fabian Lanoy[2], Emma White[2], Mathias Galetz[2] (1. Karlsruhe Institute of Technology (Germany), 2. Dechema Research Institute (Germany))	
[O-02]	**Comparative Analysis of Isostructural $CrNbO_4$ and $CrTaO_4$ Oxides under Varied Oxygen Partial Pressure** *Yen-Ling Kuo[1], Shusei Fujita[1], Kazuki Kasahara[1], Makoto Nanko[1] (1. Nagaoka University of Technology (Japan))	
[O-03]	**Effect of Nb and Ta Additions on the High-Temperature Oxidation of Fe-20at.%Cr alloy** *Suzue Yoneda[1], Chongchong Tang[2], Bronislava Gorr[2], Shigenari Hayashi[1] (1. Hokkaido University (Japan), 2. Karlsruhe Institute of Technology (Germany))	
12:15-13:30	**Lunch**	
13:30-15:10	**Fundamental 2**	**Chairperson: Aya Harashima**
[O-04]	**Deciphering the Oxidation Mechanisms of pure Co, Ni, Fe, and their Cr-Containing Alloys: Validation and Extension of the Available Space Model via Isotopic Tracing ($^{18}O_2/^{16}O_2$) and nanoSIMS** Sergio Diez-Mayo[1], *Laure Martinelli[1], Maximilien Verdier Paoletti[2], Fabien Rouillard[1] (1. CEA (France), 2. CNRS (France))	
[O-05]	**Effects of Atmosphere, Internal Oxidation, and Decarburization on the Reduction Behavior of Hot–Rolled Oxide Scale during Re–Annealing of Hot–Rolled Coils** *Shuya Maekawa[1], Ryosuke Otomo[1], Akira Kawakami[1] (1. Kobe Steel, Ltd. (Japan))	

[O-06]	**Recent Progress on the Study of Degradation and Volatilisation of Thermal Oxide Scales on Ferritic Stainless Steels Exposed to CO_2- and H_2O-containing Atmospheres** *Somrerk Chandra-ambhorn[1] (1. King Mongkut's University of Technology North Bangkok (Thailand))	
[O-07]	**Metal Dusting of Nickel-based High-Cr Alloys in Colossal Carbon Supersaturation** *Charlie Chun[1] (1. ExxonMobil Technology and Engineering Company (USA))	
15:10-15:30	**Coffee Break**	
15:30-17:10	**Fundamental 3**	**Chairperson: Xuan Liu**
[O-08]	**High temperature oxidation and protection of an ODS NiCr additive manufactured alloy** *Fernando Pedraza[1], Antoine Duval[1], Gilles Bonnet[1] (1. La Rochelle University (France))	
[O-09]	**Oxidation Behavior of Ni-Al and Ni-Al-Cr Alloys in Dry and Wet Oxygen at Intermediate Temperatures** Shiyu Mao[1], *Jianqiang Zhang[1], David J Young[1] (1. University of New South Wales (Australia))	
[O-10]	**Microstructural Design of Electroless Ni-Modified Pt-Aluminide Coatings for Enhanced High-Temperature Oxidation Resistance** *Giulia Pedrizzetti[1], Virgilio Genova[1], Erica Scrinzi[2], Francesco Marra[1], Giovanni Pulci[1] (1. Sapienza University of Rome, 2. Baker Hughes (Italy))	
[O-11]	**Effects of Impurity S on Oxidation Resistance of Ni-Base Single Crystal Superalloy PWA1484™ at 800 °C** *Chihiro Tabata[1], Satoshi Utada[1], Toshio Osada[1], Kyoko Kawagishi[1] (1. National Institute for Materials Science (Japan))	

20 OCT (Tuesday)		
09:00-10:30	**Hydrogen and Water Vapor 1**	**Chairperson: Yen-Ling Kuo**
[KY-01]	**Effect of minor alloying additions on the oxidation behavior of ferritic stainless steels in H_2/H_2O atmospheres** *Dmitry Naumenko[1] (1. Forschungszentrum Jülich GmbH (Germany))	
[O-12]	**Effect of H_2-H_2O ratio on the oxidation behavior of different interconnector steels** David Kniep[1], Mario Rudolphi[1], *Mathias C. Galetz[1] (1. DECHEMA Forschungsinstitut (Germany))	

[O-13]	**Hydrogen and water vapor effects on high temperature corrosion behaviour of Fe-20Cr-(1Si, 2Mn and 2Al)** Jairui Chen[1], Jianqiang Zhang[1], *David Young[1] (1. University of New South Wales (Australia))	
10:30-10:50	**Coffee Break**	
10:50-12:05	**Hydrogen and Water Vapor 2**	**Chairperson: Jianqiang Zhang**
[O-14]	**Impact of hydrogen on the corrosion behavior and mechanical properties of precipitation-strengthened Ni-base alloys** *Rishi Pillai[1], Marie Romedenne[1], Tracie Lowe[1], Y.F. Su[1] (1. ORNL (USA))	
[O-15]	**Steam, Carbon Dioxide, and Oxygen Potential's Role on Early-Stage Alumina-Scale Establishment for Model Ni-Al-Cr Alloys** *John Locker[1], Kim Kisslinger[2], Judy Yang[2], Brian Gleeson[1] (1. University of Pittsburgh (USA), 2. Brookhaven National Lab (USA))	
[O-16]	**Pressure Dependence of Steam / Supercritical Water Oxidation of 9Cr and 18Cr Steels** *Yoshiaki Toda[1], Nina Kobata[1], Xianglan Li[1], Masahiko Demura[1] (1. NIMS (Japan))	
12:05-13:30	**Lunch**	
13:30-14:45	**Deposit Induced Corrosion 1**	**Chairperson: Suzue Yoneda**
[O-17]	**From Fuel to Failure Modelling Deposition and Corrosion Mechanisms Affecting Heat Exchanger Materials in Biomass and Waste Fired Boilers** Stefano Mori[2], Andrew Potter[2], Dhinesh Thanganadar[2], Nigel Simms[2], *Joy Sumner[1] (1. Swinburne University of Technology (Australia), 2. Cranfield University (UK))	
[O-18]	**Identification of the first melting temperature in heat-transfer deposits utilizing an electrochemical approach** *Juho Lehmusto[1], Ali PourghasemiHanza[1], Mikael Bergelin[2] (1. Abo Akademi University (Finland), 2. Turku PET Centre (Finland))	
[O-19]	**Investigating High-Temperature Corrosion Mechanisms Simulating Municipal Solid Waste Incineration Boiler Superheater Tubes Using a Volatile Salt Corrosion Test Method** *Shota Kawasaki[1], Torbjörn Jonsson[2], Jesper Liske[2] (1. JFE Engineering Corporation (Japan), 2. Chalmers University of Technology (Sweden))	
14:45-15:05	**Coffee Break**	
15:05-15:55	**Deposit Induced Corrosion 2**	**Chairperson: Christine Geers**
[O-20]	**Behavior of Nickel-Based Alloys in contact with Na_2SO_4 and Na_2SO_4-$MgSO_4$ molten salts at 750 °C – Results from Single Immersion and Electrochemical Measurements** *Mathieu Mathieu Stéphane[1], Diomandé Djénéba[2], Panteix Pierre-Jean[1], Aranda Lionel[1], Petitjean Carine[1], Vilasi Michel[1]	

	(1. Université de Lorraine, CNRS (France), 2. Université Paris-Sacaly, CEA (France))
[O-21]	**Effect of carbides on the corrosion of Stellite 31** Andrew Potter[1], Joy Sumner[1,2], John Boswell[3], *Stefano Mori[1] (1. Cranfield University (UK), 2. Swinburne University and Technology (Australia), 3. Siemens-Energy Ltd (UK))
16:15-17:45	**Poster and Free Discussion 1**
17:45-18:00	**Coffee Break**
18:00-19:30	**Poster and Free Discussion 2**

21 OCT (Wednesday)		
09:00-10:30	**Self-Healing Ceramics**	**Chairperson: Daisuke Maruoka**
[KY-02]	**Possibility of new self-healing ceramics using steam oxidation** *Wataru Nakao[1] (1. Yokohama National University (Japan))	
[O-22]	**Radiation Induced Self-Healing of Ceramic Metal Composites.** *Gordon James Thorogood[1,3], Alan Xu[1,2], Dhriti Bhattacharyya[1,2], Tao Wei[1], Annastasia Bedford[1], Mihail Ionescu[1], Houng Thi Nguyen[3], Khlaisongkhram Phanuwat[3], Mael Peyches[1], Yen-Ling Kuo[3], Do Thi Mai Dung[3], Hisayuki Suematsu[3], Makoto Nanko[3] (1. ANSTO (Australia), 2. University of New South Wales (Australia), 3. Nagaoka University of Technology (Japan))	
[O-23]	**Evaluation of Self-healing Behavior in Nb-added, Al-rich Ti_2AlC Using a Controlled Crack Introduction Method** *Naoya Yamaguchi[1], Taiyo Maeda[2], Manato Yagi[1], Riku Kanto[1], Kuo Yen-Ling[3], Makoto Nanko[3], Shingo Ozaki[2,4], Toshio Osada[4,2] (1. National Institute of Technology, Fukushima College (Japan), 2. Yokohama National University (Japan), 3. Nagaoka University of Technology (Japan), 4. National Institute for Materials Science (Japan))	
10:30-10:50	**Coffee Break**	
10:50-11:40	**Ceramics and Refractory Metal Alloys**	**Chairperson: Domingo Jullian**
[O-24]	**Reduction of Oxide Scale Spallation in Cr-Si Alloys by Ge and Mo Additions supported by S-XRD measurements up to 1000 °C** *Jonas Witzgall[1], Mona Ouardi[1], Kan Ma[2], Anke Silvia Ulrich[1] (1. University of Bayreuth (Germany), 2. City University of Hong Kong (Hong Kong))	
	Oxidation Behavior of Laser Chemical Vapor Deposited Silicon Carbide	

[O-25]	**Fibers** *Gregory Thompson[1], Michael Pavel[1], Kirk L. Williams[2], Ram K. Goduguchinta[2], Jeff Vervlied[2], Shay Harrison[2] (1. The University of Alabama (USA), 2. Free Form Fibers (USA))
11:40-13:00	**Lunch**
13:00-	**Excursion or Free Time**

22 OCT (Thursday)		
09:00-09:40	**Nuclear Materials**	**Chairperson: Laure Martinelli**
[KY-03]	**Development of Advanced Technology Fuel Cladding Materials: A Materials Science Perspective on High-temperature Oxidation** *Hai Pham[1], Toru Kitagaki[1], Yoshiyuki Nemoto[1], Shinichiro Yamashita[1], Yuji Okada[2], Daiki Sato[2], Ryo Ishibashi[3], Masana Sasaki[3] (1. Japan Atomic Energy Agency (Japan), 2. Mitsubishi Heavy Industries, Ltd. (Japan), 3. Hitachi GE Vernova Nuclear Energy, Ltd. (Japan))	
09:40-10:30	**CMAS**	**Chairperson: Roland Balint**
[O-26]	**Thermal Gradient and CMAS Behaviour of Axial Suspension Plasma Spray Columnar Thermal Barrier Coatings** *Maxime Gaudin[1], Simon Goutier[2], Emilie Béchade[2], Alan Kéromnès[2], Louis Hennocque[1], Aurélien Joulia[1] (1. Safran Tech (France), 2. IRCER CNRS UMR 7315 (France))	
[O-27]	**Durability of single and dual rare earth silicates in CMAS type molten silicates** *Pierre-Jean Panteix[1], Louis Saint-Jean[1], Carine Petitjean[1], Paul Carminati[2], Michel Vilasi[1] (1. Institut Jean Lamour (France), 2. Safran Ceramics (France))	
10:30-10:50	**Coffee Break**	
10:50-12:05	**Molten Salts 1**	**Chairperson: Akira Yamauchi**
[O-28]	**The Different Roles of Lithium in High- and Medium-Temperature Corrosion Environments** *Christine Geers[1], Aida Nikakht[1], Esraa Hamdy[2], Ageo Meier de Andrade[1], Itai Panas[1] (1. Chalmers University of Technology (Sweden), 2. Swerim (Sweden))	
[O-29]	**Corrosion Scale Evolution of Inconel 625 Exposed to LiF at 600 °C** *Aida Nikbakht[1], Maciej Bik[2], Christine Geers[1] (1. Chalmers University of Technology (Sweden), 2. AGH University of Krakow (Poland))	
[O-30]	**Effect of NaCl – $MgCl_2$ molten salt purity on the corrosion behavior of a Ni-Mo-Cr based alloy at 600°C**	

	*Julien Pertuiset[1], Michihisa Fukumoto[1,2], Olivier Genève[1], Romain Malacarne[1], Laure Martinelli[1], Jules Phocas[1], Annabelle Vernouillet[1], Nathalie Gruet[1] (1. CEA Saclay (France), 2. Akita University (Japan))	
12:05-13:30	**Lunch**	
13:30-14:45	**Molten Salts 2**	**Chairperson: Mathias Galetz**
[O-31]	**Molten chloride salt corrosion of model alloys to investigate Cr-Mo dissolution coupling effect** *Annabelle Vernouillet[1], Romain Malacarne[1], Rimene Ben Ayadi[1], Clara Desgranges[1], Patrick Olier[1], Marc Ronfard-Haret[1] (1. Université Paris-Saclay, CEA (France))	
[O-32]	**Slurry aluminide coatings as a promising protection strategy for Next-gen CSP-TES application** *Loïc Oger[1], Jon Pascual Ferreiro[1], Sergio Rodríguez Catela[1], Alina Agüero[1], Pauline Audigié[1] (1. Instituto Nacional de Técnica Aeroespacial (INTA) (Spain))	
[O-33]	**Influence of α-Al_2O_3 Nanoparticle Addition on the Thermophysical Properties and Corrosivity of Ternary Carbonate Salt under Flow-Accelerated Conditions.** Jaime Chaves González[1], Gustavo García Martín[1], María Isabel Lasanta Carrasco[1], María Teresa De Miguel Gamo[1], *Francisco Javier Pérez Trujillo[1] (1. Complutense University of Madrid (Spain))	
14:45-15:05	**Coffee Break**	
15:05-16:45	**Complex Gas Atmospheres**	**Chairperson:** **Somrerk Chandra-ambhorn**
[O-34]	**Corrosion behavior of 316L stainless steel in hydrogen fluoride gas at 400 degree celsius** *Naoki Sei[1], Yoshiyuki Otake[1], Yoshihiko Koyanagi[1], Brian Gleeson[2] (1. Daido Steel (Japan), 2. University of Pittsburgh (USA))	
[O-35]	**The Effect of Temperature and Pressure on the Corrosion of High Temperature Alloys when exposed to High Temperature Helium** *Lawrence Coghlan[1], Robert Burrows[2], Jonathan Hawes[2], Ronald N Clark[2], David Kumar[2], Mariia Zimina[1], Aya Shin[3], Tomas Martin[1] (1. University of Bristol (UK), 2. United Kingdom National Nuclear Laboratory (UK), 3. EDF UK R&D (UK))	
[O-36]	**Sulphidation process in 1% vol. H_2S – Ar at high temperature of PBF-LP/M, PPS and SPS 316L-based alloys** *Tomasz Pawel Dudziak[1], Magda Bisztyga-Szklarz[1], Anna Dobkowska[2], Lukasz Boron[1] (1. Łukasiewicz - Krakow Institute of Technology (Poland), 2. Warsaw University of Technology (Poland))	
[O-37]	**Insights into corrosion phenomena under complex atmospheres by a multi-analytical approach across different length scales**	

	*Christiane Stephan-Scherb[1], Martin Ende[1] (1. Martin-Luther-University Halle-Wittenberg (Germany))

18:00-20:30	**Banquet @Hotel Nikko Niigata**

O23 OCT (Friday)		
09:00-10:15	**Coatings**	**Chairperson: Stefano Mori**
[O-38]	**Low-Temperature Deposition of Al-Rich Coatings on AISI 316: Breakdown of Chromia Formation Induced by Spinel Templating** *Domingo Jullian[1], Ignacio González[1], Suzue Yoneda[2], Shigenari Hayashi[2] (1. Universidad de O'Higgins (Chile), 2. Hokkaido University (Japan))	
[O-39]	**Influence of heat treatment parameters on the high temperature oxidation behavior of slurry aluminide coatings on Ni-based superalloys** *Laurie Gaüzère[1], Mathieu Mondet[2], Fernando Pedraza[1] (1. Université de La Rochelle, LaSIE (France), 2. Safran Aircraft Engines (France))	
[O-40]	**Effect of pressure on the oxidation of MCF coated interconnector alloys in pure oxygen under gas-flow conditions** *Maria del Mar Juez Lorenzo[1], Vladislav Kolarik[1], Veronica Kuchenreuther-Hummel[1], Erik Walschburger[1], Andrzej Koleczko[1], Chen-Yu Tsai[2], Ludwig Reichel[2] (1. Fraunhofer ICT (Germany), 2. Sunfire SE (Germany))	
10:15-10:35	**Coffee Break**	
10:35-11:25	**Mechanical Property & Material Processing**	**Chairperson: Naoya Yamaguchi**
[O-41]	**Prediction of cementite network formation under low pressure carburizing** *Tsuyoshi Sugimoto[1] (1. National Institute of Technology, Asahikawa College (Japan))	
[O-42]	**Acoustic Emission Monitoring of Pre-Oxidized Zirconium during Tensile Testing in a SEM** Solene Houde[1], Julie Marteau[1], Marion Risbet[1], *Jérôme Favergeon[1] (1. UTC (France))	
11:25-11:40	**Summary and Discussion**	Michihisa Fukumoto, Vice Chairman of ISHOC-2026
11:40-11:50	**Closing Remarks**	Mitsutoshi Ueda, Vice Chairman of ISHOC-2026

Poster Presentations

Poster and Free Discussion 1 (16:15-17:45)

[PS-01]	**Evaluation of interfacial thermal resistance of Fe/$Fe_{1-x}O$ using spot periodic heating radiation thermometry** *Keisho Maeda[1], Rei Koseki[1], Rie Endo[1], Takashi Yagi[2] (1. Shibaura Institute of Technology (Japan), 2. National Institute of Advanced Industrial Science and Technology (Japan))
[PS-02]	**Revealing the grain orientation-dependent Wüstite nucleation in Fe1Mn alloy** *Radhey Murlidhar Bachhav[1], Vitaliy Bliznuk[2], Arjan Mol[1], Amarante Böttger[1] (1. Delft University of Technology (Netherlands), 2. Ghent University (Belgium))
[PS-03]	**Liquid-Phase Reactions during Early-Stage Scale Formation in the Presence of Na_2O-SiO_2 Liquid** *Takuro Ushikubo[1], Kazuki Nishinaka[2], Hiroshi Fukaya[1], Takahiro Miki[1] (1. Tohoku University (Japan), 2. JFE Steel Corp. (Japan))
[PS-04]	**Effect of Ti Addition on the High-Temperature Oxidation Behavior of Nb-stabilized 19% Cr Ferritic Stainless Steel** *Atsutaka Hayashi[1,2], Mitsutoshi Ueda[2,3], Shigenari Hayashi[2], Suzue Yoneda[2] (1. Nippon steel corporation (Japan), 2. Hokkaido University (Japan), 3. Institute of Science Tokyo (Japan))
[PS-05]	**Thermal performance of a composite phase change material with alumina-microencapsulated Al-Si eutectic for thermal energy storage** *Sarah Levy[1], Marie Duquesne[1], Alexandre Godin[1], Elena Palomo Del Barro[2], Jean-Luc Dauvergne[2], Fernando Pedraza[1], Benjamin Grégoire[1] (1. LaSIE, La Rochelle Université (France), 2. CIC energiGUNE, Parque Technológico de Álava (Spain))
[PS-06]	**Effects of Nano-Oxide Dispersions on the High Temperature Capabilities of Alumina Forming Multi-Principal Element Alloys** *Braeden A Duwa[1], Colton A Gilleland[2], Gregory B Thompson[2], Mark L Weaver[1] (1. The University of Alabama (USA), 2. Alabama Materials Institute (USA))
[PS-07]	**Effect of Surface Preparation on the Oxidation Behavior of three Nickel-Based Alloys** *Thomas Perez[1], Lucas Poussier[1], Tom Sanviemvongsak[1] (1. Safran Tech (France))
[PS-08]	**High-Temperature Stability and Magnetic Behavior of NiMnGa Ferromagnetic Shape Memory Alloys under Oxidation** *Aya Harashima[1], Naoki Nohira[1], Masaki Tahara[1], Hideki Hosoda[1] (1. Institute of Science Tokyo (Japan))
[PS-09]	**High Temperature Oxidation of several HEAs Derived From the Cantor's Alloy** *Patrice Berthod[1] (1. University of Lorraine (France))

[PS-10]	**[PS-10] Microstructural Evolution of Oxide Scale on an Fe-9mass%Cr Alloy under Hydrogen Permeation at 923 K** *Rei Okita[1], Mitsutoshi Ueda[1,2], Suzue Yoneda[1], Shigenari Hayashi[1] (1. Hokkaido University (Japan), 2. Institute of Science Tokyo (Japan))
[PS-11]	**Beyond Initial Oxidation: Long-Term Internal Corrosion Behavior of AISI 347H at 700 °C in Humid Environments** *Hooman Karimi Abadeh[1], Hampus Lindmark[1], Tobias Mattison[1], Torbjörn Jonsson[1], Jesper Liske[1] (1. Chalmers University of Technology (Sweden))
[PS-12]	**Cancelled**
[PS-13]	**A Stepwise Multi-Temperature Thermogravimetric Approach for Rapid Assessment of Cyclic Oxidation Behavior of AM1 Single-Crystal Nickel Base Superalloy** *Sharvan Kumar[1], Daniel Monceau[1], Thomas Perez[2] (1. CIRIMAT (France), 2. Safran Tech (France))
[PS-14]	**Water Vapor Oxidation Behavior of Thermal Barrier Coatings with APS- and HVOF-Sprayed Bond Coats** *Toshiki Sato[1], Yutaro Ota[1], Yasuo Matsunaga[1], Yuta Tanaka[1] (1. IHI Corporation (Japan))
[PS-15]	**Microstructural Evolution of Oxide Scales on an Fe-9mass%Cr Alloy in Dry CO_2 during Heating up to 923 K** *Shunsuke Hamada[1], Mitsutoshi Ueda[1,2], Suzue Yoneda[1], Shigenari Hayashi[1] (1. Hokkaido University (Japan), 2. Institute of Science Tokyo (Japan))
[PS-16]	**Sulfidation of steels in H_2S containing atmospheres** *Alexander Georg Donchev[1], Mario Rudolphi[1], Mathias Galetz[1] (1. DFI (Germany))
[PS-17]	**Nitridation resistance of commercially available alloys under ammonia cracking conditions** *Katharina Beck[1], Ceyhun Oskay[1], Fausto Tidona[2], Lena Engelmeier[2], Mathias C. Galetz[1] (1. DFI (Germany), 2. ZBT (Germany))
[PS-18]	**Effect of Flue Gas Temperature on High-Temperature Corrosion Behavior of Superheater Tubes under Waste-to-Energy Boiler Conditions** *Taisei Kurosawa[1], Hiromitsu Cho[1], So Murasue[1], Naoki Kamiyama[1] (1. EBARA Environmental Plant Co., Ltd. (Japan))
[PS-19]	**Studies of Type II Hot Corrosion Mechanisms Using Powder Model Systems** *Lourdes Camarma[1], Dmitry Naumenko[1], Michael Mueller[1], Martin Sperr[2], Martin Frommherz[2] (1. Forschungszentrum Jülich GmbH (Germany), 2. MTU Aero Engines AG (Germany))

[PS-20]	**Effect of SO_2 and Sulphate on Corrosion of Ni-based Alloys 625 and 233 at 650 °C** *Xuteng Xi[1], Jianqiang Zhang[1], Sophie Primig[1], David J. Young[1] (1. The University of New South Wales (Australia))
[PS-21]	**High-Temperature Corrosion Behavior of Ni-30Cr-*x*W Alloys in Waste-to-Energy Boiler Condition** *Mitsuki Nosaka[1], Suzue Yoneda[1], Masaya Kanazawa[2], Eiji Ishikawa[3], So Murasue[4], Mitsutoshi Ueda[1], Shigenari Hayashi[1] (1. Hokkaido University (Japan), 2. Dai-ichi High Frequency Co., Ltd (Japan), 3. EBARA Environmental Plant Co., Ltd (Japan), 4. EBARA Corporation (Japan))
[PS-22]	**Evaluation of Exploratory Fast-passivating (Ni, Co)-based Metallic Coatings from Modelling** *Preston Nguyen[1], Halle White[1], David Poerschke[1] (1. University of Minnesota (USA))
[PS-23]	**Effects of Surface Preparation and Creep-Fatigue Loading on the Corrosion Behavior of INCONEL 718 in Static Liquid Sodium at 550 °C** *Florian André Lebendig[1], Florian Martini, Olaf Wedemeyer[1], Gaetano Aiello[1], Michael Dürrschnabel[1], Björn Schäfer, Carsten Schroer[1], Bronislava Gorr[1] (1. Karlsruhe Institute of Technology (Germany))
[PS-24]	**Effect of Fe dilution on the high-temperature corrosion behavior of In625 alloy under deposition of synthetic ash containing alkali salts in air** *Naoki Saegusa[1], Shigenari Hayashi[1], Suzue Yoneda[1], Mitsutoshi Ueda[1], Hirotaka Sato[2], Fumika Kanada[2] (1. Hokkaido University, (Japan), 2. Nippon Steel Engineering Co., Ltd. (Japan))
[PS-25]	**Electrochemical study of tellurium in the NaCl–$MgCl_2$ molten salt at 600 °C** *Djénéba Diomandé[1], Annabelle Vernouillet[1], Romain Malacarne[1], Nathalie Gruet[1], Laure Martinelli[1] (1. CEA Saclay (France))
[PS-26]	**Ceramics for nuclear materials pyroprocessing: mechanisms of corrosion by molten salts and 3D printing advances** *Thomas Dalger[1], Anouck Anglade[1,2], Olivier Lemoine[1], Pierre-Jean Panteix[2], Carine Petitjean[2] (1. CEA (France), 2. Institut Jean Lamour - UMR 7198 (France))
[PS-27]	**Type I hot corrosion of slurry aluminide coatings** *Maël Debove[1], Fernando Pedraza[1], Louis Hunault[1], Benjamin Grégoire[1] (1. LaSIE (France))
[PS-28]	**Effect of Heating and Deformation on PVD Nitride Coatings** *Yasunori Harada[1], Souma Inagaki[1], Yusuke Ushiro[2], Ippei Tanaka[1] (1. University of Hyogo (Japan), 2. Umetoku Co., Ltd. (Japan))

[PS-29]	**Microstructural Analysis and Oxidation/Hot Corrosion Behavior of Cr_3C_2-NiCr Coatings with HfO_2 and Si Additions** *Safitry Ramandhany[1], Shigenari Hayashi[2], Eni Sugiarti[3], Djoko Triyono[1], Endro Junianto[3], Suzue Yoneda[2], Mitsutoshi Ueda[2], Hubby Izzuddin[3], Agus Sukarto Wismogroho[3], Nurul Latifah[3], Kurotun Aini[3], Risma Yulita Sundawa[3], Muhamad Sar'i[3] (1. University of Indonesia (Indonesia), 2. Hokkaido University (Japan), 3. National Research and Innovation Agency (BRIN) (Indonesia))
[PS-30]	**Effect of Pure Metal Coatings on High-Temperature Corrosion Behavior of Fe-20Cr-20Ni in an Ammonia-Containing Atmosphere** *Tomoya Kudo[1], Suzue Yoneda[1], Mitsutoshi Ueda[1], Shigenari Hayashi[1] (1. Hokkaido University (Japan))
[PS-31]	**Sintering and Oxidation Behavior during the Composite Sintering Process with Green Pellets Using De-phosphorized Fine Iron Ore** *Daisuke Maruoka[1], Fumiya Sudo[2], Zhe Ma[2], Taichi Murakami[2], Shohei Fujiwara[3], Eiki Kasai[2,3] (1. National Institute of Technology, Hachinohe College (Japan), 2. Tohoku University (Japan), 3. JFE Steel Corporation (Japan))
[PS-32]	**Evaluation of Dynamic Deformation Behavior of Oxide Scale Layer in Roll Bite during Hot Rolling** *Akio Segawa[1], Yasumitsu Kondo[1] (1. Kanazawa Institute of Technology (Japan))
[PS-33]	**Effects of Cr Boride on High Temperature Erosion Corrosion Behavior of Fe-Ni-Cr-B Alloys** *Takuto Nakajima[1], Suzue Yoneda[1], Mitsutoshi Ueda[1], Shigenari Hayashi[1] (1. Hokkaido University (Japan))
[PS-34]	**Predicting the Corrosion Resistance of Fe and Fe–Cr Alloys in Ammonia Environments Using Gaussian Process Regression** *Michihisa Fukumoto[1], Keita Itano[2], Hiroki Takahashi[1], Laure Martinelli[3], Clara Desgranges[3] (1. Akita University (Japan), 2. JAMZTEC (Japan), 3. CEA (France))
[PS-35]	**High-temperature Oxidation Behavior of Cr_2AlC Ceramics** Okada Itsuki[1], *Yuuma Onodera[1], Naoya Yamaguchi[2], Yen-Ling Kuo[1], Makoto Nanko[1] (1. Nagaoka university of Technology (Japan), 2. National Institute of Technology, Fukushima College (Japan))
[PS-36]	**High-temperature Reaction of Secondary Aluminum Dross Ceramics with Molten Aluminum** *Kaito Suzuki[1], Takahiro Suzumura[2], Yen-Ling Kuo[1], Makoto Nanko[1] (1. Nagaoka University of Technology (Japan), 2. Suzumura Co., Ltd., (Japan))
[PS-37]	**Nanocrystalline Refractory Alloy Design for Enhanced Oxidation Tolerance in Extreme Environments** *Colton Gilleland[1], Braeden Duwa[2], Mark Weaver[2], Gregory Thompson[1,2] (1. Alabama Materials Institute (USA), 2. University of Alabama (USA))

[PS-38]	**Characterizing Strain-Rate-Dependent Plasticity of Alloys via High-Temperature Instrumented Indentation** *Ikumu Watanabe[1], Ta-Te Chen[1,2] (1. National Institute for Materials Science (Japan), 2. Nagoya University (Japan))

Poster Presentations

Poster and Free Discussion 2 (18:00-19:30)

[PS-39]	**In-Situ Observation of Cu Precipitation Behavior in Fe–Cu Alloy during High-Temperature Oxidation and Subsequent Cooling** *Kosuke Hayashi[1], Yasuyoshi Hidaka[1], Yurika Yamanouchi[2], Shigenari Hayashi[2] (1. Nippon Steel Corporation (Japan), 2. Hokkaido University (Japan))
[PS-40]	**Onset of Liquid Phase Formation in Oxide Scale during High-Temperature Oxidation of Si-Bearing Steel in Air** *Rei Koseki[1], Haruki Saito[1], Rie Endo[1], Hiroshi Tanei[2] (1. Shibaura Institute of Technology (Japan), 2. Nippon Steel Corporation (Japan))
[PS-41]	**Shape Changes of Internal Oxides during Oxidation of Fe-Cr Alloys in Hydrogen-Containing Atmospheres** *Mitsutoshi Ueda[1,2], Shunsuke Norimatsu[2] (1. Hokkaido University (Japan), 2. Institute of Science Tokyo (Japan))
[PS-42]	**Corrosion Protection of Chromia-scale Forming Fe-based Alloy for Boiler Tubes of Waste to Energy Plants** *Ali Shaaban[1], Takashi Furugaki[2], Suzue Yoneda[1], Shigenari Hayashi[1] (1. Hokkaido University (Japan), 2. Takuma CO., LTD (Japan))
[PS-43]	**The effects of additional elements on the oxidation behavior in Al_2O_3-forming austenitic heat-resistant alloy** *Ryo Tatsushima[1], Shigenari Hayashi[1], Suzue Yoneda[1] (1. Hokkaido University (Japan))
[PS-44]	**Effect of alloying elements on the oxidation behavior of the nickel-based superalloy TROPEA** louis hunault[1], *Fernando Pedraza[1], Stéphane Mathieu[2], Lionel Aranda[2], Jonathan Cormier[3], Renaud Podor[4], Joseph Lautru[4] (1. Lasie, Université de la Rochelle (France), 2. Institut Jean Lamour, Université de Lorraine (France), 3. Institut Pprime, ISAE-ENSMA (France), 4. ICSM, Institut de Montpellier (France))
[PS-45]	**Influence of the Chemical Composition of the Matrix of HfC–Reinforced Cast Alloys on Their High Temperature Oxidation Behavior** *Pauline Spaeter[1], Parham Anvari[2], Ivan Cazic[2], Pierre-Jean Panteix[1], Lionel Aranda[1], Christophe Rapin[1], Ulrike Hecht[2], Patrice Berthod[1] (1. University of Lorraine (France), 2. Access e.V. (Germany))

[PS-46]	**Phase Stability and Oxygen Deficiency of $CrTaO_4$ under Controlled Oxygen Partial Pressure** *Kazuki Kasahara[1], Yen-Ling Kuo[1], Makoto Nanko[1] (1. Nagaoka University of Technology (Japan))
[PS-47]	**Influence of Sn addition to AC4B aluminum alloy on the oxide film formation** *Jundai Takahashi[1], Akira Yamauchi[1], Yusuke Takayama[1] (1. National Institute of Technology, Gunma College (Japan))
[PS-48]	**Hydrogen Permeation Behavior through SUS 316 in a Supercritical Water/Dry Dual Atmosphere** *Koichi Kawahara[1], Kenji Nakahira[1], Taishi Ito[1], Daisaku Yokoe[1], Takeharu Kato[1], Satoshi Kitaoka[1], Junzo Kasahara[2,3] (1. Japan Fine Ceramics Center (Japan), 2. Engineering Advancement Association of Japan (Japan), 3. Shizuoka Univ. (Japan))
[PS-49]	**Oxidation Behavior of Heat-Resistant Stainless Steel SUSXM15J1 in the Fuel Reformer Environment of Residential Fuel Cells** *Mitsuki Sugeoi[1], Masaharu Hatano[1], Atsutaka Hayashi[1] (1. Nippon Steel Corporation (Japan))
[PS-50]	**Investigating the effect of surface finish on high temperature oxidation of novel coherent B2/L21-strengthened Fe-based BCC superalloy processed by laser directed energy deposition in steam and hydrogenated steam environment** *Koushik Kosanam[1,2], Sandor Palko[3], Zeeshan Ahmed[1], Christopher Zenk[1], Fabio Scenini[3], Sannakaisa Virtanen[1], Karthikeyan Hariharan[2] (1. Friedrich-Alexander Universität, Erlangen-Nürnberg (Germany), 2. Indian Institute of Technology Bombay (India), 3. The University of Manchester (UK))
[PS-51]	**Corrosion Properties of FSS in SOC Fuel-Side Environment at Intermediate Temperatures: The Effect of Surface Treatment** *Thorbjoern Krogsgaard[1], Lars-Gunnar Johansson[1], Jan-Erik Svensson[1], Jan Froitzheim[1] (1. Chalmers University of Technology (Sweden))
[PS-52]	**Aluminization of Cr and Cr-Mo-Si and Oxidation in Steam-containing Environments** *Sahithi Sri Durga Katepalli[1], Lisa Zander[1], Katharina Beck[1], Emma White[1], Mathias Galetz[1] (1. Dechema Forschungsinstitut (Germany))
[PS-53]	**Investigations of Electronic Surface Structure and Coke Formation following initial Metal Dusting of Ni-Cu Alloys with Fe and Mn Additions** *Hendrik Thielsch[1], Sergey Kasatikov[2], Andrea Fantin[3], Anke Silvia Ulrich[1] (1. University of Bayreuth (Germany), 2. Technische Universität Berlin (Germany), 3. Bundesanstalt für Materialforschung und -prüfung (Germany))

[PS-54]	**Decoupling Mechanistic Contributions to Type II Hot Corrosion: Comparative Study of Pure Nickel and René 65 Superalloy** *Germain Boissonnet[1], Martin Huguet[1], Benjamin Grégoire[1], Gilles Bonnet[1], Fernando Pedraza[1] (1. La Rochelle Université (France))
[PS-55]	**Corrosion of Boiler Tubes in Simulated Ammonia Combustion Environments** *Ryuma Malik Matsuda[1], Masahide Yoshida[1], Masahiko Morinaga[1] (1. CRIEPI (Japan))
[PS-56]	**Detailed investigation of the mechanistic differences in deposit-induced high-temperature corrosion under isothermal and temperature gradient conditions** *Roland Balint[1], Jonne Niemi[1], Markus Engblom[1], Juho Lehmusto[1], Daniel Lindberg[1] (1. Åbo Akademi University (Finland))
[PS-57]	**Nodule Formation Behavior of β-NiAl Alloy with Na_2SO_4 in a High-Temperature SO_2 Atmosphere** *Taisei Iwasaki[1], Shigenari Hayashi[1], Suzue Yoneda[1], Mitsutoshi Ueda[1], Kotaro Mizushino[2], Yasuo Matsunaga[2], Atsushi Tsuru[2] (1. Hokkaido University (Japan), 2. IHI Corporation (Japan))
[PS-58]	**Effect of Temperature in Actual Boiler Ash on High-Temperature Corrosion Behavior of Alloy 625** *Takaya Haji[1], Takashi Furugaki[1] (1. Takuma Co., Ltd. (Japan))
[PS-59]	**High-temperature corrosion and erosion behaviour of NiCr and NiCrMoW coatings in chlorine- and sulphur-containing environments** *Ahmad Usman[1,2], Luis Isern Arrom[1], John Nicholls[1], Mario Cordero[2], Adnan Syed (1. Cranfield University (UK), 2. Welding Alloys Group (UK))
[PS-60]	**Role of Mo and Nb microalloyants in the corrosion resistance of austenitic stainless steels exposed to ternary nitrate salt under Flow-accelerated conditions.** *Jaime Chaves González[1], María Isabel Lasanta Carrasco[1], María Teresa De Miguel Gamo[1], Gustavo García Martín[1], Francisco Javier Pérez Trujillo[1] (1. Complutense University of Madrid (Spain))
[PS-61]	**The ambivalent role of chromium in corrosive molten salt environments – Friend or foe?** *Benjamin Grégoire[1], Sarah Levy[1], Mathias Galetz[2], Ceyhun Oskay[2], Chongchong Tang[3], Bronislava Gorr[3], Fernando Pedraza[1] (1. La Rochelle Université (France), 2. DECHEMA-Forschungsinstitut (Germany), 3. Karlsruhe Institute of Technology (Germany))
[PS-62]	**Intergranular corrosion of hafnium doped oxide by liquid sodium** Claire Canas[1], Célien Galibert[1], Marie Tronyo[1], Enzo Bertuit[1], *Laurent Brissonneau[1], Nicolas Clavier[2], Nicolas Dacheux[2] (1. CEA DES IRESNE DTN/SMTA/LCMT CEA Cadarache (France), 2. ICSM, Univ Montpellier, CEA, CNRS, ENSCM Marcoule (France))

[PS-63]	**Study of the chemical durability of ceramics in molten chlorides** *Anouck Anglade[1,2], Thomas Dalger[1], Olivier Lemoine[1], Pierre-Jean Panteix[2], Carine Petitjean[2] (1. CEA DAM Valduc (France), 2. Université de Lorraine, CNRS, IJL (France))
[PS-64]	**Coatings with Anti-Oxidation, Thermal- and Mechanical-Properties < DBC System >** *Taisei Koseki[1], Masanori Kouzen[1], Mayumi Ara[1], Tadakazu Mizuta[1], Katsutoshi Koseki[1], Toshio Narita[1] (1. DBC System R&D Co., Ltd. (Japan))
[PS-65]	**Friction behavior of PVD coatings on ceramic substrates after heat treatment** *Yusuke Ushiro[1], Yasunori Harada[2], Ippei Tanaka[2], Yuji Nanba[1], Takashi Ogisu[1] (1. Umetoku Co., Ltd. (Japan), 2. University of Hyogo (Japan))
[PS-66]	**Hot corrosion behavior of simple Al SVPA and Si-modified Al slurry diffusion coatings** *Damien Piel[1], Mathieu Mondet[2], Fernando Pedraza[1] (1. La Rochelle University (France), 2. Safran Aircraft Engines (France))
[PS-67]	**Effect of the fluid speed on the corrosion of Ti64 and surface-nitrided Ti64 in pressurized water at 300 °C: mechanisms, kinetics and modelling** *Frantz Arnaud Martin[1], Cyriac Christophe[1], Quentin Auzoux[1], Stéphane Coindeau[2], Laurence Latu-Romain[2], Yves Wouters[2] (1. Université Paris Saclay, CEA (France), 2. Université Grenoble Alpes, CNRS, SIMaP (France))
[PS-68]	**Influence of Shell Thickness of Heat Storage Properties of Carbon-core/Metallic-Iron-Shell Carburizer for Electric Arc Furnace** *Mizuki Nagane[1], Daisuke Maruoka[1,2] (1. Hachinohe College, National Institute of Technology (Japan), 2. Tohoku University (Japan))
[PS-69]	**Hot Rolling Behavior of Oxide Scale with Blistering** *Yukimichi Shibakawa[1], Kota Fujii[1], Akio Segawa[1], Yasumitsu Kondo[1] (1. Kanazawa Institute of Technology (Japan))
[PS-70]	**Nitrogen effects on carbonitride precipitation characteristics and synergistic strengthening mechanisms in austenitic heat-resistant steels** *Rong Mu[1], Xinwei Wang[1], Renbo Song[1] (1. University of Science and Technology Beijing (China))
[PS-71]	**Mechanism of attack associated with stress corrosion cracking at 700°C for three distinct salt compositions applied to CMSX-10N.** *Fabian Duarte Martinez[1], Grant Gibson[2], John Nicholls[1], Jonathan Leggett[2], Simon Gray[1], Gordon Tatlock[3], Karl Dawson[3] (1. Cranfield University (UK), 2. Rolls Royce plc (UK), 3. University of Liverpool (UK))

[PS-72]	**Mapping Oxidation in Refractory High-Entropy Alloys via High-Throughput Experimentation and Machine Learning** *Michael J Pavel[1], Keithen Orson[1], Delia McGrath[1], Yuval L Krimer[1], Jorge Colindres[1], Joseph F Krause[1] (1. Radical AI (USA))
[PS-73]	**High-temperature Oxidation Behavior of Ti_2AlN MAX-Phase Ceramics** *Masato Okuda[1], Itsuki Okada[1], Kouki Nishimura[1], Naoya Yamaguchi[2], Makoto Nanko[1] (1. Nagaoka University of Technology (Japan), 2. National Institute of Technology, Fukushima College (Japan))
[PS-74]	**High throughput oxide characterization of refractory high entropy alloys** *Keithen Orson[1], Rhys Goodall[1], Yuval Krimer[1], Jorge Colindres[1], Joseph Krause[1] (1. Radical AI (USA))
[PS-75]	**Integrating Microstructural Insights into Kinetic Models of High-Temperature Oxidation** *Hampus Bo Alexander Lindmark[1] (1. Chalmers Univ. (Sweden))
[PS-76]	**Effect of precipitate size on the high temperature oxidation behavior of Al_2O_3-forming Ni-based two phase alloys** *Zhentao Wang[1], Suzue Yoneda[1], Ali Shaaban[1], Mitsutoshi Ueda[1,2], Shigenari Hayashi[1] (1. Hokkaido University (Japan), 2. Institute of Science Tokyo (Japan))
[PS-77]	**Corrosion Behavior of Mn-added SUS-316EHP in Lead-Bismuth Eutectic with Low Oxygen Concentration at 803 K** *Kenichi Kawamura[1], Yuta Takeda[1], Atsushi Komatsu[2], Chiaki Kato[2], Eriko Irisawa[2,3] (1. Institute of Science Tokyo (Japan), 2. Japan Atomic Energy Agency (Japan), 3. JGC Japan (Japan))