

Structural Materials

Carbon Neutral

NIMS Award Symposium 2023

**FREE
admission**

November 6th (Mon) – 7th (Tue), 2023

TSUKUBA International Congress Center Convention Hall 300

Day 1

Nov. 6th [Mon] 10:00 – (Registration: 9:30 –)



NIMS Award Ceremony & Winning-lecture

Prof. Dierk Raabe
(Max-Planck-Institut für Eisenforschung GmbH, Düsseldorf, Germany)
“The Materials Science Behind Hydrogen-Based Green Steel Making”

Invited Talk

Prof. Sudarsanam Suresh Babu (Univ. of Tennessee, Knoxville, USA)
Prof. Simon P. Ringer (The Univ. of Sydney, Australia)
Prof. Sung-Joon Kim (POSTECH, Korea)
Prof. Tadashi Furuhashi (Tohoku Univ.)

Day 2

Nov. 7th [Tue] 9:00 – (Registration: 8:30 –)

Invited Talk

Session 1. Deformation and Fracture

Prof. Nobuhiro Tsuji (Kyoto Univ.)
Prof. Manabu Enoki (The Univ. of Tokyo)
Prof. Masaki Tanaka (Kyushu Univ.)
Associate Prof. Motomichi Koyama (Tohoku Univ.)

Session 2. High-temperature Materials

Prof. Eiichi Sato (JAXA)
Prof. Yuichiro Koizumi (Osaka Univ.)
Associate Prof. Yuhki Tsukada (Nagoya Univ.)

How to join?

*Online Registration and Call for Posters are OPEN
on the Official Website!*




Leading Researchers of Structural Materials Field converge on Tsukuba

Nov. 6

(Mon)

9:30 -

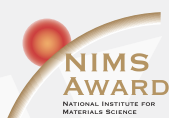
9:30 -	Registration
10:00 -	Opening Remarks, Greeting from MEXT
10:05 - 10:20	NIMS Introduction
10:20 - 10:40	NIMS Award 2023 Ceremony
10:40 - 11:40	NIMS Award 2023 Winning-lecture  Prof. Dierk Raabe (Max-Planck-Institut für Eisenforschung GmbH, Düsseldorf, Germany) “The Materials Science Behind Hydrogen-Based Green Steel Making”
11:40 - 13:00	Photo Session & Lunch Break
13:00 - 13:40	Invited Talk NA-1 Prof. Sudarsanam Suresh Babu (University of Tennessee, Knoxville, USA) “Microstructural Heterogeneity in Metal Additive Manufacturing”
13:40 - 14:20	Invited Talk NA-2 Prof. Simon P. Ringer (The University of Sydney, Australia) “Towards a New Class of Alpha-beta Ti-O-Fe Alloys via Additive Manufacturing —a case study in atomic-scale microstructural control”
14:20 - 14:40	NIMS Talk NA-3 Dr. Makoto Watanabe (RCSM, NIMS) “Understanding Process-Structure-Property Linkage of Additive Manufacturing”
14:40 - 15:00	Poster / Coffee
15:00 - 15:40	Invited Talk NA-4 Prof. Sung-Joon Kim (POSTECH, Korea) “Understanding Material Factors on Liquid Metal Embrittlement Sensitivity of Zn-coated AHSS”
15:40 - 16:20	Invited Talk NA-5 Prof. Tadashi Furuhashi (Tohoku University) “Sublattice Alloy Design for Application of Solute Clustering in High-strength Steels”
16:20 - 16:40	NIMS Talk NA-6 Dr. Hideki Katayama (RCSM, NIMS) “Corrosion Risk Prediction Map for Maintenance of Infrastructure”
16:40 - 18:00	Poster / Refreshment
18:00 - 19:30	NIMS Award Reception

Nov. 7

(Tue)

8:30 -

8:30 -	Registration
	Session 1: Deformation and Fracture
9:00 - 9:30	Invited Talk S1-1 Prof. Nobuhiro Tsuji (Kyoto University) “Possibilities of Advanced Steels Managing Both Ultra-High Strength and Large Ductility”
9:30 - 10:00	Invited Talk S1-2 Prof. Manabu Enoki (The University of Tokyo) “Microstructure Based Prediction/Design of Mechanical Properties and Damage Monitoring of Structural Materials”
10:00 - 10:30	Invited Talk S1-3 Prof. Masaki Tanaka (Kyushu University) “Understanding the Brittle-to-ductile Transition Based on Shielding Theory”
10:30 - 11:00	Poster / Coffee
11:00 - 11:30	Invited Talk S1-4 Associate Prof. Motomichi Koyama (Tohoku University) “Interactions among Hydrogen-transformation-crack in Metastable Austenitic Steels”
11:30 - 12:00	NIMS Talk S1-5 Dr. Akinobu Shibata (RCSM, NIMS) “Hydrogen-related Fracture in High-strength Martensitic Steels”
12:00 - 13:30	Lunch Break
	Session 2: High-temperature Materials
13:30 - 14:00	Invited Talk S2-1 Prof. Eiichi Sato (Institute of Space and Astronautical Science, JAXA) “Multi-material Designed Satellite Thruster through Ceramics/metal Dissimilar Joining”
14:00 - 14:30	Invited Talk S2-2 Prof. Yuichiro Koizumi (Osaka University) “Digital Twin Science of Powder Bed Fusion Metal Additive Manufacturing”
14:30 - 15:00	Invited Talk S2-3 Associate Prof. Yuhki Tsukada (Nagoya University) “Grain Boundary Segregation and Creep Rupture Strength of High-temperature Materials”
15:00 - 15:30	Poster / Coffee
15:30 - 16:00	NIMS Talk S2-4 Dr. Toshio Osada (RCSM, NIMS) “Development of Ni-based Superalloys for Jet Engine Applications”
16:00 - 16:30	NIMS Talk S2-5 Dr. Taisuke Sasaki (CMSM, NIMS) “On the Role of Atom Probe Tomography in Understanding of Microstructural Origin of High Strength in Metallic Alloys”
16:30 - 16:35	Oral Closing
16:35 - 19:00	Poster Session [Core Time 17:00~19:00]



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