

Program

June 26 (Tue)

16:00-18:00

Registration

18:00-20:00

Welcome reception

June 27 (Wed)

9:00-9:10

Open remark

9:10-9:50

O01 “Fundamental Understanding on Unique Mechanical Properties of Bulk Nanostructured Metals”

Nobuhiro Tsuji

Kyoto University, Japan

9:50 -10:30

O02 “Microstructure, Strengthening Mechanisms and Strength-structure Relationships in Cold-drawn Pearlitic Steel Wire”

Niels Hansen, Xiaodan Zhang, Andy Godfrey, Xiaoxu Huang

Technical University of Denmark, Risø Campus, Denmark

10:30-10:45

Coffee break

10:45 -11:25

O03 “Bulk Nano-grained Copper Embedded with Nanoscale Twins: Preparation, Microstructures and Tensile properties”

Nairong Tao, K. Lu

Institute of Metal Research, Chinese Academy of Sciences, China

11:25-12:05

O04 “Unusual Mechanical Properties of Bulk Nanostructured Fe-Ni-Co-Ti Alloys”

Tadahiko Furuta, Shigeru Kuramoto, Zenji Horita

Toyota central R & D Labs., Inc., Japan

12:05-13:00

Lunch

13:00-15:00

Poster Session (120 min)

15:00-15:15

Coffee break

15:15-15:55

O05 “Densification and Plastic Deformation of Metallic Powders in Severe Plastic Deformation”

Dong Jun Lee, Eun Yoo Yoon, **Hyoung Seop Kim**

Pohang University of Science and Technology, Korea

15:55-16:35

O06 “Physical and numerical simulation for evaluating the effect of large shear deformation on the evolution of microstructure”

Jun Yanagimoto, Sumio Sugiyama, Shuji Kawando, Akira Yanagida, Ismail Tirtom

The University of Tokyo, Japan

16:35-17:15

O07 “Application of the Hencky Strain to Large Simple-Shear Deformation”

Susumu Onaka

Tokyo Institute of Technology, Japan

June 28 (Thu)

9:00-9:40

O08 “Towards multifunctional bulk nanostructures: grain boundary structure and grain boundary diffusivity of severely strained alloys”

Gerhard Wilde

University of Münster, Germany

9:40 -10:20

O09 “Precipitation hardenable wrought magnesium alloys”

C. L. Mendis, T. Sasaki, B. Tilak, **K. Hono**

National Institute for Materials Science, Japan

10:20-10:35

Coffee break

10:35 -11:15

O10 “Enhancing Functional Properties of Bulk Nanostructured Materials”

Michael J. Zehetbauer

University of Vienna, Austria

11:15-11:55

O11 “Electron Tomography Observation of Grain Boundary/Dislocation Interactions: Technical Developments and an Application to a Mo Bicrystal”

Satoshi Hata, Yuki Chihara, Ryutaro Akiyoshi, Masatoshi Mitsuhashi, Ken-ichi Ikeda, Hideharu Nakashima

Kyushu University, Japan

12:00-13:00

Lunch

13:00-13:40

O12 “Formation and limitation of Bulk Nanograined Structures upon Application of High-Pressure Torsion”

Zenji Horita

Kyushu University, Japan

13:40-14:20

O13 “Nanocomposites and super saturated solid solutions generated by SPD”

R. Pippan, A. Bachmaier, A. Hohenwarter, O. Renk, G. Rathmayr, Y. Champion,
X. Sauvage

Erich Schmid Institute of Materials Science, Austrian Academy of Sciences, Austria

14:20-15:00

O14 “Pressure-Induced Phase Transformation Behavior in Pure Ti, Pure Zr, and Fe-Mn alloys
by High-Pressure Torsion Straining”

Yoshikazu Todaka, Nozomu Adachi, Hideyuki Sato, Masanori Iketani, Nobuhiro Tochigi,
Rintaro Ueji, Minoru Umemoto

Toyohashi University of Technology, Japan

15:00-15:15

Coffee break

15:15-15:55

O15 “Atomistic Deformation Mechanisms in Nanostructured Metals”

Ting Zhu

Georgia Institute of Technology, USA

15:55-16:35

O16 “Atomistic Modeling of Slow Dynamics in Nanocrystalline Metals”

Shigenobu Ogata, Yun-Jiang Wang, Guo-Jie J. Gao, Akio Ishii

Osaka University, Japan

16:35-17:15

O17 “Roles of Dislocation Emission from Grain Boundaries in Mechanical Properties of Bulk
Nanostructured Metals”

Tomotsugu Shimokawa, Masaki Tanaka, Kenji Higashida

Kanazawa University, Japan

18:30-20:30

Banquet

June 29 (Fri)

9:00-9:40

- O18 “Effects of post-process treatments on the structure and mechanical behavior of nanometals produced by plastic deformation”

Xiaoxu Huang

Technical University of Denmark, Risø Campus, Denmark

9:40 -10:20

- O19 “Effect of Grain Size in the Near to Submicron Regime on the Formation of Dislocation Arrangements During Plastic Deformation”

Andy Godfrey, Guomin Le, Chuanshi Hong, Grethe Winter, Xiaoxu Huang

Tsinghua University, China

10:20-10:35

Coffee break

10:35 -11:15

- O20 “The brittle-to-ductile transition in bulk nanostructured metals”

Masaki Tanaka, Kenji Higashida, Tomotsugu Shimokawa

Kyushu University, Japan

11:15-11:55

- O21 “Strengthening and Hydrogen Susceptibility of Ultrafine-Grained Steels Processed by High-Pressure Torsion”

Yoji Mine, Zenji Horita

Kumamoto University, Japan

11:55-12:00

Closing