

Organization, Australia)

14:00 - 14:15

Coffee Break

14:15 - 14:45

[IS6] Additive Manufacturing-Based Combinatorial Approach for Al-Si-Zn Interfacial Coating Layer to Improve Bonding Strength and Heat Transfer Performance in Wrought-cast Al Compound Casting
Seungjin NAM^{1,2}, Minsang KIM³, Sehoon KIM³, Seok Su SOHN², *Hyunjoo CHOI¹ (1. Kookmin Univ., Korea, 2. Korea Univ., Korea, 3. Korea Automotive Technology Institute, Korea)

14:45 - 15:15

[IS7] Fabrication of Composite Powders for Laser Additive Manufacturing
*Naoyuki NOMURA¹, Weiwei ZHOU¹, Mingqi DONG¹, Zhenxing ZHOU¹ (1. Department of Materials Processing, Graduate School of Engineering, Tohoku Univ., Japan)

15:15 - 15:45

[IS8] Enhanced Mechanical Performance of Duplex Stainless Steels via Dense Core-Shell Nano-Inclusions in-situ Formed upon Selective Laser Melting
*Haokai DONG¹, Jiantao ZHANG¹, Zhiyu XIAO¹ (1. South China Univ. of Technology, China)

15:45 - 16:00

Coffee Break

16:00 - 16:30

[IS9] L-PBF 3D Printing and Microstructural Control of Fe-Mn-Si based Shape Memory Alloy
*Wookjin LEE¹ (1. Pusan National Univ., Korea)

16:30 - 17:00

[IS10] Materials Integration for Laser Powder Bed Fusion Process
*Makoto WATANABE¹, Tomonori KITASHIMA¹, Masahiro KUSANO¹, Houichi KITANO¹, Kaita ITO¹, Sukeharu NOMOTO¹, Dmitry BULGAREVICH¹, Jun KATAGIRI¹ (1. National Institute for Materials Science, Japan)

17:00 - 17:30

[IS11] Solid-State Phase Transformations in Advanced High Strength Steels: Fundamentals and Alloy Design
*Hao CHEN¹, Zhigang YANG¹, Zongbiao DAI², Ran DING³, Haokai DONG⁴, Yan WANG¹ (1. Tsinghua Univ., China, 2. Xi'an Jiaotong Univ., China, 3. Tianjin Univ., China, 4. South China Univ. of Technology, China)

[IS] International Session (Day 2)
Cutting-Edge Science and Technology in Additive Manufacturing (2)

Date & Time: September 22, 2023, 10:30 - 17:35 JST

Venue: Room A

Chairpersons: Hyunjoo CHOI, Kookmin Univ., Korea (IS12, IS13, IS14)

Naoyuki NOMURA, Tohoku Univ., Japan (IS15, IS16)

Hyoung Seop KIM, POSTECH, Korea (IS17, IS18, IS19)

Yuichiro KOIZUMI, Osaka Univ., Japan (IS20, IS21, IS22)

- 10:30 - 11:00 [IS12] Bio-and Structural Material Applications of Additive Manufacturing Technology
*Byoungsoo LEE¹, Hyung Giun KIM¹, Yeonghwan SONG¹, Ohjung KWON¹, Gun-Hee KIM¹ (1. Functional Materials and Components R&D Group, Korea Institute of Industrial Technology, Korea)
- 11:00 - 11:30 [IS13] Control of Crystallographic Texture and the Related Material Properties via Metal Powder Bed Fusion
*Takuya ISHIMOTO^{1,2}, Aira MATSUGAKI², Ryosuke OZASA², Ozkan GOKCEKAYA², Takayoshi NAKANO² (1. Univ. Toyama, Japan, 2. Osaka Univ., Japan)
- 11:30 - 12:00 [IS14] Microstructure, and Mechanical Properties of in-situ Nano Oxide Reinforced CrMnFeCoNi High Entropy Alloy Matrix Composite Manufactured by Laser Powder Bed Fusion
*Kee-Ahn LEE¹, Young-Kyun KIM^{1,2}, So-Yeon PARK¹ (1. Inha Univ., Korea, 2. Korea Institute of Materials Science, Korea)
- 12:00 - 13:00 Lunch
- 13:00 - 13:30 [IS15] Development of High Strength Al-Si-Mg Powders for Additive Manufacture
*Chun-mu CHEN¹, Chi-San CHEN¹, Yu-Hsien CHOU¹, Hsin-Hwa CHEN¹ (1. Materials and Chemical Research Laboratories Industrial Technology Research Institute, Taiwan)
- 13:30 - 14:00 [IS16] Design of Aluminum Alloys for both High-Temperature Strength and Sufficient Printability of Laser Powder Bed Fusion
*Naoki TAKATA¹, Wenyuan WANG², Yue CHENG², TakanoBU MIYAWAKI², Asuka SUZUKI¹, Makoto KOBASHI¹, Masaki KATO³ (1. Nagoya Univ., Japan, 2. Nagoya Univ., Japan (Graduate Student), 3. Aichi Center for Industry and Science Technology)
- 14:00 - 14:15 Coffee Break

- 14:15 - 14:45 [IS17] Mitigating Gas Pores in Electron Beam Powder Bed Fusion
*Kenta YAMANAKA¹, Shoya AOTA¹, Haruko NUMATA¹, Yujie CUI¹, Yufan ZHAO¹, Manami MORI², Jérôme ADRIEN³, Eric MAIRE³, Damien FABRÈGUE³, Akihiko CHIBA^{1,4} (1. IMR, Tohoku Univ., Japan, 2. NIT Sendai Col., 3. INSA Lyon, France, 4. NICHe, Tohoku Univ., Japan)
- 14:45 - 15:15 [IS18] Post-Treatments of Laser Metal Deposited Inconel 738 LC Weld
H.W. CHEN¹, M.S. LEU², *J.K. CHEN³ (1. National Taipei Univ. of Technology, Taiwan (Graduate Student), 2. Industrial Technology Research Institute, Taiwan, 3. National Taipei Univ. of Technology, Taiwan)
- 15:15 - 15:45 [IS19] Opportunities and Challenges of Wire Arc Additive Manufacturing
*Huijun LI¹ (1. Univ. of Wollongong, Australia)
- 15:45 - 16:00 Coffee Break
- 16:00 - 16:30 [IS20] Progress of Material Extrusion Additive Manufacturing for Metal in Thailand
*Chanun SUWANPREECHA¹, Sukrit SONGKUEA¹, Siwat LINJEE¹, Suksan MUENGTO¹, Anchalee MANONUKUL¹ (1. National Metal and Materials Technology Center, National Sciences and Technology Development Agency, Thailand)
- 16:30 - 17:00 [IS21] Hetero-Microstructure Effect on the Mechanical and Corrosion Properties of Directed Energy Deposition-Processed Ti-Zr-Nb-Sn Alloy
*Jung Gi KIM¹, Yukyeong LEE¹, Shuanglei LI², Taekyung LEE³, Jeong Seok OH¹, Jun-Seob LEE⁴, Tae-Hyun NAM¹ (1. Gyeongsang National Univ., Korea, 2. Korea Inst. of Materials Science, Korea, 3. Pusan National Univ., Korea, 4. Changwon National Univ., Korea)
- 17:00 - 17:30 [IS22] Additive Manufacturing of Low Alloy Steel Parts by Laser Based Directed Energy Deposition
*Monideepa MUKHERJEE¹, Ajit Hanumant SHINDE¹, Vamsi Krishna BALLA², Mitun DAS² (1. R&D, Tata Steel, India, 2. CSIR- CGCRI, India)
- 17:30 - 17:35 Closing Address
* Hyoung Seop KIM, POSTECH, Korea (Vice President of KIM)
* Yuichiro KOIZUMI, Osaka Univ., Japan (Organizer of the International Session)