## The 3<sup>rd</sup> KIM-CSM symposium

# (On-line & Off-line Hybrid)

## 2022 October 26 (Wed), 2022, 09:30 ~ 16:10

## **Title : Recent Progress on Automotive Materials and its Application**

## **Preliminary Schedule**

2020.10.25.(Tue) 18:00~ 20:00 : Welcome dinner

## **\*Beijing Time**

- 2020.10.26. 09:30(08:30) ~ 09:40(08:40) : Welcome address (KIM & CSM President)
- 2020.10.26. 09:40(08:40) ~ 12:20(11:20) : Morning Session(Alloys)
- 2020.10.26. 12:20(11:20) ~ 13:40(12:40) : Lunch Break
- 2020.10.26. 13:20(12:40) ~ 16:00(15:00) : Afternoon Session(Applications)
- 2020.10.26. 16:00(15:00) Closing remark

2020.10.26.(Wed) 18:00 ~ 20:00 : Symposium Dinner

## **Recent Progress on Automotive Materials and its Application**

Technical program (2022. 10.26(WED)) \*( ) Beijing Time

09:30(08:30) ~ 09:40(08:40): Welcome address (KIM & CSM President)

(Alloys) Chairman : Hyoungwook Kim, Yongjun Li

- **09:40(08:40)** C5. Advanced Magnesium Alloy Material and Its Application, Li Yongjun, (GRIMAT Engineering Institute Co., Ltd.)
- **10:00(09:00)** K5. New magnesium alloy sheet with excellent corrosion resistance and stretch formability, Young Min Kim (Korea Institute of Materials Science)
- **10:20(09:20)** K8. **Development of high-strength, high-extrudability Mg alloys for transportation applications**, Sung-Hyuk Park (Kyungpook National University)
- **10:40(09:40)** C2. Achieving grain refinement of α-Al and Si modification simultaneously by La–B–Sr addition in Al–10Si alloys, Qun Luo,(Shanghai University)
- **11:00(10:00)** K2. Mechanism of ultrasound-induced microstructure modification in aluminum alloys, Jae-Gil Jung (Jeonbuk National University)
- 11:20(10:20) C3. Enhancing Strength and Ductility of Al-Si Based Casting Alloy by Synergizing Non-equilibrium Solidification and Subsequent Solid-state Transformations, Chen Yuzeng, (Northwestern Polytechnical University)
- **11:40(10:40)** K7. Advanced continuous casting technology of high strength aluminum alloys, Min-Seok Kim (Gachon University)
- 12:00(11:00) C7. The Pulse Magneto-Oscillation Homogenization Technique for the Solidification of Continuous Casting, Zhong Honggang, (Shanghai University)

12:20(11:20) ~ 13:40(12:40) : Lunch Break

(Applications) Chair man : Hongzhou Lu, Jae Hwang Kim,

- 13:40(12:40) C6. China's New Energy Vehicle Lightweight Technology Strategy and Progress, Xu Shiwei,(Hunan University)
- **14:00(13:00)** K3. Effects of cluster formation on two-step aging behavior in Al-Mg-Si alloy, Jae Hwang Kim (Korea Institute of Industrial Technology (KITECH))
- **14:20(13:20)** C1. Super-lightweight Truck Cargo-box and Wheels by Hot Stamping Technology, Lu Hongzhou,(CITIC Metal Co., LTD)
- 14:40(13:40) K1. Forming limit diagram predictions for magnesium alloys at elevated temperature using crystal plasticity, Hyuk Jong Bong (Korea Institute of Materials Science (KIMS))
- 15:00(14:00) K6. Analyses of automotive steel sheets using computer vision techniques on EBSD data, Jun-Yun Kang (Korea Institute of Materials Science)
- **15:20(14:20)** C4. Advances in Spot Joining Technologies of Lightweight Thin-walled Structures, Li Yongbing, (Shanghai JiaoTong University
- 15:40(14:40) K4. Microstructure and hydrogen embrittlement of Fe-17Mn alloy after friction stir welding, Seung-Joon LEE (Tech University of Korea)

## 16:00(15:00) Closing Remark

\* Above presentation schedule can be changed in final program

**Presentation Titles(CSM)** 

- C1. Super-lightweight Truck Cargo-box and Wheels by Hot Stamping Technology, Lu Hongzhou, (CITIC Metal Co., LTD)
- C2. Achieving grain refinement of α-Al and Si modification simultaneously by La–B–Sr addition in Al–10Si alloys, Qun Luo,(Shanghai University)
- C3. Enhancing Strength and Ductility of Al-Si Based Casting Alloy by Synergizing Nonequilibrium Solidification and Subsequent Solid-state Transformations, Chen Yuzeng,(Northwestern Polytechnical University)
- C4. Advances in Spot Joining Technologies of Lightweight Thin-walled Structures, Li Yongbing,(Shanghai JiaoTong University
- C5. Advanced Magnesium Alloy Material and Its Application, Li Yongjun, (GRIMAT Engineering Institute Co., Ltd.)
- C6. China's New Energy Vehicle Lightweight Technology Strategy and Progress, Xu Shiwei,(Hunan University)
- C7. The Pulse Magneto-Oscillation Homogenization Technique for the Solidification of Continuous Casting, Zhong Honggang, (Shanghai University)

#### **Presentation Titles(KIM)**

- K1. Forming limit diagram predictions for magnesium alloys at elevated temperature using crystal plasticity, Hyuk Jong Bong (Korea Institute of Materials Science (KIMS))
- K2. Mechanism of ultrasound-induced microstructure modification in aluminum alloys, Jae-Gil Jung (Jeonbuk National University)
- K3. Effects of cluster formation on two-step aging behavior in Al-Mg-Si alloy, Jae Hwang Kim (Koreal nstitute of Industrial Technology (KITECH))
- K4. Microstructure and hydrogen embrittlement of Fe-17Mn alloy after friction stir welding, Seung-Joon LEE (Tech University of Korea)
- K5. New magnesium alloy sheet with excellent corrosion resistance and stretch formability, Young Min Kim (Korea Institute of Materials Science)
- K6. Analyses of automotive steel sheets using computer vision techniques on EBSD data, Jun-Yun Kang (Korea Institute of Materials Science)
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