

Symposia – D04
Advanced light alloy

Oct. 15 (Sunday), 2023

Conference Room: 7113, -1# floor

09:00-09:05 Welcome speech, Bin Jiang

9:05-10:30 Session I
Chair: Zhihua Dong

9:05-9:30 (D04-01)
The mechanism in creep resistance of a die-cast MgREMnAl alloy (Keynote)
Shouxun Ji, Brunel University London, United Kingdom

9:30-9:50 (D04-02)
Development and application of low cost high performance HPDC Mg alloys (Invited)
Jiangfeng Song, Chongqing University, China

9:50-10:10 (D04-03)
Approaching a high-strength stainless magnesium alloy (Invited)
Yangxin Li, Shanghai Jiao Tong University, China

10:10-10:30 (D04-04)
Recent progress and development of corrosion-resistant magnesium alloys in additive manufacturing (Invited)
Zhuoran Zeng, Hunan University, China

10:30-10:40 Coffee Break

10:40-12:00 Session II
Chair: Shouxun Ji

10:40-11:05 (D04-05)
Texture modification and deformation of Mg alloy sheet (Keynote)
Bin Jiang, Chongqing University, China

11:05-11:25 (D04-06)
The development of heat-resistant aluminium alloys in quaternary eutectic system (Invited)
Isaac T.H Chang, Brunel University London, United Kingdom

11:25-11:45 (D04-07)
Significantly improved strength of a Mg-5Sn alloy through basal-prism combined precipitates and strengthening mechanisms (Invited)
Ying Zeng, Southwest Jiaotong University, China

11:45-12:05 (D04-08)
Understanding of the improved mechanical properties by alloying element segregation at grain boundary in Mg-Zn-Ca alloy (Invited)
Zhihua Dong, Chongqing University, China

12:05-14:00 Lunch

14:00-15:25 Session III
Chair: Jiangfeng Song

14:00-14:25 (D04-09)
Additive manufacturing of titanium alloys with exceptionally uniform mechanical properties (Keynote) Online
Mingxing Zhang, Queensland University, Australia

14:25-14:45 (D04-10)
Effect of Thickness on microstructures and Hydrogen Resistance of Al₂O₃/Y₂O₃ Composite Coating (Invited)
Qinghe Yu, China GRINM Group Co., Ltd., China

14:45-15:05 (D04-11)
Research progress on ultralight Mg-Li-Al-X alloy (Invited)
Yan Yang, Chongqing University, China

15:05-15:25 (D04-12)
Developing a novel high-strength Mg-Gd-Y-Zn-Mn alloy for laser powder bed fusion additive manufacturing process (Oral)
Qingchen Deng, Shanghai Jiao Tong University, China

15:25-15:40 Coffee break

15:40-18:00 Session IV
Chair: Qinghe Yu

15:40-16:00 (D04-13)
Grain size independence of cryogenic strain recovery behavior in high-Zr β -Ti alloy (Invited)
Bingjie Zhang, Northwest Institute for Nonferrous Metal Research, China

16:00-16:20 (D04-14)
Formation tendency and prediction model of shrinkage porosities in magnesium alloys: Insight from grain evolution (Invited)
Ang Zhang, Chongqing University, China

16:20-16:40 (D04-15)
Effect of titanium particles on microstructure and mechanical properties of magnesium alloy (Invited)
Jianbo Li, Chongqing University, China

16:40-17:00 (D04-16)

Atomic study of solute segregation and precipitation in $\{10\bar{1}2\}$ twin of Mg-Y-Ag alloy
(Invited)

Yu Zhang, Chongqing University, China

17:00-17:20 (D04-17)

On the excellent creep resistance in a cast RE-free Mg-Al-Ca-(Ti) alloy with Al₂Ca reinforcement (Oral)

Zhuang Cui, Jiangsu University, China

17:20-17:40 (D04-18)

Superior elevated-temperature strength of Mg-Y-Sn alloys with thermostable multi-scale precipitates and grain structure (Oral)

Shupeng Li, Southwest Jiaotong University, China

18:00 Dinner

