SEP. 11-13, 2026
Chengdu, China

2026 Asian Conference on Heat Treatment and Surface Engineering & The 15th China Heat Treatment Congress

2026亚洲热处理与表面工程会议 丨 第15届中国热处理活动周

Program & Extended Abstracts

Committee

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Prof. Li Helin [China] CNPC Tubular Goods Research Institute, Chinese Academy of Engineering

Prof. Li Jian [China] China Association of Senior Scientists and Technologists

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Prof. Zhao Zhenye [China] AECC Beijing Institute of Aeronautical Materials, Chinese Academy of Engineering

Prof. Zhou Kesong [China] Guangzhou Research Institute of Non-ferrous Metals, Chinese Academy of Engineering

Prof. Ju Dongying [China] Saitama Institute of Technology, Foreign Member of Academician of the Engineering Academy of Japan

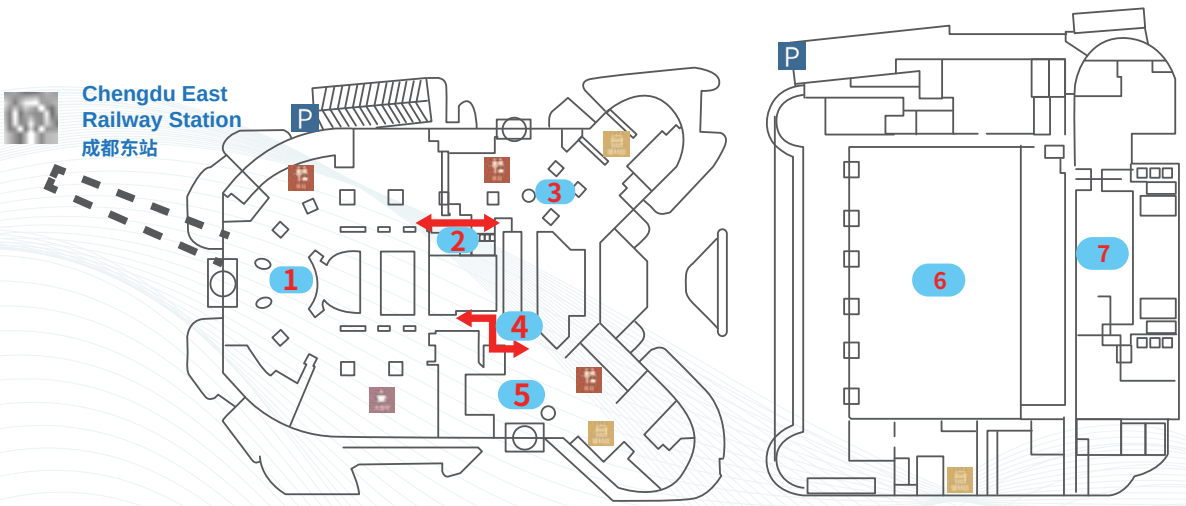
Prof. Yoichi Watanabe [Japan] Nihon Parkerizing Co., Ltd., Vice President of JSHT

Conference Information

Conference Venue

The Longemont Hotels Chengdu is the largest independent hotel group in China by far, which is ideally located the north exit of the Eastern Square of Chengdu East Railway Station - the No.1 comprehensive transportation hub in Southwest China. Hotel guests can access directly to the arrival floor of East Railway Station and Metro Station (Line 2 and Line 7) via the underground tunnel from the hotel B2. Right close to the 3rd Ring Road, 15km and 17 minutes to the world famous Giant Panda Breeding Research Base by car, only 16 minutes to Shuangliu International Airport by Cheng-Mian-Le high speed train.

成都龙之梦大酒店是目前中国规模最大的独立酒店集团，雄踞西南第一综合交通枢纽——成都东站东广场北出口的核心位置。酒店住客可从酒店 B2 层通过地下通道直达成都东站到达层与地铁站（2 号线、7 号线）。酒店紧邻三环路，驾车前往世界知名的大熊猫繁育研究基地仅 15 公里、17 分钟车程，乘坐成绵乐高铁前往双流国际机场仅需 16 分钟。



1 Longemont Hotels Foyer
龙之梦酒店大厅

2 Connecting Corridor (Longemont-YES)
龙之梦与雅仕之间连通走廊

3 YES INN
雅仕商务酒店

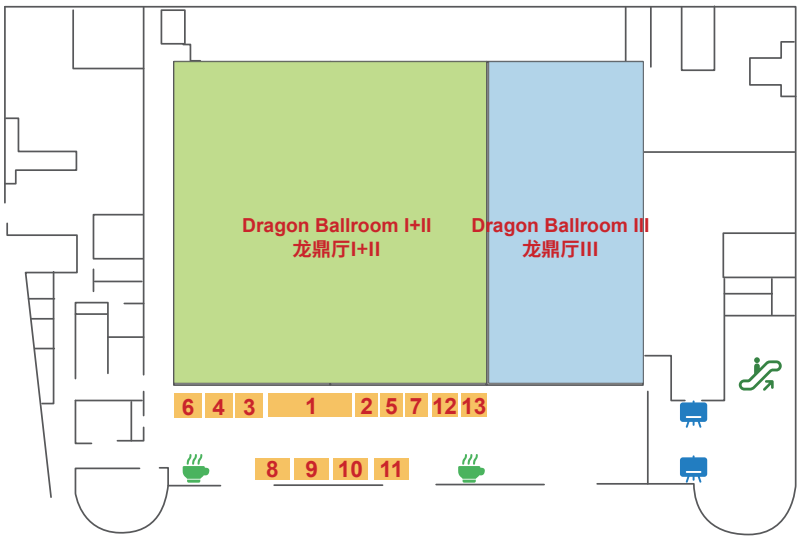
4 Connecting Corridor (Longemont-Rayfont)
龙之梦与瑞峰之间连通走廊

5 Rayfont Hotel
瑞峰国际酒店

6 Conferernce Center
会议中心

7 Rayfont Hotel & Apartment
瑞峰公寓酒店

1F Conference Center



1 Jiangsu Fengdong Thermal Technology Co., Ltd.

2 Metalco Aviation Technology Ltd.

3 Zhejiang Dongyuan Intelligent Manufacturing Co., Ltd.

4 Advanced Corporation for Materials and Equipments Co., Ltd.

5 Nanjing Kerun Lubricants Co., Ltd.

6 Beijing Huaxiang Vacuum Co., Ltd.

7 Zeming Thermal Engineering Equipment Co., Ltd.

8 TROJAN(Suzhou) Material Technology Co., Ltd.

9 Nanjing Kathmatic Technology Co, Ltd.

10 Chengdu Phadcalc Technology Co., Ltd.

11 Shanghai Zhongyan Co., Ltd.

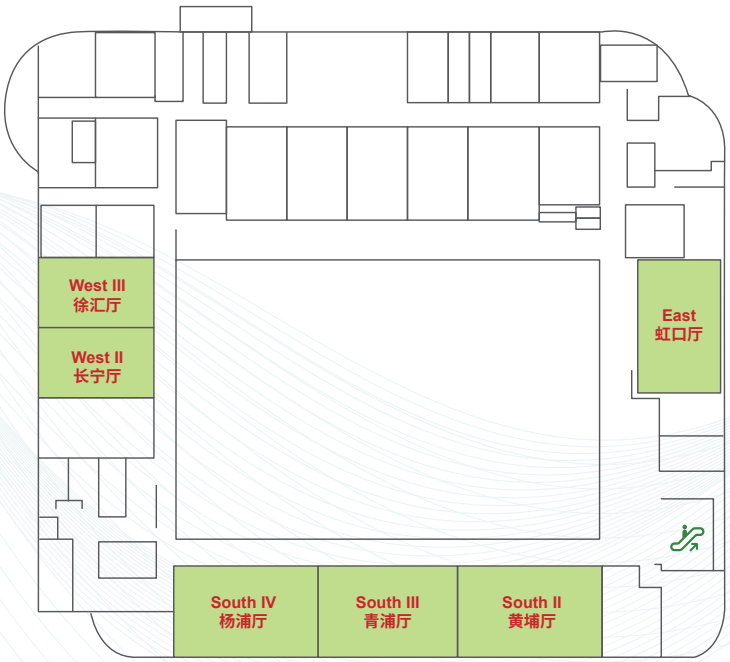
12 Xihua University

13 Southwest Jiaotong University

Coffee Break Area

Poster Area

2F Conference Center



General Information

1. **Plenary Lectures** will be allotted 30 minutes for presentation.
2. **Invited presentations** will be allotted 20 minutes for presentation.
3. **Oral presentations** will be allotted 15 minutes for presentation.
4. Laptops with MS PowerPoint installed will be provided in each room.Authors submitting applications for oral presentations shall send your PPT to the respective session secretaries before the session on September 13. Contact information for corresponding session secretaries is listed below:

- Session 1 (South II, 黄埔厅): Phase Transformation, Microstructure, Properties, and Characterization of Materials.
  Mr. Zhu Jia (+86 13641191545)
- Session 2 (South III, 青浦厅): Carburizing, Nitriding, and Chemical-thermo Treatment & Friction, Wear and Service Behavior of Materials & Heat Treatment Processes and Equipment Technology.
  Mr. Fu Haifeng (+86 13488845708)
- Session 3 (South IV, 杨浦厅): High-Performance Bearing Heat Treatment and Surface Engineering Technology.
  Ms. Liu Xin (+86 17710937738)
- Session 4 (West III, 徐汇厅): Laser Surface Modification and Additive Manufacturing & Advanced Welding and Heat Treatment Technology.
  Ms. Li Zhimei (+86 13691391738)
- Session 5 (West II, 长宁厅): Digitalization and Intelligentization Heat Treatment & Surface Coating and Plating Technology.
  Ms. Zhang Tian (+86 13810903682)
- Session 6 (East, 虹口厅): Thermal Spray and Cold Spray Technology & High-Temperature Thermal Protection Coatings.
  Ms. Han Yongzhen (+86 18310760722)

5. **Poster dimensions requirement and set-up procedures:** Authors are responsible for setting up their posters and collecting their poster afterwards. Scissors, pushpins or tapes will be provided on site. For any inquiries, please contact **Mr. Zhu Jia at +86 13641191545.**
6. **Buffet**

Day	Time	Place
September 11	17:30-20:00	3rd Floor, Longemont Western Restaurant
September 12	12:00-13:30	3rd Floor, Longemont Western Restaurant & Royfont Western Restaurant Note: Meal voucher valid only at designated restaurant.
	17:30-20:00	
September 13	12:00-13:30	

7. **Wireless Internet**

Free Wi-Fi is available for the conference participants in the conference venue. The Wi-Fi SSID is **"Longemont"** and the password is **lzm61280000**.

8. **Transportation**

Address: No. 8 Jialingjiang Rd., Chenghua Dist., Chengdu, Sichuan.

● **From Chengdu East Railway Station:**

The hotel is right next to the North Exit of the East Square of Chengdu East Railway Station, with a direct underground passage on Level B2 connecting to the arrival floor of the station. You can reach the hotel immediately after exiting the station.

● **From Chengdu Shuangliu International Airport:**

High-speed Rail: Take Chengdu-Mianyang-Leshan Express Railway directly to Chengdu East Railway Station. The whole journey takes only 16 minutes, and you can reach the hotel cluster directly via the underground passage after exiting the station.

Subway: Take Chengdu Metro Line 10 to Taipingyuan Station, then transfer to Line 7 to arrive at Chengdu East Railway Station.

Driving: The estimated travel time is approximately 30 minutes.

● **From Chengdu Tianfu International Airport:**

High-speed Rail: Take Chengdu-Yibin High-speed Railway directly to Chengdu East Railway Station. The whole journey takes about 27 minutes, and you can reach the hotel cluster directly via the underground passage after exiting the station.

Subway: Take Chengdu Metro Line 18 and transfer to Line 7 to arrive at Chengdu East Railway Station.

Driving: The estimated travel time is approximately 50 minutes.

Program at a Glance

September 11 (Fri.)		
10:00-22:00	Registration	Longemont Hotels Foyer 龙之梦酒店大厅
13:30-17:30	中国机械工程学会热处理分会 十二届三次委员（扩大）会议	会议中心龙鼎 III 厅
19:30-21:30	材料热处理大学生赛评委及指导 教师培训会议	
17:30-20:00	Buffet	3rd Floor, Longemont Western Restaurant & Royfont Western Restaurant 龙之梦 3 层西餐厅 & 瑞峰 3 层西餐厅
September 12 (Sat.)		
08:30-09:00	Opening Ceremony	Dragon Ballroom I and II, Conference Center 会议中心龙鼎 I+II 厅
09:00-12:00	Plenary Lectures	
12:00-13:30	Buffet	3rd Floor, Longemont Western Restaurant & Royfont Western Restaurant 龙之梦 3 层西餐厅 & 瑞峰 3 层西餐厅
13:30-16:30	Plenary Lectures	Dragon Ballroom I and II 会议中心龙鼎 I+II 厅
17:30-20:00	Buffet	3rd Floor, Longemont Western Restaurant & Royfont Western Restaurant 龙之梦 3 层西餐厅 & 瑞峰 3 层西餐厅
September 13 (Sun.)		
08:30-12:00	Oral Presentation Sessions / Poster Presentation Sessions	2nd Floor, Conference Center 会议中心二层
12:00-13:30	Buffet	3rd Floor, Longemont Western Restaurant & Royfont Western Restaurant 龙之梦 3 层西餐厅 & 瑞峰 3 层西餐厅
13:30-17:00	Oral Presentation Sessions / Poster Presentation Sessions	2nd Floor, Conference Center 会议中心二层

Warm Reminder 温馨提示：

1. Please set your mobile phones to silent mode. Smoking and loud noise are not permitted in the meeting room. Please keep your personal belongings secure.
   会议期间，请将手机设置为静音模式，会议室内禁止吸烟和大声喧哗，并保管好随身物品。
2. Please keep your meal voucher safe and present it when entering the restaurant.
   会议期间，请妥善保存餐券，进入餐厅时请出示餐券。
3. For the plenary lectures, please scan the QR code on the right to access the simultaneous interpretation service.
   请扫描右侧二维码收听大会报告同声传译。

Opening Ceremony & Plenary Lectures

Chair: Gu Jianfeng, Shanghai Jiao Tong University, Vice President of IFHTSE

08:30-09:00 Opening Ceremony

Chair: Wu Yucheng, Hefei University of Technology

01

Wang Huaming [China]

Beihang University
Academician of the Chinese Academy of Engineering

09:00-09:30

Laser Additive Manufacturing of High-Performance Titanium Alloy Key Components: Internal Quality Control and Strengthening-Toughening Heat Treatment

02

Sugimoto Tsuyoshi [Japan]

Asahikawa National College of Technology

09:30-10:00

The Evolution and Future of Heat Treatment Technology in the Era of AI and Automotive Electrification

Chair: Cheng Xiaonong, Jiangsu University

03 **Lu Jian** [France]

City University of Hong Kong

10:00-10:30

Recent Development of Advanced Material via Additive Manufacturing and Heat Treatment

04 **Heung Nam Han** [Korea]

Seoul National University

10:30-11:00

From Heat to Charge: Electric Current/Charge - Enhanced Phase Transformation for Sustainable Electrification of Materials Processing

Chair: Ren Ruiming, Dalian Jiaotong University

05 **Xu Wei** [China]

Northeastern University

11:00-11:30

AI for Materials: 3D Printing of Superalloys

06 **Song Kexing** [China]

Henan Academy of Sciences

11:30-12:00

Microstructure and Property Regulation of Copper Alloys and Its Engineering Application

12:00-13:30 Buffet, 3rd Floor, Longemont Western Restaurant & Royfont Western Restaurant
自助餐，龙之梦 3 层西餐厅 & 瑞峰 3 层西餐厅

Chair: Wang Yujing, Harbin Institute of Technology

07

Gu Jiangfeng [China]

Shanghai Jiao Tong University
Vice President of IFHTSE

13:30-14:00

Green and Intelligent Heat Treatment Empowered by Integrated Computational Materials Engineering (ICME) and Artificial Intelligence (AI)

08

Marcel A. J. Somers [Denmark]

Technical University of Denmark, Denmark
Executive Committee Member of IFHTSE

14:00-14:30

Thermochemical Surface Engineering of Stainless Steels for Innovative Materials Solutions

09

Cui Hongzhi [China]

Ocean University of China

14:30-15:00

Design of Extreme Environment Resistant Corrosion-Wear Resistant Materials and Development of Protection Technologies

Chair: Wang Qing, Dalian University of Technology

10

Huang Mingxin [China]

The University of Hong Kong
Fellow of the Hong Kong Academy of Engineering

15:00-15:30

Advances in Frontier Research of Ultrahigh Strength Steel

11

Yao Jianhua [China]

Zhejiang University of Technology

15:30-16:00

Research Progress on Energy Field Hybrid Laser Surface Modification Technology

12

Huang Xiaoxu [China]

Chongqing University

16:00-16:30

Multi-Dimensional and Multi-Scale Characterization and Strengthening Mechanisms of Metals

17:30-20:00 Buffet, 3rd Floor, Longemont Western Restaurant & Royfont Western Restaurant
自助餐，龙之梦 3 层西餐厅 & 瑞峰 3 层西餐厅

★ ——Invited Presentation

Phase Transformation, Microstructure, Properties, and Characterization of Materials

South II, 2nd Floor, Conference Center（会议中心二层，黄埔厅）
Chairs: Prof. Zhang Yi, Henan University of Science and Technology
Prof. Liu Cheng, Yangzhou University

No.	Time	Title, Author(s), Affiliation(s)
1	08:30-08:50	**★ Controlling Carbide Precipitation during Tempering in Fe-C Martensitic Steels through Mn Distribution and Martensitic Lath Width** Xiong Zhiping, Chen Q., Chen C., Cheng X.W. Beijing Institute of Technology
2	08:50-09:05	**Selective Carbide Evolution Mediated by Electric Current-Induced Athermal Effects at Phase Interfaces** Yijae Kim, Siwhan Lee, Tae-Hyeok Kang, Junyoung Chae, Dongin Choi, Howook Choi, Pyuck-Pa Choi, Kyeongjae Jeong, Heung Nam Han Seoul National University
3	09:05-09:20	**Effect of Acicular α Phase on Fatigue Crack Growth of a Biomedical β Titanium Alloy** Liu Yuancai, Song Xiu, Wang Lei, Liu Yang, Niinomi Mitsuo, Cheng Jun Northeastern University
4	09:20-09:35	**Deep Cryogenic Treatment of a Novel Low-Density High Chromium Cast Iron and Microstructure-Hardness Evolution** Xie Zipeng, Wang Yongjin, Song Renbo University of Science and Technology Beijing
5	09:35-09:55	**★ Hot Isostatic Pressing of Powder Metallurgy Titanium and Nikel-based Alloys: Microstructure and Mechanical properties** Guo Ruipeng, Cheng Min, Xu Lei Taiyuan University of Technology
6	09:55-10:15	**★ Developing Novel High-temperature Soft-magnetic B2-based Multi-principal Element Alloys with Coherent Body-centered-cubic Nanoprecipitates** Wang Zhenhua, Wang Qing Dalian University of Technology
7	10:15-10:30	**Prediction of Distortion and Hardness Using Position-Dependent Temperature Profiles during High-Pressure Gas Quenching in Vacuum Furnace** Gi-Hoon Kwon, Ilsu Park, Kyoung Jun An, ByoungHo Choi, Kwang-Jin Choi, Kyoung Il Moon Korea Institute of Industrial Technology

No.	Time	Title, Author(s), Affiliation(s)
8	10:30-10:45	**Unraveling Recrystallization Behavior of Potassium Doped Tungsten via Isochronal Annealing: Deformation and Bubble Morphology Interplay** Liang Mengxia Xihua University
9	10:45-11:00	**Effects of Precipitates on the Strength-Ductility Trade-off of Mg-Gd-Based Alloys and Approaches for Property Regulation** Tang Changping Hunan University of Science and Technology
10	11:00-11:15	**Effect of Carbides on Crack Propagation in Quenching-Tempering Steels** Yang Yuchen, Zheng Hongqing, Zuo Xunwei, Wan Jianfeng, Rong Yonghua, Chen Nailu Shanghai Jiao Tong University
11	11:15-11:30	**Adiabatic Shear Behavior of W-containing High-entropy Alloys with High Strength-plasticity Synergy over a Wide Range of Strain Rates** Liu Haiyang, Wang Qing Dalian University of Technology
12	11:30-11:45	**Study on Surface Gradient Microstructure, Thermal Stability and Hardness Strain Relationship of Axle and Wheel Steels Subjected to Severe Plastic Deformation** Gao Xinhuan, An Tao, Gao Wei, Zhao Hai, Zhao Sa, Fan Mingzhe, Liu Pengtao, Ren Ruiming Dalian Jiaotong University
13	11:45-12:00	**Effect of Temperature on Impact Properties and Fracture Characteristics of HB500 Grade Low-alloy Steel** Li Kai, Peng Mingjun, Wang Maoqiu, Yu Wenchao Kunming University of Science and Technology
12:00-13:30		Buffet, 3rd Floor, Longemont Western Restaurant & Royfont Western Restaurant 自助餐，龙之梦 3 层西餐厅 & 瑞峰 3 层西餐厅

Phase Transformation, Microstructure, Properties, and Characterization of Materials

South II, 2nd Floor, Conference Center（会议中心二层，黄埔厅）
Chairs: Prof. Xiong Zhiping, Beijing Institute of Technology
Prof. Yuan Zhizhong, Jiangsu University

No.	Time	Title, Author(s), Affiliation(s)
13	13:30-13:50	★ **Influence of Heat Treatment on the Microstructure and Mechanical Properties of MA6000** Che Hongyan, Zhai Yazhong, Wei Jiayu Research Institute of Special Steels, Central Iron and Steel Research Institute Co., Ltd.
14	13:50-14:10	★ **Improving Fatigue Properties of Normal Direction Ultrasonic Vibration Assisted Face Grinding Inconel 718 by Regulating Machined Surface Integrity** Zhang Yuan China Academy of Engineering Physics
15	14:10-14:30	**Effect of Solution Temperature on Microstructure and Tensile Properties of Ti-5Al5Mo5V3Cr1Zr Alloy** Huang Feiyu, Huang Chaowen Guizhou University
16	14:30-14:45	**Concurrent Doping Effect of Citric Acid and TiB2 on Current Carrying Capacity of MgB_2 Bulk** Li Chun' guang, Li Shulong, Liu Yutong, Cui Guodong, Zhao Yong, Chen Junying Southwest Jiaotong University
17	14:45-15:00	**Analysis of Phase Transformation Kinetics of GCr18Mo Steels in Arbitrary Cooling Paths** Ma Wenbo, Zhang Yanxiang, Yan Mufu Harbin Institute of Technology
18	15:00-15:20	★ **Effect of Heat Treatment on Microstructure and Properties of FB2 Martensitic Heat-Resistant Steel for Supercritical Power Generation** Guan Dengga, Yan Han, Luo Xing, Qiang Kehao, Liu Guanzhang, Zhao Shan Chengdu University of Technology
19	15:20-15:40	★ **Cold Rolling Enables Nano-twinned Austenitic Steel with Remarkable TRIP Assisted Strain Hardening Capability** Yuan Jiahua, Wang Chenchong, Wang Lingyu, Xu Wei Northeastern University

No.	Time	Title, Author(s), Affiliation(s)
20	15:40-16:00	★ **Developing Novel Low-density High-entropy Superalloys with High Strength and Superior Creep Resistance Guided by Automated Machine Learning** Li Yancheng, Xia Zhihui, Wang Qing, Dong Chuang China Academy of Engineering Physics
21	16:00-16:15	**Phase Engineering of Noble Metal-based Nanomaterials** Wang Jie Xihua University
22	16:15-16:30	**Overcoming the Intermediate-temperature Embrittlement of High-strength Ni-Co-base wrought superalloy via C Addition** Zhang Yao, Wang Qing Dalian Jiaotong University
23	16:30-16:45	**Interface Engineering via in-situ SiO_2 Growth for Optimized Electromagnetic Performance in FeSi Soft Magnetic Composites** Miao Yinbao, Zhou Ronghua, Xu Jia, Liu Xin Institute of New Materials, Guangdong Academy of Sciences
24	16:45-17:00	**Parameter Optimization of Frictional Thermal Progressive Forming Process of AZ31B Magnesium Alloy Based on GABP and NSGA-II** Jiang Xu, Zhao Jiaxiang, Li Rui, Pang Mengyao, Ning Huiyan, Bi Fengyang, Zhang Xiaochen Heilongjiang Institute of Technology
25	17:00-17:15	**Analysis of the Mechanism of Deep Rolling Modification and Damage Tolerance Evaluation of EA4T Railway Axles** Wang Chengye, Lin Xue, Liu Shengyao, Gao Jiewei, Zhang Yingkang, Zhang Junfu Xihua University
26	17:15-17:30	**Influence of αp and Transformed β Microstructural Characteristics on Hetero-deformation Induced Strengthening in Equiaxed Ti-6Al-4V Alloy** Lan Deyi, Liang Yu Guizhou University
27	17:30-17:45	**Low-Temperature Impact Damage and Residual Fatigue Strength of the Induction-Hardened Layer in S38C Railway Axle Steel** Zhang Hansong, Gao Jiewei, Peng Xu, Han Jing Xihua University

Carburizing, Nitriding, and Chemical-thermo Treatment & Friction, Wear and Service Behavior of Materials

South III, 2nd Floor, Conference Center（会议中心二层，青浦厅）
Chairs: Prof. Liu Ruiliang, Harbin Engineering University
Prof. Guo Biao, Xihua University
Prof. Xu Xiaojun, Southwest Jiaotong University

No.	Time	Title, Author(s), Affiliation(s)
1	08:30-08:50	★ **Resource-Efficient Heat Treatment of Cr–Mo–V Hot-Work Tool Steels: Nitrogen-Dependent Carbide Stability and Hardness–Toughness Balance** Jing-Chun Yang, Chih-Yuan Chen, Yung-Chang Kang National Taipei University of Technology
2	08:50-09:05	**Study on Defect Control and Process Optimization of Gas Nitrocarburizing for SPCC Bearing Cages** Wang Jiatian, Yang Zhenggui, Zhang Zhichong Jiangsu Fengdong Thermal Technology Co., Ltd.
3	09:05-09:20	**Microstructure and Properties of Low-Temperature Plasma Carburized Layer on AISI 431 Martentsitic Stainless Steel** Shi Yu, Yi Bing, Liu Ruiliang Harbin Engineering University
4	09:20-9:35	**Carburized Functional Layer Formation and Quenching Micro-distortion Mechanism of Aermet100 Steel Components** Li Tao, Li Lingze, Yan Mufu Harbin Institute of Technology
5	09:35-09:50	**Rare Earth (La)-Enhanced Plasma Nitriding of 2205 Duplex Stainless Steel: Microstructure, Wear and Corrosion Resistance** Fan Chengyu, Wang Siyu, You Yuan, Zhang Yanxiang, Yan Mufu Qiqihar University
6	09:50-10:10	★ **Effect of Annealing Temperature on Microstructure, Hardness, and Tribological Properties of Copper-MAX Phase-graphite Composites** Qin Yongqiang, Liang Hao, Wang Yuhang, Huang Xuan, Qiu Tianxu, Luo Laima, Wu Yucheng Hefei University of Technology
7	10:10-10:25	**Correlation between Nitrogen Content and Corrosion Resistance in Graded Nitrogen-containing Austenitic Stainless Steel** Zhang Zhuoran, He Yun, Zhang Xinyu, Zhou Chen, Shi Yousen, Wang Bo Shanghai University

No.	Time	Title, Author(s), Affiliation(s)
8	10:25-10:40	**Plasma Nitriding Equipment and Process for Microstructure Control of the Nitrided Layer in SKD11 Steel** Song Xuefeng, Xu Zhibin, Wang Siqing Qingdao Fengdong Heat Treatment Co., Ltd.
9	10:40-10:55	**Investigation on Fretting Wear Behavior of EA4T Railway Axle with Double Gradient Modified Layer** Fan Jiahao, Gao Jiewei, Xia Weicheng, Zhang Junfu Xihua University
10	10:55-11:10	**In-situ Cr2N Precipitation via Urea-assisted Sintering Enhances Strength and Wear Resistance at Room Temperature in CoCrFeMnNi HEAs** Liu Xinyu, Jiang Xin Southwest Jiaotong University
11	11:10-11:25	**Microstructure and Properties of Pure Sliding Wear Surface Layer of CL60 Wheel Steel Under Different Contact Stresses** Zhao Shuai, Zhang Guanzhen, An Tao, Gao Wei, Zhao Hai, Liu Pengtao, Ren Ruiming Dalian Jiaotong University
12	11:25-11:40	**Laser-Activated Anodic Oxide for Direct Electroless Ni–P Deposition and Enhanced Tribological Performance** Li Jinjie, Yang Tao, Wu Jianbo, Vladimir Levchenko Taizhou University
12:00-13:30		Buffet, 3rd Floor, Longemont Western Restaurant & Royfont Western Restaurant 自助餐，龙之梦 3 层西餐厅 & 瑞峰 3 层西餐厅

Heat Treatment Processes and Equipment Technology

South III, 2nd Floor, Conference Center（会议中心二层，青浦厅）
Chairs: Prof. Eng. Han Boqun, Jiangsu Fengdong Thermal Technology Co., Ltd.
Prof. Zeng Aiqun, Zhejiang Dongyuan Intelligent Manufacturing Co., Ltd.

No.	Time	Title, Author(s), Affiliation(s)
13	13:30-13:50	★ **Technology and Application Research of Vertical Double-Chamber Vacuum Low Pressure Carburizing and High-Pressure Gas Quenching Equipment** Ma Weidong Advanced Coporation for Materials and Equipments (ACME)
14	13:50-14:10	★ **Surface Strengthening of Rails Using an Ultra-Long Laminar Plasma Jet: Technology and Engineering Applications** Xu Jingmang Southwest Jiaotong University

No.	Time	Title, Author(s), Affiliation(s)
15	14:10-14:30	★ **Fatigue Failure of High-speed Railway Axles and Anti-fatigue Surface Modification Techniques for Full Life Cycle** Gao Jiewei, Lin Xue, Zhang Junfu Xihua University
16	14:30-14:45	**Numerical Simulation and Industrial Validation of Heat Treatment for Die Steel Used in Integrated Die Casting of Automotive Structural Components** Zuo Pengpeng, Li Junwan, Wu Xiaochun Jiangsu University of Science and Technology
17	14:45-15:00	**Structural Optimization and Research on Control Technology of Large Multi-Zone Vacuum Annealing Furnace** Zhang Huanze, Lu Wenlin, Cong Peiwu, Sun Zhentian, Ma Jingbo China Academy of Machinery Beijing Research Institute of Mechanical & Electrical Technology Co., Ltd.
18	15:00-15:15	**A Fully Automatic Induction Hardening Equipment for the Surface of High-Speed Railway Axles** Chen Jialei, Gao Jiewei, Li Fengyi, Wang Hao, Zhang Junfu Xihua University
19	15:15-15:30	**Precise Temperature and Nitrogen Potential Control System for Horizontal Nitriding Furnace** Ma Feng, Gao Binbin, Han Boqun Jiangsu Fengdong Thermal Technology Co., Ltd.
20	15:30-15:50	★ **Green Energy-Saving Aluminum Alloy Heat Treatment Equipment and Its Applications for Automobile Lightweight** Han Boqun, Zhu Wenming Jiangsu Fengdong Thermal Technology Co., Ltd.
21	15:50-16:05	**Study and Analysis on the Effect of Stirring Rate on Quenching Cooling Effect** Zhu Hua, Han Bing, Xue Jianming Nanjing Kerun Lubricants, Co., Ltd.
22	16:05-16:20	**Research on Key Process Technology of High-Precision Induction Hardening of Ball Screws** Ma Yunchen, Liang Xiao, Fu Yiran, Zhang Wenliang, Sun Lizhuang, Luo Lei, Lv Qi, Zhou Qingkun, Xia Yalun, Su Yanqing Harbin Institute of Technology
23	16:20-16:35	**Gas Quenching Process Optimization for Variable-Wall-Thickness Thin Walled Workpieces Based on Response Surface Methodology and Particle Swarm Optimization** Pan Zixuan, Cong Peiwu, Lu Wenlin, Ma Jingbo China Academy of Machinery Beijing Research Institute of Mechanical and Electrical Technology Co., Ltd.
24	16:35-16:50	**Study on the Stability of Cooling Performance of Quenching Oils** Meng Xiangbing, Lou Zhihua Shandong Sencro Industrial Media Co., Ltd.

High-Performance Bearing Heat Treatment and Surface Engineering Technology

South IV, 2nd Floor, Conference Center（会议中心二层，杨浦厅）
Chairs: Prof. Wang Pei, Institute of Metal Research, Chinese Academy of Sciences
Prof. Ren Ruiming, Dalian Jiaotong University
Prof. Tan Zunli, Beijing Jiaotong University

No.	Time	Title, Author(s), Affiliation(s)
1	08:30-08:50	★ **Investigation into the Formation Mechanism of Nanostructured White Etching Areas in High-Carbon Steel Rolling Elements of Insulated Bearings** Ren Ruiming Dalian Jiaotong University
2	08:50-09:10	★ **Research Progress on Laser Surface Strengthening of Wind Turbine Bearings** Zhang Qunli Zhejiang University of Technology
3	09:10-09:30	★ **Bainite Regulation and Optimization in Martensite-bainite Bearing Steel and its Tribological Performance** Fu Lihua Henan University of Science and Technology
4	09:30-09:45	**Study on High-Temperature Nitriding and Carbo-Nitriding** An Junqi Xi' an Beiheng Material Technology Co., Ltd.
5	09:45-10:00	**Research on the Performance of Thermal Sprayed Coatings for Insulating Bearings** Rong Zhen China Machinery Kaibo Surface Technology Jiangsu Co., Ltd.
6	10:00-10:20	★ **Exceptional Hardness-toughness Synergy Through Heterostructure Design via an Ordered Multistep Transformation in Bearing Steel** Wang Pei Institute of Metal Research, Chinese Academy of Sciences
7	10:20-10:40	★ **Research on Gradient Nanostructure-Enabled Surface Strengthening and Toughening of High-Performance Bearings** Yin Fei Wuhan University of Technology
8	10:40-11:00	★ **Research on Lubrication Performance of Liquid Metal Bearings for CT Tubes** Huang Shuai Hunan University

No.	Time	Title, Author(s), Affiliation(s)
9	11:00-11:15	**Effect of Optimized Quenching Process on Microstructural Homogeneity and Service Performance of 52100 Bearing Steel** Liu Tengyuan Institute of Metal Research, Chinese Academy of Sciences
10	11:15-11:30	**Forward Development and Application of High-Performance Quenching Oil for Thin-Wall Bearings** Wang Tao Nanjing Kerun Lubricants, Co., Ltd.
12:00-13:30		Buffet, 3rd Floor, Longemont Western Restaurant & Royfont Western Restaurant 自助餐，龙之梦 3 层西餐厅 & 瑞峰 3 层西餐厅

High-Performance Bearing Heat Treatment and Surface Engineering Technology

South IV, 2nd Floor, Conference Center（会议中心二层，杨浦厅）
Chairs: Prof. Eng. Wu Qiong, Wafangdian Bearing Group Co.,Ltd.
Prof. Wang Feng, Wuhan University of Technology
Prof. Hu Jun, Northeastern University

No.	Time	Title, Author(s), Affiliation(s)
11	13:30-13:50	**★ Surface Control Technology for Ultra-High Strength Coating-Free Hot-Forming Steel** Hu Jun Northeastern University
12	13:50-14:10	**★ Combined Effect of Ce Addition and Intercritical Treatment on Bainitic Transformation Rate and Toughness for Low-Temperature Bainitic Steel** Tan Zunli Beijing Jiaotong University,China
13	14:10-14:30	**★ Multi-field Regulation of Multi-scale Microstucture for High Performance Bearings** Wang Feng Wuhan University of Technology
14	14:30-14:45	**Effects of Low and High Temperature Tempering on Microstructure and Properties of High-Nitrogen Bearing Steel** Sun Mengli Wuhan Institute of Shipbuilding Technology

No.	Time	Title, Author(s), Affiliation(s)
15	14:45-15:00	**The Effect of QPQ and PVD Composite Treatment on the Properties of M50 Bearing Steel** Wei Jue, Wang Qiang, Wen Can, Gan Qianrong, Yao Xiaozhou Chengdu Tool Research Institute Co., Ltd.
16	15:00-15:15	**Investigation into the Formation Mechanism of Nanostructured White Etching Areas in High-Carbon Steel Rolling Elements of Insulated Bearings** Wang Jianan, Zhang Guanzhen, Wu Qiong, Pan Jinzhi, Xue Xiuhui, Ren Ruiming Dalian Jiaotong University
17	15:15-15:30	**Formation Mechanism of Fatigue-Induced Nanolaminated Structures within Low-Angle White Etching Bands in GCr15 Bearing Steel** Cheng Shengli Institute of Metal Research, Chinese Academy of Sciences
18	15:30-15:45	**Carbon Profile Prediction and Stepwise Parameter Identification for Low-Pressure Pulse Carburizing of 15Co18Ni10Cr4MoE Steel** He Yin, Zeng Xijun, Chi Zhiyu, Li Liqun, Wang Feilong, Meng Xiaoli, Ma Xinxin Harbin Institute of Technology
19	15:45-16:00	**High Wear and Impact Resistance Gradient Multiphase Heat Treatment of Bearings for New Energy Vehicle Drive Motors** Lu Yunbin Wuhan University of Technology
20	16:00-16:15	**Excellent Mechanical Properties of Nb-V Co-Diffusion Layer with Gradient Microstructure Prepared by Pack-Cemention Method on GCr15 Steel** He Shuke Liaoning University of Technology

Laser Surface Modification and Additive Manufacturing & Advanced Welding and Heat Treatment Technology

West III, 2nd Floor, Conference Center（会议中心二层，徐汇厅）
Chairs: Prof. Hu Shubing, Huazhong University of Science and Technology
Prof. Li Bo, Zhejiang University of Technology

No.	Time	Title, Author(s), Affiliation(s)
1	08:30-08:50	★ **Microstructure and Properties of Laser Cladded AlCoCrNix High-Entropy Alloy Coatings** Hu Shubing, Tian Jingjing, Liu Jiyuan, Chen Yefei, Huang Yixuan, Zhang Shuo Huazhong University of Science and Technology
2	08:50-09:10	★ **Research on Laser Hardening Processes Using a Scanning Focused Laser Beam** Anyakin Mykola, He Jinwen, Xiang Siyuan, Chen Zhijun, Zhang Qunli, Yao Jianhua, Stepura Oleksandr National Technical University of Ukraine
3	09:10-09:30	★ **Effects of Fiber Laser Cutting Parameters on Heat-Affected Zone Width of STKR490 ERW Structural Steel** Chutimon Makee, Pusit Mitsomwang, Usanee Kitkamthorn, Rattana Borrisutthekul Suranaree University of Technology
4	09:30-09:45	**Influence Mechanism of Laser Repairing Molten Pool Morphology under Electromagnetic Force Effect** Hu Yong, He Jiachen, Li Bo, Wang Liang, Yao Jianhua Zhejiang University of Technology
5	09:45-10:00	**Study on Welding and Heat Treatment of New 7xxx Series Rare-Earth Wire Materials** Sun Guorui, Chen Chao Jilin University
6	10:00-10:20	★ **Study on the Microstructure and Friction Properties of 1CrMo Coating Deposited by Supersonic Laser Deposition on HT700 Superalloy** Li Bo, Wang Chenqing, Wang Haopeng, Zhang Qunli, Yao Jianhua Zhejiang University of Technology
7	10:20-10:40	★ **High Strength and Good Ductility of 7075/6061 Fusion Welded Joints Achieved by Using Nano Modified Filler Wire and Composite Post-weld Treatment Combining Laser Shock Peening and Heat Treatment** Chi Yuanqing, Liu Weiqing, Zhang Yongkang Guangdong University of Technology

No.	Time	Title, Author(s), Affiliation(s)
8	10:40-11:00	★ **Laser Surface Modification of POE-Based Photovoltaic Laminates: Surface State Evolution from Encapsulant Residues to Silicon Exposure** Tofil Szymon, Lin Shuyang, Zhang Qunli Kielce University of Technology, Poland
9	11:00-11:15	**Surface Repair and Remanufacturing of EA4T Axle Steel by Ultra-High Speed Laser Cladding: Process-Window Optimization and Fatigue Verification** Ji Dongdong, Zhan Jiwang, Liu Yan, Huang Jie, Li Renhui, Xu Junsheng Southwest Jiaotong University
10	11:15-11:30	**In Situ Characterization of Microstructure and Mechanical Properties of Laser Melting Deposited TiBw/Ti-6Al-4V Titanium Matrix Composites** Wu Yaya, Guo Anan, Xie Lechun Wuhan University of Technology
11	11:30-11:45	**Defect Formation Mechanisms and Mitigation Strategies in Laser Cladding of Ultra-Hard Alloy Coatings** Wang Canming Shandong University of Science and Technology
11:30-11:45		Buffet, 3rd Floor, Longemont Western Restaurant & Royfont Western Restaurant 自助餐，龙之梦 3 层西餐厅 & 瑞峰 3 层西餐厅

Laser Surface Modification and Additive Manufacturing & Advanced Welding and Heat Treatment Technology

West III, 2nd Floor, Conference Center（会议中心二层，徐汇厅）
Chairs: Prof. Cao Rui, Lanzhou University of Technology
Prof. Chen Xizhang, Wenzhou University

No.	Time	Title, Author(s), Affiliation(s)
12	13:30-13:50	★ **Joining, Fracture, and Crack Healing in a Ni60A Hardfacing Layer via Hot Isostatic Pressing Diffusion Bonding** Cao Rui Lanzhou University of Technology
13	13:50-14:10	★ **Wire Arc Additive Manufacturing and Heat Treatment of Rare-Earth High Strength Aluminum Alloys** Chen Chao Jilin University

No.	Time	Title, Author(s), Affiliation(s)
14	14:10-14:25	**Coaxial Laser-Wire Additive Manufacturing** Wang Jianfeng Nanjing University of Aeronautics and Astronautics
15	14:25-14:40	**Structural Homogenization and Comprehensive Performance Enhancement of Additively Manufactured Composites** Zhang Daxing, Han Yongquan, Sun Zhenbang Inner Mongolia University of Technology
16	14:40-14:55	**Mechanisms of Morphology-Energy Coupling and Temperature Field Uniformity in Solid-State Phase Transformation by Arrayed Laser Spots on the Complex Components** Xiang Siyuan, Zhang Qunli, Chen Zhijun, Yao Jianhua Zhejiang University of Technology
17	14:55-15:10	**Development and Application of a Vacuum Welding Protection Chamber for High-Precision Joining of Advanced Materials** Ma Yongshuo Beijing Huaxiang Vacuum Co., Ltd., Beijing

Digitalization and Intelligentization Heat Treatment & Surface Coating and Plating Technology

West II, 2nd Floor, Conference Center（会议中心二层，长宁厅）
Chairs: Prof. Shi Wei, Tsinghua University
Prof. Li Mengnie, Kunming University of Science and Technology
Prof. Wang Bo, Shanghai University
Prof. Wang Yuhui, Yanshan University

No.	Time	Title, Author(s), Affiliation(s)
1	08:30-08:50	★ **Development and Application of a Physics-Informed Neural Network for Heat Treatment Process Modeling** Imre Felde, Amir Mosavi, Zoltán Biczo, Shi Wei Obuda University, Hungary
2	08:50-09:10	★ **Duplex Oxide/Nitride Coatings on Biodegradable ZE5X Magnesium Alloy via ALD and Magnetron Sputtering for Orthopedic Applications** Lin Hsin-Chih, Cheng Chao-Chun National Taiwan University
3	09:10-09:25	**Experimental Investigation and Numerical Simulation of Internal Stress Evolutions In Aluminum Alloy Rings During Ageing Processes** Wang Pengyu, Shi Wei, Imre Felde Tsinghua University
4	09:25-09:40	**A Method for Translating Microstructures from Optical Microscopy to SEM like Images in GCr15 Steel** Sun Yixiao, Ju Dongying, Li Xusheng, Wang Jiangang, Liu Chao University of Science and Technology Liaoning
5	09:40-09:55	**Physics-Informed Robust Bayesian Optimization for Vacuum Carburizing Process Design** Yang Guoxi, Zhang Yujun, Xu Weihui，Tian Ruqiang, Li Xusheng, Sun Yixiao, Ju Dongying University of Science and Technology Liaoning
6	09:55-10:10	**A Combined Machine Learning and Residual-Correction Approach for Predicting Steel Material Parameters** Zheng Xianhao, Deng Xiaohu, Zhang Yuhui, Huang Yunjiang Tianjin University of Technology and Education
7	10:10-10:25	**Simulation Study on Integrated Hot Forming and Quenching Heat Treatment Process of TC4 Titanium Alloy Door Panel** Yang Siyuan, Li Xianjun, Zhang Wenliang, Wang Decheng, Wang Kaize, Zhang Fangming, Luo Ping China Academy of Machinery Beijing Research Institute of Mechanical & Electrical Technology Co., Ltd.

No.	Time	Title, Author(s), Affiliation(s)
8	10:25-10:40	**Numerical Simulation Design and Optimization of Induction Hardening for High-Speed Railway Axles** Peng Xu, Gao Jiewei, Zhang Hansong, Han Jing Southwest Jiaotong University
9	10:40-10:55	**Multiphase Thermal–Fluid–Solid Simulation of Quenching Uniformity for Stacked 18Cr2Ni4WA Internal Gears** Liu Qi, Deng Xiaohu, Li Xusheng, Yuan Yuedong, Du Zunzhong, Yang Xiaojun, Ju Dongying Tianjin University of Technology and Education
10	11:05-11:20	**Preparation and Properties of a Novel Compact Micro-Arc Oxidation (MAO) Coating on AZ91D Mg-Alloy** Niu Zitong, Lan XinYu, Ning Yiran, Ding Xiaxia, Zhang Chunyan, Zhou Peng, Zhang Xiaochen Heilongjiang Institute of Technology
11	11:20-11:35	**Microstructure Evolution and Properties Enhancement of HVOF-sprayed Inconel 718 Coatings during Direct Single Aging at 700 °C** Yang Shuhan, He Dingyong, Ma Lixia Beijing University of Technology
12:00-13:30		Buffet, 3rd Floor, Longemont Western Restaurant & Royfont Western Restaurant 自助餐，龙之梦 3 层西餐厅 & 瑞峰 3 层西餐厅
12	13:30-13:50	**★ Corrosion and Mechanical Properties of Ti-6Al-4V Alloy Using B+(B-Al) Surface Modification** Duan Yonghua Kunming University of Science and Technology
13	13:50-14:10	**★ Interface Sealing and Anti-SCC Mechanisms of Zinc Phosphate Epoxy/MAO Gradient Composite Coatings on Wrought AZ80 Magnesium Alloy** Xue Yu' na, Gong Qiao, Zhang Jie, Shen Yi, Zhang Zhenhui, Liu Jialei Xi' an Petroleum University
14	14:10-14:25	**Fe Ion Implantation Regulates the Degradation Behavior of Biomedical Zinc** Jiang Xueqi, Dong Qiangsheng, Tian Junqi, Wang Cheng, Bai Jing Nanjing Institute of Technology
15	14:25-14:40	**Construction of Micro-Nano Composite Coatings on Ti-5Cu Alloy for Enhanced Antibacterial and Corrosion Resistance** Chen Ruilin, Zhao Tianyi, Zhao Weixian, Wei Zihao, Zhou Huimin Harbin Engineering University

Thermal Spray and Cold Spray Technology & High-Temperature Thermal Protection Coatings

East, 2nd Floor, Conference Center（会议中心二层，虹口厅）
Chairs: Prof. Ouyang Jiahu, Harbin Institute of Technology
Prof. Zhang Xiaodong, Harbin Institute of Technology

No.	Time	Title, Author(s), Affiliation(s)
1	08:30-08:50	★ **A 30-Year Review and Future Outlook of Nanoscale Thermal Spraying** Wang You, Professor, Harbin Institute of Technology
2	08:50-09:10	★ **Advanced functional coatings for high-temperature applications** Guo Hongbo, Professor, Beihang University
3	09:10-09:30	★ **Research and Application of Special Lubricating Materials for Aerospace Environments** Ju Pengfei, Professor，Shanghai Aerospace Equipments Manufacturer Co., Ltd.
4	09:30-09:50	**Study on the High-Speed Liquid Droplet Erosion Resistance of Multi-Component Metal Nitride Coatings for Steam Turbine Blades** Gong Xiufang, Professor, Dongfang Turbine Co., Ltd.
5	09:50-10:05	**Cold spraying technology for core-shell structured WC-Ni/Al composite coating** Gong Chunzhi, Professor, Harbin Institute of Technology
10:05-10:20		Coffee Break
6	10:20-10:40	★ **Key Technologies of StrainTolerant Thermal Barrier Coatings for Turbine Blades** Wang Jinyang, Professor, Liaoning Materials Laboratory
7	10:40-11:00	★ **Thermal Protection Coatings and Their Service Behavior in Aerospace Equipments** Yang Li, Professor, Xidian University
8	11:00-11:20	★ **High-Performance Nanostructured Thermal Spraying Ceramic Coatings and Their Application in Thermal Protection Equipment** Zhang Xiaodong, Professor，Harbin Institute of Technology
9	11:20-11:35	**Investigation of High-Temperature Performance of Multi-Component Rare Earth Oxide-Doped YSZ Ultra-High Temperature TBCs for Heavy-Duty Gas Turbines** Wang Wei, Associate Professor, Dongfang Turbine Co., Ltd.

No.	Time	Title, Author(s), Affiliation(s)
10	11:35-11:50	**Characterization of New High-temperature Resistant HfSiO4 Bonding Coat** Wu Zhen, Associate Professor, Institute of Metal Research, Chinese Academy of Sciences
11	11:50-12:05	**Study on the High-Temperature Protective Performance and Engineering Applicability of CoAl, AlSi and CoAlY Coatings on the Surface of K452 Nickel-Based Superalloy** Zhang Lingyu, Yu Haojun, Wu Qiang, Fan Hailiang Shenyang Metalco Aviation Technology Ltd.
12:00-13:30		Buffet , 3rd Floor, Longemont Western Restaurant & Royfont Western Restaurant 自助餐，龙之梦 3 层西餐厅 & 瑞峰 3 层西餐厅

Thermal Spray and Cold Spray Technology & High-Temperature Thermal Protection Coatings

East, 2nd Floor, Conference Center（会议中心二层，虹口厅）
Chairs: Prof. Li Chengming, University of Science and Technology Beijing
Prof. Xia Yuan, Institute of Mechanics, Chinese Academy of Sciences
Prof. Wang Liang, Shanghai institute of ceramics, Chinese Academy of Sciences

No.	Time	Title, Author(s), Affiliation(s)
13	13:30-13:50	★ Laser-Wire Additive Manufacturing Technology Zhan Xiaohong, Professor, Taiyuan University of Technology
14	13:50-14:10	★ **Sea Service Adaptable Thermal Barrier Coatings for Aero Engines** Zhang Xiaofeng, Professor, Institute of New Materials, Guangdong Academy of Sciences
15	14:10-14:30	★ **Study on High-reflectivity Material** Gao Lihong, Professor, Beijing Institute of Technology
16	14:30-14:45	**Microstructural Features and High Temperature Performances of Nitrided 60NiTi Alloy** Tang Lei, Yang Huan, Wang Yunfei, Yi Xiaoyang Yantai University
17	14:45-15:00	**High-Temperature Corrosion Behavior of Multi-Component Rare-Earth Silicate Environmental Barrier Coatings** Zhong Xin, Associate Professor, Shanghai institute of ceramics, Chinese Academy of Sciences
15:00-15:20		Coffee Break

No.	Time	Title, Author(s), Affiliation(s)
18	15:20-15:40	★ **Multi-component Design and Fabrication Technology of UHTC Coatings for Extreme Environments** Niu Yaran, Professor, Shanghai institute of ceramics, Chinese Academy of Sciences

Thermal Spray and Cold Spray Technology & High-Temperature Thermal Protection Coatings

West III, 2nd Floor, Conference Center（会议中心二层，徐汇厅）
Chairs: Prof. Zhang Xiaodong, Harbin Institute of Technology
Prof. Wang Liang, Shanghai institute of ceramics, Chinese Academy of Sciences

No.	Time	Title, Author(s), Affiliation(s)
1	08:30-08:50	★ **Design of Macroscale Solid Superlubricity Towards Engineering** Ji Li, Professor, Lanzhou Institute of Chemical Physics, Chinese Academy of Sciences
2	08:50-09:10	★ **Preparation and Anti-Reflective Modification of WC-10Co4Cr Wear-Resistant Coatings** Xu Baosheng, Professor, Beijing Institute of Technology
3	09:10-09:30	★ Wang Yongxin, Professor, Ningbo Institute of Materials Technology and Engineering, Chinese Academy of Sciences
4	09:30-09:45	**Exploration of Rare-Earth Hexaaluminate-Based TEBCs with High Infrared Emissivity** Chen Wenbo Wuhan University of Technology
5	09:45-10:00	**Thermal Shielding Ceramic Coating Materials with Ultralow NIR Transmittance** Wang Shuqi, Associate Professor, Harbin Institute of Technology
10:00-10:20		Coffee Break
6	10:20-10:40	★ Luo Xiaotao, Professor, Xi' an Jiaotong University
7	10:40-11:00	★ **Preparation of Cold Sprayed Al AlN Composite Coatings and Investigation on Their Wear and Corrosion Properties** Zhou Hongxia, Professor, Qinghai University
8	11:00-11:20	★ **Research Progress on Interfacial Regulation and Performance Optimization of Cold-Sprayed Titanium Matrix Coatings** Lu Xin, Professor, University of Science and Technology Beijing
9	11:20-11:35	**Wear-Corrosion Behavior and Synergistic Mechanism of HVAF-Sprayed Cermet Coatings** Dong Haofan, PhD candidate, Harbin Institute of Technology

No.	Time	Title, Author(s), Affiliation(s)
10	11:35-11:50	**Preparation and Characterization of Nanostructured Environmental Barrier Coating** Sun Chuhao, PhD candidate, Harbin Institute of Technology
11	11:50-12:05	**Preliminary Exploration of the Regulation of High-Temperature Service Performance of Materials by Heat-Treatment-Induced Phase Transformations** Sun Kang, Master Candidate, Harbin Institute of Technology
12:00-13:30		Boxed Lunch

Thermal Spray and Cold Spray Technology & High-Temperature Thermal Protection Coatings

West III, 2nd Floor, Conference Center（会议中心二层，徐汇厅）
Chairs: Prof. Zhang Xiaodong, Harbin Institute of Technology
Prof. Wang Liang, Shanghai institute of ceramics, Chinese Academy of Sciences

No.	Time	Title, Author(s), Affiliation(s)
13	13:30-13:50	**★ Structural Evolutions and Failure Mechanisms of APS Tantalate High-Entropy Ceramics Coatings Response to Thermal Cycle up to 1500 ºC** Chen Lin, Professor, Kunming University of Science and Technology
14	13:50-14:10	**★ Data-driven Design and Fabrication of High-entropy Thermal Barrier Coatings** Zhou Xin, Professor, Yantai University
15	14:10-14:30	**★ Construction of Intelligent Agent for Thermal Protective Coatings of Aero Engine and Gas Turbine Turbine Blades** Wang Liang, Professor, Shanghai institute of ceramics, Chinese Academy of Sciences
16	14:30-14:45	**Oxidation-Assisted Self-Healing Strategies for YSZ-Based Thermal Barrier Coatings** Zhao Tingting, Master Candidate, Harbin Institute of Technology
17	14:45-15:00	**Effect of Nano-CeO_2 Doping on the Microstructure and Properties of WC-10Co-4Cr Coatings** Ge Yunyang, PhD Candidate, Harbin Institute of Technology
18	15:00-15:20	Coffee Break
19	15:20-15:35	**Treelike PS-PVD Coatings via Vapor Transport and Deposition** Liu Meijun, Associate Professor, Xi' an Jiaotong University

No.	Time	Title, Author(s), Affiliation(s)
20	15:35-15:50	**Preparation and Phase Transformation of Nano-SiC-Modified YSZ Composite Feedstock for Thermal Spraying** Han Xu, PhD candidate, Harbin Institute of Technology
21	15:50-16:05	**New Environmental/Thermal Barrier Coatings Suitable for Hydrogen Gas Turbines** Hao Pei, PhD Candidate, Harbin Institute of Technology
22	16:05-16:20	**Numerical Simulation of Uniformity and Particle Contamination of PECVD for Semiconductor Deposition Process** Xu Jingxiao, PhD Candidate, Harbin Institute of Technology
23	16:20-16:35	**Research Progress and Prospect of Abradable Seal Coatings for High-temperature Working Conditions** Zheng Zishuo, PhD candidate, Harbin Institute of Technology