

第 12 届国际电化学阻抗谱会议圆满闭幕

2023 年 7 月 7 日下午，第 12 届国际电化学阻抗谱会议在北京圆满闭幕。此次会议历时 5 天，于 2023 年 7 月 2 日至 7 日在北京延庆举行。这是这一系列会议第一次在中国举办。此次国际会议由教育部批准，由北京化工大学和清华大学共同承办。大会主席由北京化工大学雍兴跃研究员和清华大学张剑波教授共同担任。



大会代表合影留念

北京化工大学校长、中国工程院院士谭天伟教授线上出席 7 月 3 日的开幕式，并代表大会承办单位致辞。厦门大学孙世刚院士出席开幕式，并代表大会顾问委员会和技术委员会致辞。北京化工大学化学工程学院原党委书记陈晓春教授、主管科研的副院长程道建教授参加欢迎晚宴。程道建教授在欢迎晚宴上致辞。



大会开幕式



北京化工大学谭天伟校长在开幕式上线上致欢迎词



孙世刚院士在开幕式上致辞

在大会开幕式上,国际电化学阻抗谱技术委员会授予了浙江大学张鉴清教授、比利时布鲁塞尔自由大学 (VRIJE Universiteit Brussel) Annick Hubin 教授 Claude 奖,以表彰两位教授在电化学阻抗谱技术研究与应用方面做出的贡献,这是 Claude 奖第一次授予中国的腐蚀电化学学者。



法国索邦大学 Bernard Tribollet 和 Vincent Vivier 教授为浙江大学张鉴清和比利时 Annick Hubin 教授颁发 Claude 奖

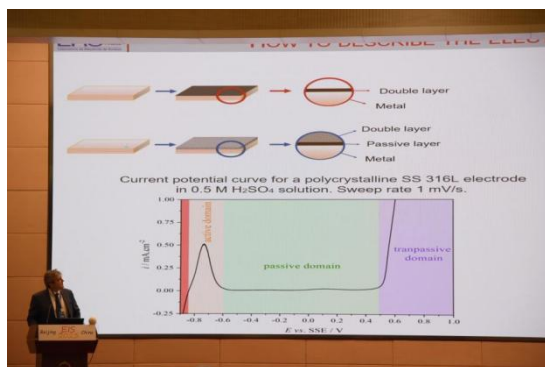
此次大会有来自法国、德国、比利时、巴西、日本、韩国、塞尔维亚、斯洛文尼亚等 12 个国家的 210 余位专家学者参加。会议主要围绕电化学阻抗谱新理论、技术与仪器，腐蚀电化学及其应用，电化学能量储存与转换及应用，电化学催化合成、分析与传感器等 4 个领域，分纪念曹楚南院士、电化学测试技术与传感器、金属腐蚀、磨损腐蚀、涂层&转化膜、缓蚀剂、能源电池和电催化 8 个专题进行了交流。期间，还举办了电化学仪器技术展示，开设了“电化学阻抗谱课程”短训班、组织了研究生 3 分钟论文讲解（3MT 比赛）等学术活动。



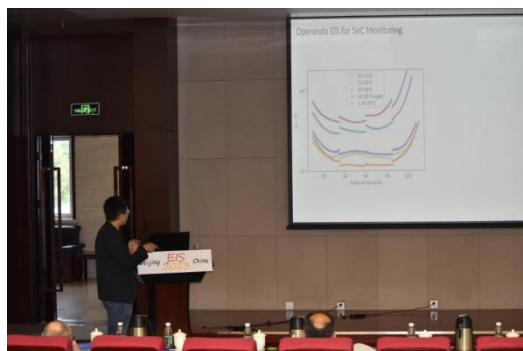


国内外代表在开幕式上欢聚一堂

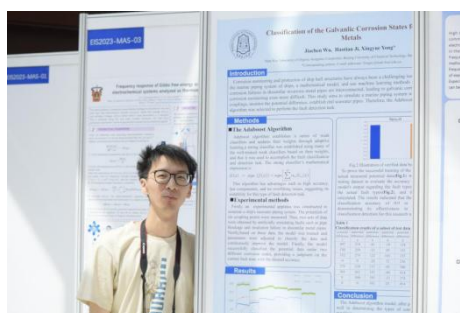
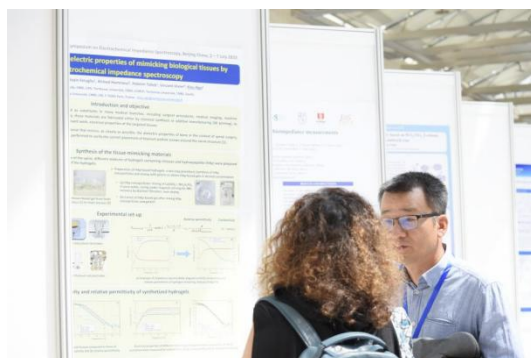
此次会议受到了王宽诚教育基金会的资助，并得到国际电化学协会（ISE），中国腐蚀与防护学会腐蚀电化学及测试方法专业委员会，有机无机复合材料国家重点实验室，汽车安全与节能国家重点实验室，材料腐蚀与防护四川省重点实验室，中国化工信息中心有限公司和中国化学会电化学专业委员会等单位的协办与支持。《Electrochimica Acta》《电化学》《Biosensor》《中国腐蚀与防护学报》等国内外期刊将为大会报告出版专刊。



大会报告场景



分会场报告



墙报展示

此次会议共安排大会报告 15 场，口头报告 100 场，墙报 51 篇，62 人参加了电化学阻抗谱技术培训，10 人参加了 3 分钟论文讲解（3MT 比赛）和 14 家电化学仪器技术厂家参加了展示。会议期间，由国内外知名教授、学者组成的专家组评选了曹楚南奖 3 名，优秀报告奖 10 名，3MT 奖 6 名，优秀墙报奖 10 名，获奖名单详见附件。



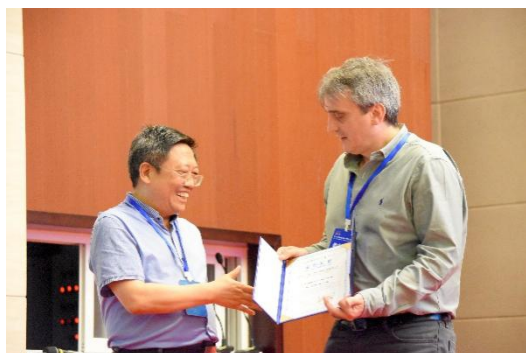
3MT 演讲比赛及现场评审环节



参展企业介绍产品

在闭幕式上，为获奖者进行了颁奖仪式。在此，对获奖者表示祝贺。同时，衷心感谢来自国内外的所有会议代表对本次大会的大力支持。由 Vincent Vivier 教授对国际电化学阻抗谱会议历程进行了回顾，并宣布第 13 届国际电化学阻抗谱会议将于 2026 年 11 月在巴西举行。





颁奖仪式



Vincent Vivier 教授回顾会议历程

附件：获奖名单

List of Chunan Cao Awards

No.	Authors	Topic
1	Li Liu	Study of corrosion of high-strength steel in 3.5% NaCl solution under hydrostatic pressure using electrochemical impedance spectroscopy
2	Yuming Tang	Study on the rapid detection method for coating performance based on phase angles with three methods of correlation analysis
3	Zehua Dong	Electrochemical Impedance sensor for early failure monitoring of coatings in offshore wind power station

List of Best Presentation Awards

No.	Session	Authors	Topic
1	Inhibitors	Baoming Fan	Benzothiazole derivatives-based supramolecular assemblies as efficient corrosion inhibitors for copper in artificial seawater: Formation, interfacial release and protective mechanisms
2	Metallic Corrosion	Yaojun Hou	The effect of Cl ⁻ and applied potential for corrosion resistance on CrMnFeCoNi high entropy alloys by electrochemical measurements in sulfuric acid
3		Reynier Revilla	EIS comparative study and critical EEC analysis of the native oxide layer of additively manufactured and wrought 316L stainless steel
4		Haotian Ji	Study on the metal/salt hydrate interfaces under solid-liquid transitions of phase change material based on EIS and EN methods
5	Measurements & analysis and	Benny Wouters	Investigating the diffusion of water and ions in organic coatings using coupled ORP-EIS and in situ ATR-FTIR in Kretschmann geometry
6	Sensors	Noël Halleman	Operando EIS and its application to Li-ion batteries
7	Coatings & films	Guoqing Wang	An EIS study of corrosion resistance and antibacterial activities of a new composite coating on AZ91 magnesium alloy surface
8	Batteries	Chong Yan	Determining the fast-charging boundary and achieving lithium plating early warning with EIS for safe lithium-ion batteries
9	Electro-catalysis	Yiming Zhang	Analysis of Proton Transport in Electrospun Catalyst Layer
10	Tribo-corrosion	Xiankang Zhong	The research progress on adsorption-desorption of corrosion inhibitor under the pipe flow condition

List of Best Poster Awards

No.	Authors	Topic
1	Sara Genoveva Hernán EIS 2023 Beijing China 中国 北京	Frequency response of Gibbs free energy and enthalpy changes of electrochemical systems analyzed as thermometric transfer functions
2	Yanming Xia	Effect of Cu ²⁺ and Hg ²⁺ on the corrosion behavior and mechanism of Al-2 %Zn coatings in 3.5 % NaCl solution
3	Shixiong Wu	Application of electrical impedance spectroscopy in cathodic protection studies
4	Zhihong Liu	Research on the Correlation between ICG and Tensile Properties of Alloy 625
5	Denghui Xia	Electrochemical characteristics of the additive manufacturing AlSi10Mg alloy in a 3.5 wt.% NaCl solution
6	Xiaomei Dong	Features of electrochemical impedance spectroscopy during the failure of conductive coatings
7	Lili Xie	Global and local electrochemical behaviors of the in-situ conversion coating of Mg alloy based on EIS and SVET
8	Benny Wouters	Development of an Odd Random Phase Electrochemical Impedance Spectroscopy Sensor for Battery Management Systems
9	Pingan Li	Analysis of degradation mechanism in unitized regenerative fuel cell based on the EIS method
10	Goldberk Katirci	EIS Investigation of Vitzrocell C and D Size Li/SOCl ₂ and Li/SOCl ₂ /SO ₂ Cl ₂ Mixture Batteries

List of 3MT Awards

No.	Authors	Grade	Topic
1	Ruqing Fang	1st prize	A Theoretical Study of the Mechanical Effect on Impedance Response of Lithium Ion Batteries: from Single Particle to Porous Electrode
2	Yuanyuan Ji	2nd prize	Effect of substrate orientations on the electrochemical and localized corrosion behavior of a quad-layer Al alloy composite
3	Yiming Zhang	2nd prize	Residual PAA makes the proton transport path in Electrospun CL more tortuous
4	Haotian Ji	3rd prize	Fractals — The beauty from nature geometry, the answer to local corrosion
5	Yanhui Sun	3rd prize	Pioneering Performances of RuIr Nanoalloys towards Efficient Acidic Water Splitting
6	Zhangmin Zhang	3rd prize	Highly Stable Chloride Sensor in Reinforced Concrete