

# ICOBTE & ICHMET 2025

Catalyzing Change for Sustainability and ESG:  
Bridging Academia and Industry

22<sup>nd</sup> - 26<sup>th</sup> September 2025  
BEXCO, Busan, Korea



# ICOBTE & ICHMET 2025 CONFERENCE

<b>Event</b>	ICOBTE & ICHMET 2025 Conference
<b>Theme</b>	Catalyzing Change for Sustainability and ESG: Bridging Academia and Industry
<b>Date</b>	September 22 <sup>nd</sup> - September 26 <sup>th</sup> , 2025
<b>Country</b>	Korea
<b>Venue</b>	BEXCO, Busan
<b>Organizer</b>	International Society of Trace Element Biogeochemistry (ISTEB)
<b>Co-organizers</b>	- International ESG Association (IESGA) - Korea University ESG Research Institute - Korea Biochar Research Center

This is the joint conference of the 17th International Conference of Biogeochemistry of Trace Elements (ICOBTE) and the 22nd International Conference of Heavy Metals (ICHMET). The two societies have merged and formed the new International Society of Trace Elements in the Environment (ISTEE).



## IMPORTANT DATES

21 <sup>st</sup> March 2025	31 <sup>st</sup> March 2025	31 <sup>st</sup> March 2025
Early Bird Registration Deadline	Regular Registration Deadline	Abstract Submission Deadline

## CHAIRS OF THE CONFERENCE



**Prof. Yong Sik Ok**  
 - Korea University HCR Professor  
 - President, International Society of Trace Element Biogeochemistry (ISTEB)  
 - President, International ESG Association (IESGA)



**Prof. Jörg Rinklebe**  
 - University of Wuppertal, Germany  
 - Former President, International Society of Trace Element Biogeochemistry (ISTEB)



**Prof. Filip Tack**  
 - Ghent University, Belgium  
 - Former President, International Conference on Heavy Metals (ICHMET)

## PLENARY SPEAKERS



**Prof. Jim Ippolito**  
 The Ohio State University, Unites States



**Prof. Yong-Guan Zhu**  
 Chinese Academy of Science, China



**Prof. Jon Blundy**  
 University of Oxford, United Kingdom



**Prof. Longbin Huang**  
 University of Queensland, Australia



**Prof. Daniel C. W. Tsang**  
 The Hong Kong University of Science and Technology Hong Kong, China



**Prof. Scott Fendorf**  
 Stanford University, Unites States



**Prof. Wonyong Choi**  
 Korea Institute of Energy Technology, Korea



**Prof. Scott Chang**  
 University of Alberta, Canada



**Prof. Xinde Cao**  
 Shanghai Jiao Tong University, China

## REGULAR SESSIONS

- Human Health and Trace Elements
- Food and Trace Elements
- Water and Trace Elements
- Plants and Trace Elements
- Other Topics related to Trace Elements
- Analytical and Experimental Methods
- Organisms and Trace Elements
- Soils / Sediments and Trace Elements
- Microorganisms and Trace Elements
- Trace Elements and Sustainability

## SPECIAL SYMPOSIUM SESSIONS

	Symposium Title	Chair	Co-Chairs
1	Agricultural Amendments: Implications for Sustainable Management and Environmental Quality	<b>Scott Chang</b> (University of Alberta, Canada)	<b>Jianming Xu</b> (Zhejiang University, China) <b>Nanthi Bolan</b> (University of Western Australia, Australia)
2	Balancing Trace Elements in the Environmental-Food Chain Continuum	<b>Filip Tack</b> (Ghent University, Belgium)	<b>Erik Smolders</b> (Katholieke Universiteit Leuven, Belgium) <b>Fang-Jie Zhao</b> (Nanjing Agricultural University, China) <b>Gijs Du Laing</b> (Ghent University, Belgium)
3	Mineral Weathering and Metal(loid) Biogeochemistry: from Agricultural Land to Mining Pollution Management	<b>Binoy Sarkar</b> (University of South Australia, Australia) <b>Longbin Huang</b> (University of Queensland, Australia)	<b>Narottam Saha</b> (The University of Queensland, Australia) <b>Fang You</b> (The University of Queensland, Australia) <b>Zhang Lin</b> (Central South University, China)
4	Integrating Clean Energy and Waste Valorization: Pathways to Recover Critical Minerals and Metals for Sustainable Development	<b>Daniel Alessi</b> (The University of Texas at Austin, United States)	<b>Janice P. L. Kenney</b> (Laurentian University, Canada)
5	Trace Elements in Anaerobic Digestion	<b>Wei Qiao</b> (China Agricultural University, China)	<b>Lee Yu-young</b> (Tohoku University, Japan)
6	Functionalized Biochar for the Management of Heavy Metal Biogeochemistry	<b>Hailong Wang</b> (Foshan University, China)	<b>Jim Ippolito</b> (The Ohio State University, United States) <b>Jörg Rinklebe</b> (University of Wuppertal, Germany) <b>Xing Yang</b> (Hainan University, China)
7	Biochar from Biomass and Waste	<b>Yong Sik Ok</b> (Korea University, Korea)	<b>Sanjai Parikh</b> (University of California, Davis, United States) <b>Ondrej Masek</b> (University of Edinburgh, United Kingdom) <b>Chao He</b> (Tampere University, Finland) <b>Wang Chi-Hwa</b> (National University of Singapore, Singapore) <b>Hailong Wang</b> (Foshan University, China)
8	Pollution Control and Resource Utilization of Heavy Metals-Contaminated Biomass	<b>Shicheng Zhang</b> (Fudan University, China)	<b>Rongliang Qiu</b> (South China Agricultural University, China) <b>Bing Deng</b> (Tsinghua University, China)
9	Advances in Mercury Biogeochemistry and Trophic Transfer Research in Support of the Minamata Convention	<b>Michael S. Bank</b> (Institute of Marine Research, Norway)	<b>Xinbin Feng</b> (Chinese Academy of Sciences, China)
10	Mercury in the Environment	<b>Jörg Rinklebe</b> (University of Wuppertal, Germany)	<b>Xinbin Feng</b> (Chinese Academy of Sciences, China) <b>Jianxu Wang</b> (Chinese Academy of Sciences, China) <b>Michael S. Bank</b> (Institute of Marine Research, Norway) <b>Jerry Lin</b> (Lamar University, United States)
11	Human and Environmental Health Impacts of Heavy Metal Pollution	<b>Yong Sik Ok</b> (Korea University, Korea) <b>Janelle Thompson</b> (Nanyang Technological University, Singapore)	<b>Wang Xianfeng</b> (Nanyang Technological University, Singapore)
12	Biogeochemistry of Trace Elements in Wetlands	<b>Jörg Rinklebe</b> (University of Wuppertal, Germany) <b>Sabry M Shaheen</b> (Kafrelsheikh University, Egypt)	
13	Metal Stable Isotopes: New Insights into Ecosystems, Human Health, and Climate	<b>Zoyne Pedrero Zayas</b> (University of Pau, France)	<b>Yiou Zhu</b> (Institute of Marine Research, Norway) <b>Zhengcheng Song</b> (Nanjing University, China) <b>Sae Yun Kwon</b> (Postech University of Science and Technology, Korea)
14	Optimizing Critical Element Resources and Environmental Health: The Case of the Critical Elements Antimony, Gallium, Germanium, Indium, and Tellurium	<b>Montserrat Filella</b> (University of Geneva, Switzerland)	<b>Jose Luis Cortina</b> (Barcelona TECH UPC, Spain) <b>Ishai Dror</b> (Weizmann Institute of Science, Israel) <b>Teba Gil-Diaz</b> (Karlsruher Institut für Technologie, Germany) <b>Juraj Majzlan</b> (Friedrich-Schiller-Universität Jena, Germany) <b>Mengchan He</b> (Beijing Normal University, China) <b>Sarah Jane O. White</b> (U.S. Geological Survey, United States) <b>Susan C Wilson</b> (University of New England, Australia)
15	Novel Approaches for Improving Soil Health and Remediation	<b>Michael Komárek</b> (Czech University of Life Sciences, The Czech Republic)	<b>Juan Antrlo</b> (University of Santiago de Compostela, Spain) <b>Ivan Carabante</b> (Luleå University of Technology, Sweden) <b>Diego Baragaño</b> (Universidad de Cantabria, Spain)
16	Heavy Metal Pollution: Risk Assessment and Remediation	<b>Meththika Vithanage</b> (University of Sri Jayawardenepura, Sri Lanka)	<b>Xiaokai Zhang</b> (Jiangnan Univeristy, China) <b>Williamson Gustave</b> (University of the Bahamas, Bahamas) <b>Woo Hyoung Lee</b> (University of Central Florida Associate Professor, United States)
17	Phytoremediation of Trace Elements in Soils as a Sustainable Green Tool: Potential, Status, Problems, Solutions, and Prospects	<b>The late Irena Twardowska</b> (Polish Academy of Sciences, Poland)	<b>Shuhe Wei</b> (Chinese Academy of Sciences, China) <b>Huiping Dai</b> (Shaanxi University of Technology, China)
18	Successes and Failures in Trace/Heavy Metal Contaminated Land Reclamation	<b>Jim Ippolito</b> (The Ohio State University, United States)	<b>Nick Basta</b> (The Ohio State University, United States) <b>Ganga M. Hettiarachchi</b> (Kansas State University, United States)

## SPECIAL SYMPOSIUM SESSIONS

	Symposium Title	Chair	Co-Chairs
19	Impact of Climate Change on Metal Contamination and Remediation in Aquatic Environments	<b>Anna Sophia Knox</b> (Savannah River National Laboratory, United States)	<b>Filip M. G. Tack</b> (Ghent University, Belgium) <b>Agnieszka Baran</b> (University of Agriculture in Krakow, Poland)
20	Explore the Potential of Critical Elements in PFAS Remediation	<b>Zongsu Wei</b> (Aarhus University, Denmark)	<b>Hui Lin</b> (Dongguan University of Technology, China) <b>Jörg Rinklebe</b> (University of Wuppertal, Germany) <b>Jörg Feldmann</b> (University of Graz, Austria)
21	Micro(nano)plastics in the Environment	<b>Carol S.K. Lin</b> (City University of Hong Kong, China)	<b>SungYeon Hwang</b> (Kyung Hee University, Korea)
22	The 3rd International Forum on Plastic and Sustainability	<b>Yong Sik Ok</b> (Korea University, Korea) <b>Xiangzhou Yuan</b> (Southeast University, China)	<b>Michael Bank</b> (Institute of Marine Research, Norway) <b>Dan Tsang</b> (The Hong Kong University of Science and Technology, Hong Kong, China) <b>Patryk Oleszczuk</b> (Maria Curie-Skłodowska University, Poland) <b>Meththika Vithanage</b> (University of Sri Jayewardenepura, Sri Lanka) <b>SungYeon Hwang</b> (Kyung Hee University, Korea) <b>Baojun Yi</b> (Huazhong Agricultural University, China) <b>Xiaoguang Duan</b> (The University of Adelaide, Australia)
23	Advanced Nano- and Carbon-based Materials for Efficient Trace Metal Remediation in Environmental Systems (soil, waste and water)	<b>Patryk Oleszczuk</b> (Maria Curie-Skłodowska University, Poland)	
24	Environmental Effects of Trace Elements: Integrating In Silico, In Vitro, High-Throughput, and High-Content Approaches	<b>Claudia Cosio</b> (Université de Reims Champagne-Ardenne, France)	<b>Vera Slaveykova</b> (Université de Genève, Switzerland)
25	Advancing Towards a Sustainable Future: Principles and Technologies for Circular Economy and Real-World Applications	<b>Chungheon Shin</b> (Stanford University, United States)	<b>Amy Tan</b> (City University of Hong Kong, Hong Kong, China)
26	Innovative Approaches to Environmental Quality Monitoring and Management: Special Focus on SDGs and Priority Pollutants	<b>Xiangzhou Yuan</b> (Southeast University, China)	<b>Sabry M Shaheen</b> (Kafrelsheikh University, Egypt) <b>Xing Yang</b> (Hainan University, China) <b>Xiao Yang</b> (Institute of Geographic Sciences and Natural Resources Research CAS, China) <b>Shengsen Wang</b> (Yangzhou University, China)
27	Machine Learning Applications in Tackling Trace Elements Challenges	<b>Chongchong Qi</b> (Central South University, Changsha, China)	<b>Qiusong Chen</b> (Central South University, China) <b>Ping Zhang</b> (University of Macau, China) <b>Yan Shi</b> (Central South University, China)

## KEYNOTE SPEAKERS



**Prof. Michael Komárek**  
Czech University of Life Sciences,  
Republic of Czech



**Prof. Shicheng Zhang**  
Fudan University, China



**Prof. Yoo Ga-young**  
Kyunghee University, Korea



**Prof. Prof. Zongsu Wei**  
Aarhus University, Denmark



**Prof. Michel Mench**  
University of Bordeaux, France



**Prof. Xiao Yang**  
Chinese Academy of Sciences, Beijing,  
China



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Associate Professor, Unites States



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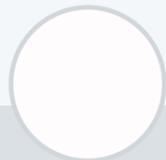
**Prof. Shuhe Wei**  
Chinese Academy of Sciences, China



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National Taiwan University, Taiwan



**Prof. Wei Qiao**  
Prof. China Agricultural University,  
China



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Institute of Civil Engineering and  
Building Technology, Korea



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Alberta, Canada  
Soil Fertility Management and  
Land Reclamation, Alberta, Canada  
Department of Soil Science,  
Ain Shams University, Cairo, Egypt



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Zhejiang University, China



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University of Peradeniya, Sri Lanka



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City University of Hong Kong, China

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Zhejiang University of Water  
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University of California-Davis, USA



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Zhejiang University, China

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CEBAS-CSIC in Murcia, Spain



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Zhejiang University, China



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University of Sri Jayewardenepura,  
Sri Lanka



Prof. **Kurt Konhauser**

University of Alberta, Canada



Prof. **Zeng-Yei HSEU**

National Taiwan University, Taiwan



Prof. **Ajit Sarmah**

University of Auckland, New Zealand



Prof. **Yaoyu Zhou**

Hunan Agricultural University, China



Prof. **Franz Jirsa**

University of Vienna, Austria



Prof. **Lin Zhang**

City University of Hong Kong, China



Prof. **Cheng-Di Dong**

National Kaohsiung University of  
Science and Technology, Taiwan



Prof. **Leilei Dai**

Southeast University, Nanjing, China

## SPECIAL SESSION CHAIRS

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Heavy Metal Pollution: Risk Assessment and Remediation



Prof. **Meththika Vithanage**  
University of Sri Jayewardenepura, Sri Lanka

---

Pollution Control and Resource Utilization of Heavy Metals-Contaminated Biomass



Prof. **Shicheng Zhang**  
Fudan University, China

---

Micro(nano)plastics in the environments



Prof. **Carol S.K. Lin**  
City University of Hong Kong, China

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Functionalized Biochar for the Management of Heavy Metal Biogeochemistry



Prof. **Hailong Wang**  
Foshan University, China

---

Machine Learning Applications in Tackling Trace Elements Challenges



Prof. **Chongchong Qi**  
Central South University, Changsha, China

---

Novel Approaches for Improving Soil Health and Remediation



Prof. **Michael Komárek**  
Czech University of Life Sciences, Republic of Czech

---

Balancing Trace Elements in the Environmental-Food Chain Continuum



Prof. **Filip Tack**  
Ghent University, Belgium

---

Trace Elements in Anaerobic Digestion



Prof. **Wei Qiao**  
China Agricultural University, China

---

Successes and Failures in Trace/Heavy Metal Contaminated Land Reclamation



Prof. **Jim Ippolito**  
The Ohio State University, Unites States

---

Integrating Clean Energy and Waste Valorization: Pathways to Recover Critical Minerals and Metals for Sustainable Development



Prof. **Daniel Alessi**  
University of Alberta, Canada

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## SPECIAL SESSION CHAIRS

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Advances in Mercury Biogeochemistry and Trophic Transfer Research in Support of the Minamata Convention



Prof. **Michael S. Bank**  
Institute of Marine Research, Norway

---

Impact of Climate Change on Metal Contamination and Remediation in Aquatic Environments



Prof. **Anna Sophia Knox**  
Savannah River National Laboratory, United States

---

Optimizing Critical Element Resources and Environmental Health: The Case of the Critical Elements Antimony, Gallium, Germanium, Indium, and Tellurium



Prof. **Montserrat Filella**  
University of Geneva, Switzerland

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Advancing Towards a Sustainable Future: Principles and Technologies for Circular Economy and Real-World Applications



Dr. **Chungheon Shin**  
Stanford University, United States

---

Environmental Effects of Trace Elements: Integrating In Silico, In Vitro, High-Throughput, and High-Content Approaches



Prof. **Claudia Cosio**  
University of Reims Champagne-Ardenne, France

---

Advanced Nano- and Carbon-based Materials for Efficient Trace Metal Remediation in Environmental Systems (soil, waste and water)



Prof. **Patryk Oleszczuk**  
Maria Curie-Skłodowska University, Poland

---

Agricultural Amendments: Implications for Sustainable Management and Environmental Quality



Prof. **Scott Chang**  
University of Alberta, Canada

---

Phytoremediation of Trace Elements in Soils as a Sustainable Green Tool: Potential, Status, Problems, Solutions and Prospects



The late Prof. **Irena Twardowska**  
Polish Academy of Sciences, Poland

---

Explore the potential of critical elements in PFAS remediation



Prof. **Zongsu Wei**  
Aarhus University, Denmark

---

Human and Environmental Health Impacts of Heavy Metal Pollution



Prof. **Janelle Thompson**  
Nanyang Technological University, Singapore

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## SPECIAL SESSION CHAIRS

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Mineral Weathering and Metal(loid) Biogeochemistry: from Agricultural Land to Mining Pollution Management



Prof. **Longbin Huang**

The University of Queensland, Australia

---

Mineral Weathering and Metal(loid) Biogeochemistry: from Agricultural Land to Mining Pollution Management



Dr. **Binoy Sarkar**

University of South Australia, Australia

---

• Mercury in the Environment  
• Biogeochemistry of Trace Elements in Wetlands



Prof. **Jörg Rinklebe**

University of Wuppertal, Germany

---

• Innovative Approaches to Environmental Quality Monitoring and Management, with Special Focus on SDGs and Priority Pollutants  
• The 3rd International Forum on Plastic and Sustainability



Prof. **Xiangzhou Yuan**

Southeast University, China

---

Metal Stable Isotopes: New Insights into Ecosystems, Human Health, and Climate



Prof. **Zoyne Pedrero Zayas**

University of Pau, France

---

Biogeochemistry of Trace Elements in the wetlands



Prof. **Sabry M. Shaheen**

Kafrelsheikh University, Egypt / Wuppertal University, Germany

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• Biochar from Biomass and Waste  
• The 3rd International Forum on Plastic and Sustainability  
• Human and Environmental Health Impacts of Heavy Metal Pollution



Prof. **Yong Sik Ok**

Korea University, Korea

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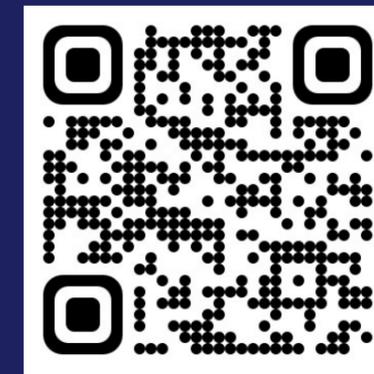
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Exhibition Booth Website Offer	TBD				
Contest Registration Ticket (Unit: number of tickets)	10	7	5	3	2



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