

# 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

[ichmet2025.org](http://ichmet2025.org)



## | 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>	South 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).



International  
**ESG**  
Association



**ESG** 연구원  
ESG Research Institute

## | Important dates

<b>15<sup>th</sup> September 2024</b>	<b>15<sup>th</sup> September 2024</b>	<b>31<sup>st</sup> January 2025</b>	<b>15<sup>th</sup> February 2025</b>
Early Bird Registration	Abstract Submission	Registration Deadline	Abstract Submission Deadline



## | Chair of the Conference



Prof.  
Yong Sik Ok



Prof.  
Jörg Rinklebe



Prof.  
Filip Tack

## | Plenary Speakers



Prof.  
Jim Ippolito



Prof.  
Yong-Guan Zhu



Prof.  
Jon Blundy



Prof.  
Longbin Huang



Prof.  
Daniel C. W. Tsang



Prof.  
Scott Fendorf



Prof.  
Wonyong Choi

## | Regular Session

- 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 Session

Theme	Symposium Title	Chair
Trace Elements and Human Health	Pollution Control and Resource Utilization of Heavy Metals-Contaminated Biomass	Shicheng Zhang
	Human and Environmental Health Impacts of Heavy Metal Pollution	Janelle Thompson
	Micro(nano)plastics in the Environments	Carol S.K. Lin
Trace Elements and Soil Management	Novel Approaches for Improving Soil Health and Remediation	Michael Komárek
	Heavy Metal Pollution: Risk Assessment and Remediation	Meththika Vithanage
	Mercury in the Environment	Jörg Rinklebe
	Agricultural Amendments: Implications for Sustainable Management and Environmental Quality	Scott Chang
	Trace Elements in Anaerobic Digestion	Wei Qiao
	Functionalized Biochar for the Management of Heavy Metal Biogeochemistry Balancing Trace Elements in the Environmental-Food Chain Continuum	Filip Tack
	Phytoremediation of Trace Elements in Soils as a Sustainable Green Tool: Potential, Status, Problems, Solutions and Prospects	Irena Twardowska
Biochar, Heavy Metals and Trace Elements	Functionalized Biochar for the Management of Heavy Metal Biogeochemistry	Hailong Wang
	Biochar from Biomass and Waste	Yong Sik Ok
	Advances in Mercury Biogeochemistry and Trophic Transfer Research in Support of the Minamata Convention	Michael S. Bank
	Successes and Failures in Trace/Heavy Metal Contaminated Land Reclamation	Jim Ippolito
Energy and Minerals	Integrating Clean Energy and Waste Valorization: Pathways to Recover Critical Minerals and Metals for Sustainable Development	Daniel Alessi
	Mineral Weathering and Metal(loid) Biogeochemistry: from Agricultural Land to Mining Pollution Management	Binoy Sarkar, Longbin Huang
Machine Learning in Trace Elements	Machine Learning Applications in Tackling Trace Elements Challenges	Chongchong Qi
Environmental Chemistry and Trace Elements	Innovative approaches to environmental quality monitoring and management, with special focus on SDGs and priority pollutants	Xiangzhou Yuan
	Impact of Climate Change on Metal Contamination and Remediation in Aquatic Environments	Anna Sophia Knox
	Optimizing Critical Element Resources and Environmental Health: The Case of the Critical Elements Antimony, Gallium, Germanium, Indium, and Tellurium	Montserrat Filella
	Explore the potential of critical elements in PFAS remediation	Zongsu Wei, Aarhus University
	Advanced Nano- and Carbon-based Materials for Efficient Trace Metal Remediation in Environmental Systems (soil, waste and water)	Patryk Oleszczuk
New Technologies and Future Advances in Toxic Elements	Environmental Effects of Trace Elements: Integrating in Silico, in Vitro, High-Throughput, and High-Content Approaches	Claudia Cosio
	Advancing Towards a Sustainable Future: Principles and Technologies for Circular Economy and Real-World Applications	Chunghoon Shin



## | Special Session Chairs



Heavy Metal Pollution:  
Risk Assessment and Remediation

Prof. **Meththika Vithanage**



Balancing Trace Elements in  
the Environmental-Food Chain  
Continuum

Prof. **Filip Tack**



Novel Approaches for Improving  
Soil Health and Remediation

Prof. **Michael Komárek**



Functionalized Biochar for the  
Management of  
Heavy Metal Biogeochemistry

Prof. **Hailong Wang**



Pollution Control and Resource  
Utilization of  
Heavy Metals-Contaminated Biomass

Prof. **Shicheng Zhang**



Biochar from Biomass and Waste

Prof. **Yong Sik Ok**



Mercury in the Environment

Prof. **Jörg Rinklebe**



Successes and Failures in Trace/  
Heavy Metal Contaminated Land  
Reclamation

Prof. **Jim Ippolito**



Micro(nano)plastics in the environments

Prof. **Carol S.K. Lin**



Machine Learning Applications in  
Tackling Trace Elements Challenges

Prof. **Chongchong Qi**



Trace Elements in Anaerobic Digestion

Prof. **Wei Qiao**



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

Prof. **Daniel Alessi**

## | Special Session Chairs



Innovative approaches to environmental quality monitoring and management, with special focus on SDGs and priority pollutants

**Prof. Xiangzhou Yuan**



Human and Environmental Health Impacts of Heavy Metal Pollution

**Prof. Janelle Thompson**



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

**Prof. Michael S. Bank**



Agricultural Amendments: Implications for Sustainable Management and Environmental Quality

**Prof. Scott Chang**



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

**Prof. Anna Sophia Knox**



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

**Prof. Irena Twardowska**



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

**Prof. Montserrat Filella**



Explore the potential of critical elements in PFAS remediation

**Prof. Zongsu Wei**



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

**Dr. Chungheon Shin**



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

**Prof. Patryk Oleszczuk**



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

**Prof. Claudia Cosio**



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

**Prof. Longbin Huang**



**Prof. Binoy Sarkar**



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Contest Registration Ticket (Unit: number of tickets)	10	7	5	3	2





## **ICOBTE & ICHMET 2025 Secretariat**

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