

## Scientific Program

**Tuesday, October 24, 2017**

18:00-20:00	Welcome Party at Banquet Hall, Building #4		
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**Wednesday, October 25, 2017**

Keynote speech 1		Oral Session Room (Buzz Hall)	
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9:00-9:30	Material Flows, Stocks and Clean Cycles	Shin-ichi Sakai	Japan
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Keynote speech 2		Oral Session Room (Buzz Hall)	
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9:30-10:00	Final Sink and Clean Cycle	Hwong-Wen Ma	Taiwan
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Keynote speech 3		Oral Session Room (Buzz Hall)	
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10:00-10:30	Waste prevention and re-use: experiences, environmental assessment and challenges	Mario Grosso	Italy
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Keynote speech 4		Oral Session Room (Buzz Hall)	
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10:30-11:00	Toyota Environmental Challenge 2050 ~ Challenge for Resource Recycling Management ~	Takashi Shimamura	Japan
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11:00-11:15	Exhibition / Poster Display / Coffee Break		
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Session A: Material flow analysis and life cycle assessment			
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11:15-12:30	Oral Session Room (Buzz Hall)		
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<b>Chair</b>	Jinhui Li, China; Julian Cleary, Canada		
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A-1 11:15-11:30	Global resource flows in trade by future socio-economic scenarios	Ryoko Morioka	Japan
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A-2 11:30-11:45	Material Flow Analysis of Concrete and Concrete Waste in Australia	Soo Huey Teh	Australia
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<b>A-3</b> <b>11:45-12:00</b>	Diachronic Comparison of Material flow in Japan from Perspective of both Direct Material Input and Total Material Requirement	Eiji Yamasue	Japan
<b>A-4</b> <b>12:00-12:15</b>	Implementing LCA on Land Use in an Economic and Environmental Integrated Assessment Model for Deep Decarbonization	Li-Heng Chen	Taiwan
<b>A-5</b> <b>12:15-12:30</b>	The Effect of Water Scarcity on the Water Use in Life Cycle Impact Assessment in Taiwan	Lance HongWei Huang	Taiwan

<b>12:30-14:00</b>	<b>Lunch</b>		
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<b>Keynote speech 5</b>	<b>Oral Session Room (Buzz Hall)</b>		
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<b>14:45-15:15</b>	ProSUM – prospective material flow management in a circular economy	Vera Susanne Rotter	Germany
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<b>Session B: Indicators development for resource efficiency</b>			
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<b>15:15-16:30</b>	<b>Oral Session Room (Buzz Hall)</b>		
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<b>Chair</b>	Vera Susanne Rotter, Germany		
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<b>B-1</b> <b>15:15-15:30</b>	Building indicators for improving factory resource efficiency	Chia-Yun Chiang	Taiwan
<b>B-2</b> <b>15:30-15:45</b>	Assessing carbon efficiency of materials in Japan	Sebastien Michael Rene Dente	Japan
<b>B-3</b> <b>15:45-16:00</b>	Comparative life cycle assessment of sludge disposal methods for optimal management: a case study of Xiamen, China	Lishan Xiao	China
<b>B-4</b> <b>16:00-16:15</b>	Analysis of Total Materials Requirement for Technological Change in Automobile	Kenyu Matsui	Japan
<b>B-5</b> <b>16:15-16:30</b>	Comparison and Analysis on Calculation Methods of the Waste Recycling Rate	Gil-Jong Oh	Korea

<b>16:30-16:45</b>	<b>Exhibition / Poster Display / Coffee Break</b>		
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<b>Session C: Clean cycle to reduce final sinks</b>			
<b>16:45-18:00</b>		Oral Session Room (Buzz Hall)	
<b>Chair</b>	Mario Grosso, Italy; Yong-Chul Jang, South Korea		
<b>C-1 16:45-17:00</b>	Analysis of the Dissipation of Steel Alloys Used for Vehicle Engines in the Recycling Process	Zhengyang Zhang	Japan
<b>C-2 17:00-17:15</b>	Evaluating the spatial and temporal pattern of building stocks as the potential of urban mining in Taipei City	Pei-Chiun Li	Taiwan
<b>C-3 17:15-17:30</b>	Material stock and disaster waste management	Misuzu Asari	Japan
<b>C-4 17:30-17:45</b>	Phosphorus Recovery to Reduce Depletion for a Long-term Resource Management	Demet Seyhan	Turkey
<b>C-5 17:45-18:00</b>	Automobile Power-batteries Recycling in China	Lili Liu	China
<b>19:00-21:00</b>	<b>Conference Dinner at the SODOH</b>		

**Thursday, October 26, 2017**

<b>Keynote speech 6</b>		Oral Session Room (Buzz Hall)	
<b>9:00-9:30</b>	Sinks and its relevance for modern waste management systems	Ulrich Kral	Austria
<b>Keynote speech 7</b>		Oral Session Room (Buzz Hall)	
<b>9:30-10:00</b>	Tracking the fate of Cr and Ni in steel over life cycles of multiple products: measuring circularity under consideration of quality of recycling	Shinichiro Nakamura	Japan
<b>Keynote speech 8</b>		Oral Session Room (Buzz Hall)	
<b>10:00-10:30</b>	Thermorecycling in Waste to Energy plants as a key process to effectively clean cycles and reduce final sink capacity	Leo Simon Morf	Switzerland
<b>10:30-10:45</b>	<b>Exhibition / Poster Display / Coffee Break</b>		

## Session D: Clean cycle for hazardous material prevention

10:45-12:30

Oral Session Room (Buzz Hall)

<b>Chair</b>	Leo Simon Morf, Switzerland; Shin Takahashi, Japan		
<b>D-1</b> 10:45-11:00	Time-series excess mercury analysis in China	Habuer	Japan
<b>D-2</b> 11:00-11:15	Evaluation of an emerging technology by material flow analysis– case study on a potential CI circulation system with PVC wastes recycling	Jiaqi Lu	Japan
<b>D-3</b> 11:15-11:30	Material Flow Analysis of Automobile Containing Brominated Flame Retardants in Korea	Yong-Chul Jang	Korea
<b>D-4</b> 11:30-11:45	Reducing In-Use Deca-Brominated Diphenyl Ether (deca-BDE) Stocks in Japan	Nguyen Thanh Dien	Japan
<b>D-5</b> 11:45-12:00	Considering Groundwater Exposure in Assessing Landfill Mining Alternatives	Siang-Yu Huang	Taiwan
<b>D-6</b> 12:00-12:15	The Procedural Impact of the Temporary Import Procedure to Reduce the Electronic Waste Generator from the Imported Photocopy Machine: Evidence from Indonesia	Dedi Abdul Hadi	Japan
<b>D-7</b> 12:15-12:30	Issues Related to 3R with the Disposal of Electronic Waste in India	Padmini V	India

12:30-14:00

Lunch

## Session E: 3R challenges for a sustainable society in Asia and Pacific I: Technological development

14:45-16:15

Oral Session Room (Buzz Hall)

<b>Chair</b>	Gil-Jong Oh, South Korea; Ulrich Kral, Austria		
<b>E-1</b> 14:45-15:00	Innovation in Resources-from-Waste based on Subcritical Water Reactor toward the Final Sink Realization in Asia	Jun Matsushita	Japan
<b>E-2</b> 15:00-15:15	Fly Ash Management and Dioxins in Japan	Mengmei Zhang	China
<b>E-3</b> 15:15-15:30	Treatment of MSWI Bottom Ash by Wet-CO <sub>2</sub> Gas for its Use as Ordinary Portland Cement	Sonia Muradia Sharma	Japan
<b>E-4</b> 15:30-15:45	Development of a Technology for Recovering Resources from Livestock Waste	Hiroo Kawaguchi	Japan
<b>E-5</b> 15:45-16:00	Waste utilization and gas emission from MBT process in tropical climate	Nopparit Sutthasil	Thailand

<b>E-6</b> <b>16:00-16:15</b>	Supercritical ethanol liquefaction of lemon peel bio-waste to produce bio-aviation fuel	Je-Lueng Shie	Taiwan
<b>16:15-16:30</b>	<b>Exhibition / Poster Display / Coffee Break</b>		
<b>Session F: 3R challenges for a sustainable society in Asia and Pacific II: Case studies</b>			
<b>16:30-17:45</b>	<b>Oral Session Room (Buzz Hall)</b>		
<b>Chair</b>	Shinichiro Nakamura, Japan		
<b>F-1</b> <b>16:30-16:45</b>	3Rs solutions for a resource efficient society ~ Experience from the Regional 3R Forum in Asia and the Pacific	Anupam Khajuria	Japan
<b>F-2</b> <b>16:45-17:00</b>	Waste Separation at Source Practice and Recycling Potential of The Hotel Industry in Hoi An Ancient City, Vietnam	Toan Song Pham-Phu	Japan
<b>F-3</b> <b>17:00-17:15</b>	Behavior and attitudes on household solid waste recycling in Da Nang city, Vietnam	Vu Chi Mai Tran	Japan
<b>F-4</b> <b>17:15-17:30</b>	Building a circular economy for improving material resource efficiency in end-of-life vehicles in India	Nitish Arora	India
<b>F-5</b> <b>17:30-17:45</b>	Challenges for food loss prevention from a life cycle perspective: Case study of Kyoto City	Junya Yano	Japan
<b>17:45-18:15</b>	<b>Closing ceremony</b>	<b>Oral Session Room (Buzz Hall)</b>	
<b>18:15-20:00</b>	<b>Farewell Party at Atrium, Building #1</b>		

Wednesday, October 25, 2017 & Thursday, October 26, 2017

Poster Session & Sponsor Exhibition

13:15-14:45

Exhibition & Poster Area (Banquet Hall)

*System analytical approach: Material flow and life cycle assessment*

P-1	Evaluating the evolution of the Heihe River basin using the ecological network analysis: Efficiency, resilience, and implications for water resource management policy	Ali Kharrazi	Japan
P-2	Carbon Footprint Assessment of Multimedia Online Services – Case Study of Taiwan Mobile Company	Chien-Hung Kuo	Taiwan
P-3	Dynamic Material Flow Analysis of Polybrominated Diphenyl Ethers and waste management in Korea	Hyunhee Kim	Korea
P-4	Stock, Emission, and Substitution Assessment of Decabromodiphenyl ether (DecaBDE) in Electrical and Electronic Equipment in Japan	Mianqiang Xue	Japan
P-5	Food Loss Composition and Its Greenhouse Gas Reduction Effect in the Food Service Sector	Ritsuki Yanagawa	Japan
P-6	Life Cycle Assessment for On-site Anaerobic Digestion Systems for Small-scale Food Businesses	Junya Yano	Japan
P-7	Improvement of island material cycle and cost effectiveness by introducing RDF plant to waste management system in Kinmen, Taiwan	Hsin-Tien Lin	Japan

*Control of POPs and other hazardous materials for clean cycle*

P-8	Fly Ash Management: a Review on Dioxins and other POPs	Mengmei Zhang	China
P-9	Dioxin-like Compounds in Brominated and Phosphorus Flame Retardants	Go Suzuki	Japan
P-10	Soil Contamination by Organohalogen Compounds in the Agbogbloshie E-waste Recycling Site in Accra, Ghana	Tatsuya Kunisue	Japan
P-11	Assessment of Micropollutants Released from Recycling Activities of End-of-Life Vehicles (ELV) in Northern Vietnam	Shin Takahashi	Japan
P-12	Bioavailability of Polycyclic Aromatic Hydrocarbons (PAHs) in Sea-based Waste Disposal Site Sediment Assessed by Equilibrium Passive Sampling	Satoshi Endo	Japan

<b>P-13</b>	Metal Contamination of Soils Due to the End-of-Life Ship Dismantling in the Open-Beaches	Iftakharul Alam	Japan
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*Material cycles and waste management: Technology and practice*

<b>P-14</b>	Rate of CO <sub>2</sub> absorption to neutral to weak base water	Kohei Saito	Japan
<b>P-15</b>	Preliminary Analysis of Dissolved Sulfur-Containing Molecules in Landfill Leachates by Orbitrap Mass Spectrometry	Taketoshi Kusakabe	Japan
<b>P-16</b>	Wide-pore zeolites promote thermochemical destruction of organic Cl compounds	Shunji Kawamoto	Japan
<b>P-17</b>	Collection of Fine Particles of Hygroscopic Salts in Flue Gas by Ice-cooled Copper Tube in a Coiled Form (ICTC)	Nobuhisa Watanabe	Japan
<b>P-18</b>	Change in MSW generation and population in Bangkok, Thailand	Kosuke Kawai	Japan
<b>P-19</b>	Management of E-Waste in India	PADMINI V	India
<b>P-20</b>	Comparative Study on End-of-life Vehicles and Resource Substances through Dismantling Survey	Ryo Hasegawa	Japan
<b>P-21</b>	Preliminary Estimation of Potential Electricity Generation from Landfill Site in Jakarta City	Baskoro Lokahita	Japan
<b>P-22</b>	Analysis of MBT operating cost and the moisture content of waste in Tropical regions	Satoru Ochiai	Japan
<b>P-23</b>	Unit Generation Rates for Disaster Waste and Estimation of Organic Waste-Case in 35 Wards of Kathmandu City	Raju Poudel	Japan