

# The 9th International PCB Workshop

Kobe International Convention Center, Kobe, Japan

October 9-13, 2016

## Sunday, October 9, 2016

18:00 – 21:00 Welcome Reception

## Monday, October 10, 2016

10:00 - 12:00 Citizen's Session (in Japanese)

Co-Chairs; Yoshina USUI (Hyogo Prefectural Sumahigashi High School)  
Keiichi TANNO (Kobe City College of Nursing)

### 1. Research of Micro-Plastic (MP) at Suma beach (7/23/2016)

Ikuta, Azusa; Okano, Ami; Kinugawa, Kazushi; Tsukui, Hiroki; Tokutomi, Ten; Higashisaka, Hayato; Matuo, Rinna (Amagasaki Oda senior high school/ High school Student Forum for the purpose of thinking about the environment of the Seto Inland Sea)

### 2. Where do foreign plastic bottles which have been cast ashore on the coast of Akashi Strait come from?

Ishikawa, Masaki; Funabiki, Taisei; Ninomiya, Natsuki; Nabeshima, Junya; Matsubara, Fumiya; Adachi, Nao; Morimitsu, Syunpei; Motoyama, Syoya (Hyogo prefectural Kobe commercial high school)

### 3. "Seed project" – an international understanding program through seeds exchange

Takaoka, Kae (Hyogo Prefectural Agricultural High School, "Kenno"); Students

### 4. Capacity Building for Analysis and Reduction Measures of Persistent Organic Pollutants in Serbia

Vladimir P. Beškoski (University of Belgrade, Serbia); Takeshi Nakano (Osaka Univ.)

### 5. Changes over 1999 to 2015 in awareness among female students attending the K college of nursing regarding waste reduction and dioxin issues

Tanno, Keiichi; Watabe-Tsukano, Saori (Kobe City College of Nursing); Kadowaki, Seishi (University of Tsukuba); Nakata, Yasuo (Kobe Tokiwa University); Hiroshi HONDA (Kirishima Medical Center)

### 6. Is "chemical substance" equal to "pollutant" in our society?

Toga, Tetsuo (Nihon Nohyaku Co., Ltd.)

13:00 Opening

13:30 - 14:15 **Plenary Lecturer 1-1**

**Masatoshi MORITA**, Honorary Chairman, Japan Society for Environmental Chemistry  
Professor, Ehime University

14:15 - 15:00 Coffee Break

15:00 - 17:30 **Session #1** (8 speakers) "Environment"

**PCB environmental fate and transport: Enantioselective analysis**

Co-Chairs; **Keri HORNBUCKLE** (Univ. Iowa)

**Hans LEHMLER** (Univ. Iowa)

<b>#1-1</b> <b>15:00</b>	<b>Keri C Hornbuckle</b> , University of Iowa, <b>USA</b>	<b>Legacy versus Modern: Sources of PCBs and OH-PCBs to the Environment</b>
<b>#1-2</b> <b>15:15</b>	<b>Takumi Takasuga</b> , Shimadzu-Techno Research, Ehime University, <b>Japan</b>	<b>PCB #11 (3, 3'-Dichlorobiphenyl) as a predominant PCB congeners in ambient air from unintentional formation of organic pigment production</b>
<b>#1-3</b> <b>15:30</b>	<b>Mitchell D. Erickson</b> , Mitchell D. Erickson Associates, <b>USA</b>	<b>Aroclor Mis-identification in Environmental Samples</b>
<b>#1-4</b> <b>15:45</b>	<b>Christian Bogdal</b> , Swiss Federal Institute of Technology Zurich, <b>Switzerland</b>	<b>Tracking and quantifying sources of PCBs in Zurich, Switzerland</b>
<b>16:00</b>	<b>Q &amp; A</b>	
<b>#1-5</b> <b>16:15</b>	<b>Jacob de Boer</b> , VU University, Amsterdam, <b>Netherland</b>	<b>Capacity building for PCB analysis around the world</b>
<b>#1-6</b> <b>16:30</b>	<b>Jonathan N. Hogarh</b> , Kwame Nkrumah University of Science and Technology, <b>Ghana</b>	<b>Atmospheric contamination from polychlorinated biphenyls in Ghana</b>
<b>#1-7</b> <b>16:45</b>	<b>Pu Wang</b> , Research Center for Eco- Environmental Sciences, Chinese Academy of Sciences, <b>China</b>	<b>Polychlorinated biphenyls in the ambient air in the King George Island, west Antarctica: temporal trend, chiral signature and source implications</b>
<b>#1-8</b> <b>17:00</b>	<b>Hans-Joachim Lehmler</b> , The University of Iowa, <b>USA</b>	<b>Chiral Polychlorinated Biphenyl Transport, Metabolism and Distribution: An Update</b>
<b>17:15</b>	<b>Q &amp; A</b>	

17:30 - 18:00 Light Meal

**18:00 - 21:00 Session #2 (12 speakers) "Emission"**

**Global inventory and management: National and international activities to limit human and environmental impact of PCBs**

**Co-Chairs; Roland WEBER, (POPs Environmental Consulting, Stuttgart)**

**Niklas JOHANSSON (Karolinska Institute and Melica Biologkonsult)**

<b>#2-1</b> <b>18:00</b> (skype)	<b>Jacqueline Alvarez,</b> UNEP Overview & PEN	<b>Efforts toward the elimination of PCBs</b>
<b>#2-2</b> <b>18:15</b>	<b>Carmela Romero Centeno,</b> United Nations Industrial Development Organization (UNIDO) activities, <b>Austria</b>	<b>Promoting Industrial Development through the UNIDO PCB Program</b>
<b>#2-3</b> <b>18:30</b>	<b>Leah Aurea U. Texon,</b> UNIDO, <b>Philippines</b>	<b>Polychlorinated Biphenyl (PCB) Management Initiatives in the Philippines</b>
<b>#2-4</b> <b>18:45</b> <b>20min</b>	<b>Rio Deswandi &amp; Edward Nixon Pakpahan,</b> UNIDO, <b>Indonesia</b>	<b>Conducting PCBs Inventory under Incomplete Information: An Indonesia's Experience</b>
<b>#2-5</b> <b>19:05</b> <b>10min</b>	<b>Zheng Peng,</b> Foreign Economic Cooperation Office, Ministry of Environmental Protection of China, <b>China</b>	<b>Environmental standards, specification and guidance of Environmental Sound Management and disposal of polychlorinated biphenyls waste in China</b>
<b>#2-6</b> <b>19:15</b> <b>10min</b>	<b>Xinhua Gao,</b> Foreign Economic Cooperation Office, Ministry of Environmental Protection of China, <b>China</b>	<b>Investigation and Disposal of Electrical Devices Containing PCBs in China</b>
<b>#2-7</b> <b>19:25</b>	<b>Nelson MANDA / John Pwamang,</b> UNITAR, <b>Switzerland</b>	<b>Case Study of the GEF / UNITAR / UNDP / EPA-Ghana Project on Capacity Building for the Elimination of PCBs in Ghana</b>
<b>#2-8</b> <b>19:40</b>	<b>Vladimir P Beškoski,</b> Faculty of Chemistry, University of Belgrade, <b>Serbia</b>	<b>PCBs in Serbia, history of usage and present situation - can bioremediation solve this problem?</b>
<b>#2-9</b> <b>19:55</b>	<b>Åhr Evertson,</b> Upplands Väsby Municipality, <b>Sweden</b>	<b>An Investigation of Occurrence and Transport of PCB in the Stream Väsbyån and Lake Oxundasjön in Upplands Väsby Municipality, Sweden</b>
<b>#2-10</b> <b>20:10</b>	<b>Roland Weber,</b> POPs Environmental Consulting, <b>Germany</b>	<b>Towards Systematic Tracking of PCB-Sources for Safe Food Production</b>
<b>#2-11</b> <b>20:25</b>	<b>Niklas Johansson,</b> Melica Biologkonsult, <b>Sweden</b>	<b>National Follow-up to the 2010 Inventory of Identification, Remediation and Destruction of PCB in Sealant and Flooring Materials</b>
<b>#2-12</b> <b>20:40</b>	<b>Scott N. Spak,</b> School of Urban & Regional Planning / Public Policy Center / Department of Civil & Environmental Engineering, University of Iowa, <b>USA</b>	<b>Toward Comprehensive Global Urban-scale PCB Source &amp; Emissions Inventories</b>

**Tuesday, October 11, 2016**

**9:30 - 10:15 Plenary Lecturer 2-1**

**Masutaka FURUE, Professor, Kyusyu University**

**“Yusho and its latest findings; dioxin intoxication and its management”**

**10:15 - 10:45 Plenary Lecturer 2-2 (via internet/skype)**

**Leon GUO, Director, National Institute of Environmental Health Sciences,  
National Health Research Institutes, Zhunan, Taiwan.**

**“Cancer risk estimation in Yucheng people highly exposed to PCBs and PCDFs  
based on serum levels 15-24 years after exposure”**

10:45 - 11:00 Coffee Break

**11:00 - 13:15 Session #3 (8 speakers) "Cancer/Toxicity/Yusho"**

**Toxicity and carcinogenicity of PCBs**

**Co-Chairs; Takesumi YOSHIMURA (Foundation for Ambulance Service Development)**

**Beatrice LAUBY-SECRETAN (International Agency for Research on Cancer)**

<b>#3-1 11:00</b>	<b>Miroslav Machala, Veterinary Research Institute, Brno, Czech Republic</b>	<b>In vitro toxicity profiling of low-molecular-weight PCB congeners</b>
<b>#3-2 11:15</b>	<b>Wei Feng, University of California, Davis, USA</b>	<b>Enantioselective actions of PCB95 atropisomers toward ryanodine receptors (RyRs) and hippocampal neurons</b>
<b>#3-3 11:30</b>	<b>Beatrice Lauby-Secretan, International Agency for Research on Cancer, Lyon, France</b>	<b>Linking exposure profile, mechanisms of carcinogenicity, and target organs</b>
<b>#3-4 11:45</b>	<b>Brent L. Finley, Cardno ChemRisk, USA</b>	<b>Does PCB Exposure Cause Non-Hodgkins Lymphoma? A Weight Of Evidence Evaluation</b>
<b>#3-5 12:00</b>	<b>Gabriele Ludewig, University of Iowa, USA</b>	<b>Polychlorinated biphenyls (PCBs) target your telomeres - which PCB, how, and what could be the consequences?</b>
<b>#3-6 12:15</b>	<b>Yungang Liu, School of Public Health, Southern Medical University, China</b>	<b>Human CYP2E1 is a major bioactivating enzyme responsible for the mutagenicity of polychlorinated biphenyls</b>
<b>#3-7 12:30</b>	<b>Tsuguhide Hori, Fukuoka Institute of Health and Environmental Sciences, Japan</b>	<b>Distribution of dioxins in sets of biological samples collected from Japanese pregnant and nursing woman</b>
<b>#3-8 12:45</b>	<b>Shusaku Hirakawa, Fukuoka Institute of Health and Environmental Sciences, Japan</b>	<b>Accumulation properties of polychlorinated biphenyl congeners in Yusho patients and assessment of their cytochrome P450-dependent metabolism by in silico docking simulation</b>
<b>13:00</b>	<b>Q &amp; A</b>	

13:15 - 14:00 Lunch (Corporate Technology Seminar 1)

**14:00 - 15:30 Poster session 1** (Odd Number, Tuesday, October 11)

15:30 - 15:45 Coffee Break

**15:45 - 18:15 Session #4 (8 speakers) "Metabolism"**

**PCB metabolism and endocrine disruption**

**Co-Chairs; T Michael DUFFE (Univ. Iowa)**

**Margaret JAMES (Univ. Florida)**

<b>#4-1</b> <b>15:45</b>	<b>Margaret O James,</b> University of Florida, <b>USA</b>	<b>Recent advances in understanding PCB metabolism, both lower chlorinated and higher chlorinated congeners</b>
<b>#4-2</b> <b>16:00</b>	<b>Hideyuki Inui,</b> Biosignal Research Center, Kobe University, Japan / Graduate School of Agricultural Science, Kobe University, <b>Japan</b>	<b>Structural determinants of species differences on metabolism of dioxin-like polychlorinated biphenyls by mammalian cytochrome P450 monooxygenases</b>
<b>#4-3</b> <b>16:15</b>	<b>Nobuyuki Koga,</b> Nakamura Gakuen University, <b>Japan</b>	<b>Distribution and excretion of 2,2',3,4',5,5',6-heptachlorobiphenyl (CB187) and its metabolites in rats and guinea pigs.</b>
<b>#4-4</b> <b>16:30</b>	<b>Kei Nomiyama,</b> Center for Marine Environmental Studies (CMES), Ehime University, <b>Japan</b>	<b>Toxicological assessment of PCBs and OH-PCBs in the brain of dogs using metabolomics approach</b>
<b>#4-5</b> <b>16:45</b>	<b>Hazuki Mizukawa,</b> Hokkaido University, <b>Japan</b>	<b><i>in vivo</i> analysis of PCB metabolic capacities and effects on the thyroid hormone in cats</b>
<b>#4-6</b> <b>17:00</b>	<b>Satomi Mizukami Murata,</b> Institute for Agro-Environmental Sciences, NARO / The Japan Society for the Promotion of Science, <b>Japan</b>	<b>Comparison of the effects of 20 kinds-OH-PCBs on PC12 cells</b>
<b>#4-7</b> <b>17:15</b>	<b>Michael W. Duffel,</b> University of Iowa, <b>USA</b>	<b>Sulfation in the Metabolism and Potential Endocrine Toxicities of Airborne PCBs</b>
<b>#4-8</b> <b>17:30</b>	<b>Peter Behnisch,</b> BioDetection Systems bv, Amsterdam, <b>Netherlands</b>	<b>The "Dirty Dozend" POPs &amp; Other Pollutants: Toxicological Profiling by <i>in vitro</i> Bioassays</b>
<b>17:45</b>	<b>Q &amp; A</b>	

19:00 - 21:15 Cruising & Banquet

## Wednesday, October 12, 2016

### 9:30 - 10:15 Plenary Lecturer 3

**Shin-ichi SAKAI, Professor, Kyoto University**

**“PCB Behavior and Control from the Points of Waste Destruction and Byproducts Formation”**

10:15 - 10:30 Coffee Break

### 10:30 - 13:00 Session #5 (7 speakers) "Human Exposures"

**Co-Chairs; Nobuyuki KOGA (Nakamura Gakuen Univ.)**

**Tomas TRNOVEC (Slovak Medical Univ.)**

<b>#5-1</b> <b>10:30</b>	<b>Rainer Malisch,</b> RURL, CVUA-FR, <b>Germany</b>	<b>Results of determination of ndl-PCBs, dl-PCBs and PCD/F in human milk samples of WHO/UNEP-coordinated exposure studies</b>
<b>#5-2</b> <b>10:45</b>	<b>Risa Kakimoto,</b> Faculty of Agriculture, Saga University, <b>Japan</b>	<b>Variability and reliability of PCB concentrations in multiple breast milk samples collected from the same mothers</b>
<b>#5-3</b> <b>11:00</b>	<b>Shin Takahashi,</b> Center of Advanced Technology for the Environment, Graduate School of Agriculture, Ehime University, Japan / Center for Marine Environmental Studies, Ehime University, <b>Japan</b>	<b>PCBs and BFRs in dust and human blood samples from end of life vehicle (ELV) recycling sites in northern Vietnam: comparison with E-waste recycling sites</b>
<b>#5-4</b> <b>11:15</b>	<b>Peter Behnisch,</b> BioDetection Systems bv, Amsterdam, <b>Netherlands</b>	<b>Bio-Monitoring of Chlorinated and Brominated PCB/DIOXIN Contaminated Areas and their Impact for Environment, Animals and Humans</b>
<b>#5-5</b> <b>11:30</b>	<b>Andres Martinez,</b> Department of Civil & Environmental Engineering, IIHR-Hydroscience and Engineering, The University of Iowa, Iowa City, IA, <b>USA</b>	<b>Continuous release of PCBs from New Bedford Harbor results in elevated concentrations in the surrounding air</b>
<b>#5-6</b> <b>11:45</b>	<b>Majbrith Langeland,</b> SWECO, <b>Denmark</b>	<b>Large national investigation of PCBs in indoor air in homes, offices, institutions, universities, laboratories, storage spaces and workshops</b>
<b>#5-7</b> <b>12:00</b>	<b>Bernhard Hennig,</b> University of Kentucky, <b>USA</b>	<b>Healthful Nutrition: A Life-Long Intervention against Environmental Insults</b>
<b>12:15</b>	<b>Q &amp; A</b>	

13:00 - 14:00 Lunch (Corporate Technology Seminar 2)

### 14:00 - 15:30 Poster session 2 (Even Number, Wednesday, October 12)

15:30 - 15:45 Coffee Break

**15:45 - 18:25 Session #6 (7 speakers) "Risk Evaluation"**

**PCB risk evaluation and environmental protection**

**Co-Chairs; Yasuhiro HIRAI (Kyoto Univ.)**

**David OSTERBERG (Univ. Iowa)**

<b>#6-1 15:45</b>	<b>Yasuhiro Hirai, Kyoto University, Japan</b>	<b>Emissions of PCBs from thermal sources and PCB waste in Japan</b>
<b>#6-2 16:05</b>	<b>Yo Osada, Japan Industrial Waste Management Foundation, Japan</b>	<b>Current measures to detoxify low-level PCB wastes in Japan</b>
<b>#6-3 16:25</b>	<b>Leesun Kim, Kyungpook National University, Republic of Korea</b>	<b>Monitoring and Risk Assessment of Polychlorinated Biphenyls in Agricultural Area in Ulsan</b>
<b>#6-4 16:45</b>	<b>John Morrow Bierschenk, TerraTherm, Inc. / SheGoTec, Inc, USA</b>	<b>Mechanisms and Case Studies for InSitu and ExSitu Thermal Remediation of PCB and Dioxin</b>
<b>#6-5 17:05</b>	<b>Rune Ostergaard Haven, Sweco Denmark A/S, Denmark</b>	<b>Evaluation of remediation and intervention methods for PCB-contaminated buildings based on data from 33 remediation projects in Denmark</b>
<b>#6-6 17:25</b>	<b>David Osterberg, University of Iowa, USA</b>	<b>Using Hollywood to make protective policy on chemicals</b>
<b>#6-7 17:45</b>	<b>Madeleine K Scammell, Department of Environmental Health, Boston University School of Public Health, USA</b>	<b>Community Engagement and Research Translation of PCB monitoring in ambient air around New Bedford Harbor, MA. USA</b>
<b>18:05</b>	<b>Q&amp;A</b>	

18:25 – 19:00 Closing

19:00 – 21:00 Farewell Dinner

## Poster presentation

**Odd Number; Poster session 1** 14:00 – 15:30, Tuesday, October 11

**Even Number; Poster session 2** 14:00 – 15:30, Wednesday, October 12

<b>P-01 - P-30</b>	<b>Session #1; PCB environmental fate and transport: Enantioselective analysis</b>
<b>P-31 - P-33</b>	<b>Session #2; Global inventory and management: National and international activities to limit human and environmental impact of PCBs</b>
<b>P-34</b>	<b>Session #3; Toxicity and carcinogenicity of PCBs</b>
<b>P-35 – P-46</b>	<b>Session #4; PCB metabolism and endocrine disruption</b>
<b>P-47 – P-51</b>	<b>Session #5; Human exposures</b>
<b>P-52 – P-77</b>	<b>Session #6; PCB risk evaluation and environmental protection</b>

<b>P-01</b>	<b>Guorui Liu</b> Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences, <b>China</b>	<b>Polychlorinated biphenyl (PCBs) profiles in cement kilns co-processing sewage sludge</b>
<b>P-02</b>	<b>Songyan Du</b> Rutgers University, <b>USA</b>	<b>Data Mining and Source Apportionment to Understand Sources and Fate of PCBs</b>
<b>P-03</b>	<b>Yingming Li</b> Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences, <b>China</b>	<b>Occurrence of PCB 11 in the yellow pigment, soil and sediment of China</b>
<b>P-04</b>	<b>Benoit Van Aken</b> Temple University, <b>USA</b>	<b>2,5-Dichlorobiphenyl (2,5-DCB) - but not its toxic hydroxylated derivative (4'-OH-2,5-DCB) - elicits a safener-like response in the model plant Arabidopsis thaliana</b>
<b>P-05</b>	<b>Erika Isono</b> Graduate School of Agricultural Science, Kobe University, <b>Japan</b>	<b>Congener-specific uptake of polychlorinated biphenyls by transporting factors in Cucurbita pepo</b>
<b>P-06</b>	<b>Niklas Johansson</b> Melica Biologkonsult / Karolinska Institutet, <b>Sweden</b>	<b>Unforeseen Severe PCB Contamination Recently Detected in a Swedish Lake</b>
<b>P-07</b>	<b>Roland Weber</b> POPs Environmental Consulting, <b>Germany</b>	<b>Long term experience and standardization of biomonitoring PCBs in Bavaria/Germany</b>



<b>P-08</b>	<b>Kensaku Kakimoto</b> Osaka prefectural institute of public health, <b>Japan</b>	<b>Organic halogen compounds in red-crowned cranes lived in Hokkaido, Japan</b>
<b>P-09</b>	<b>Adam Jan Grochowalski</b> Krakow University of Technology, <b>Poland</b>	<b>Determination of dioxins/furans, dl-PCBs, ndl-PCBs in eggs from caged hens, free range and certified organic farms</b>
<b>P-10</b>	<b>Min-Kyu Park</b> Ulsan National Institute of Science and Technology, <b>Republic of Korea</b>	<b>Influence of industrial activities on the contamination patterns of polychlorinated biphenyls in coastal sediments collected from major bays in South Korea</b>
<b>P-11</b>	<b>Jin-Woo Jeon</b> Ulsan National Institute of Science and Technology, <b>Republic of Korea</b>	<b>Nationwide monitoring of polychlorinated biphenyls in soils collected from South Korea</b>
<b>P-12</b>	<b>Yoshikatsu Takazawa</b> National Institute for Environmental Studies, <b>Japan</b>	<b>Background air monitoring of polychlorinated biphenyls in Hateruma Island, Japan</b>
<b>P-13</b>	<b>Takeshi Nakano</b> Osaka University, <b>Japan</b>	<b>PCB monitoring in air using passive sampling</b>
<b>P-14</b>	<b>Chisato Matsumura</b> Hyogo Prefectural Institute of Environmental Sciences, <b>Japan</b>	<b>Trends in PCB Concentrations of Environmental samples for recent 40 years</b>
<b>P-15</b>	<b>Qi Wang</b> University of Shizuoka, <b>Japan</b>	<b>Concentrations of Halogenated Polycyclic Aromatic Hydrocarbons in Atmosphere in Japan</b>
<b>P-16</b>	<b>Daisy Ramirez-Ortiz</b> University of Miami, <b>USA</b>	<b>A targeted campaign to increase awareness of PCB contamination in Guánica Bay, Puerto Rico among high school children</b>
<b>P-17</b>	<b>Hai Le Thi Le</b> Hanoi University of Natural Resources and Environment, Ministry of Natural Resource and Environment, <b>Viet Nam</b>	<b>Initial studies on toxic accumulate PCBs in estuaries in the Northeastern region of Vietnam</b>
<b>P-18</b>	<b>Yoshimasa Konishi</b> Osaka Prefectural Institute of Public Health, <b>Japan</b>	<b>Monitoring of PCBs in aquaculture freshwater fish in Ho Chi Minh City, Vietnam</b>
<b>P-19</b>	<b>Taizo Tsuda</b>	<b>Trends of PCB in fish from lakes in Japan, Sweden and USA</b>

	Lake Biwa Environmental Research Institute, <b>Japan</b>	
<b>P-20</b>	<b>Shunji Hashimoto</b> National Institute for Environmental Studies, <b>Japan</b>	<b>Data Mining for Targeted and Non-Targeted Monitoring of Environmental Pollutants by Using GCxGC/HRTofMS</b>
<b>P-21</b>	<b>Lirong Gao</b> Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences, <b>China</b>	<b>Simultaneous analysis of polychlorinated biphenyls and polychlorinated naphthalenes by isotope dilution comprehensive two-dimensional gas chromatography high-resolution time-of-flight mass spectrometry</b>
<b>P-22</b>	<b>Mari Takazawa</b> Chubu University, <b>Japan</b>	<b>Quantitative and Qualitative Analysis of halogenated organic compounds unintentionally generated in Waste Water Treatment Plant</b>
<b>P-23</b>	<b>Satoshi Endo</b> Osaka City University, <b>Japan</b>	<b>Comparative evaluation of polyethylene and poly(oxymethylene) equilibrium passive samplers for measuring sediment pore water concentrations of PCBs</b>
<b>P-24</b>	<b>Hiromasa Fujii</b> Nihon BUCHI K.K, <b>Japan</b>	<b>Development of high throughput concentration method for the sample preparation prior to PCB analysis</b>
<b>P-25</b>	<b>Hiroshi Takakuwa</b> Agilent Technologies, <b>Japan</b>	<b>Development of PCBs Analysis to Supply Reclaimed Oil by Fast-GC Triple Stage Quadrupoles MS/MS with 13 Compounds Quantitation Method</b>
<b>P-26</b>	<b>Haruhiko Miyagawa</b> Shimadzu corporation, <b>Japan</b>	<b>Quantitative Determination of Dioxins in Drinking Water by Isotope Dilution Triple Quadrupole GC-MS/MS</b>
<b>P-27</b>	<b>Miyuki Yamamoto</b> Kaneka Techno Research Corporation, <b>Japan</b>	<b>Enantioselective Analysis of Polychlorinated Biphenyls (PCBs) by HRGC/MS</b>
<b>P-28</b>	<b>Takae Takeuchi</b> Nara Women's University <b>Japan</b>	<b>Ab initio Study of Reaction Mechanisms for Formation of PCB Isomers With o-Dichlorophenyl Radicals</b>
<b>P-29</b>	<b>Tomoyuki Satoh</b> Tohoku Afforestation & Environmental Protection	<b>About reactivity of the PCB at the time of the GC/MS(NICI) measurement</b>

	Company,Ltd. Environmental Analysis Center, <b>Japan</b>	
<b>P-30</b>	<b>Akifumi Eguchi</b> Center for Preventive Medical Sciences, Chiba University, <b>Japan</b>	<b>Development of Simple Analytical Methods of Polychlorinated Biphenyls (PCBs) in Human Serum by Gas Chromatography Negative Ion Chemical Ionization Quadrupole Mass Spectrometry</b>
<b>P-31</b>	<b>Darryl Frank Bawdon</b> Manitoba Hydro, <b>Canada</b>	<b>The Management of Polychlorinated Biphenyls in Manitoba Hydro</b>
<b>P-32</b>	<b>Bounmany SOULIDETH</b> National Resources and Environment Institute, <b>Laos</b>	<b>PCB Management at the Energy Sector of Laos PDR</b>
<b>P-33</b>	<b>Mghames, Lama</b> PMU / Ministry of Environment, <b>Lebanon</b>	<b>PCBs Management in the Power Sector Project in the Republic of Lebanon</b>
<b>P-34</b>	<b>Akira Kubota</b> Obihiro University of Agriculture and Veterinary Medicine, <b>Japan</b>	<b>Reciprocal cross-talk between Ahr2 and Pxr signaling in response to PCB126 and pregnenolone in developing zebrafish</b>
<b>P-35</b>	<b>Erika Goto</b> Graduate School of Agricultural Science, Kobe University, <b>Japan</b>	<b>Metabolic fates of CB118 by cytochrome P450 monooxygenase from soil bacterium under complex pollution and its structural basis</b>
<b>P-36</b>	<b>Hiroaki Kuroki</b> Daiichi University, <b>Japan</b>	<b>Formation of hydroxylated sulfur-containing PCB metabolites from MeSO-PCB and MeSO<sub>2</sub>-PCB in vitro and enantioselective analysis of unchanged MeSO-PCB and MeSO<sub>2</sub>-PCB</b>
<b>P-37</b>	<b>Haruna Nagayoshi</b> Osaka Prefectural Institute of Public Health, <b>Japan</b>	<b>Enantioselective metabolism of PCB 95 and 183 by human metabolic enzymes</b>
<b>P-38</b>	<b>Kohki Takaguchi</b> Center for Marine Environmental Studies (CMES), Ehime University, <b>Japan</b>	<b>Disruption of mitochondrial functions by PCB exposure in the dog brain: Toxicological assessment using cross omics.</b>
<b>P-39</b>	<b>Shinji Takeuchi</b> Hokkaido Institute of Public Health, <b>Japan</b>	<b>Effects of unintentional PCBs in pigments and chemical products on transcriptional activity via 10 nuclear receptors and aryl hydrocarbon receptor</b>

<b>P-40</b>	<b>Hiroyuki Kojima</b> Hokkaido Institute of Public Health, <b>Japan</b>	<b>Characterization of thyroid hormone receptor and retinoid X receptor activities in 100 hydroxylated polychlorinated biphenyls using CHO-K1 cell-based transactivation assays</b>
<b>P-41</b>	<b>Eric Uwimana</b> University of Iowa, <b>USA</b>	<b>Biotransformation of prochiral polychlorinated biphenyls (PCBs): a novel source of chiral PCB metabolite</b>
<b>P-42</b>	<b>Yuka Yoshinouchi</b> Center for Marine Environmental Studies (CMES), Ehime University, <b>Japan</b>	<b>Risk assessment of disruption of estrogen receptor signaling pathway by OH-PCBs in Baikal seals; application of <i>in vitro</i> and <i>in silico</i> approaches</b>
<b>P-43</b>	<b>Saya Tamura</b> Ehime University, <b>Japan</b>	<b>Hepatic transcriptome analysis to assess the effects of polychlorinated biphenyls on beagle dogs</b>
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<b>P-45</b>	<b>Akifumi Eguchi</b> Center for Preventive Medical Sciences, Chiba University, <b>Japan</b>	<b>Quantitative structure-retention relationships (QSRR) models for prediction of gas chromatography retention of methoxylated polychlorinated biphenyl using regularized multiple linear regressions</b>
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<b>P-47</b>	<b>Mireille Harmouche Karaki</b> Saint Joseph University, <b>Lebanon</b>	<b>Serum concentrations of polychlorinated biphenyls (PCBs) in a Lebanese population: ENASB study</b>
<b>P-48</b>	<b>Tomas Trnovec</b> Faculty of Public Health, Slovak Medical University, <b>Slovakia</b>	<b>Environmental Exposure to Polychlorinated Biphenyls and Blood Levels of Retinoids in an Adult Population of Eastern Slovakia</b>
<b>P-49</b>	<b>Yuki Haga</b> Hyogo Prefectural Institute of Environmental Sciences, <b>Japan</b>	<b>Measurement of Hydroxylated Polychlorinated Biphenyls (OH-PCBs) in PCB transport worker's urine for a safety check</b>

<b>P-50</b>	<b>Takashi Miyawaki</b> Fukuoka Institute of Health and Environmental Sciences, <b>Japan</b>	<b>Application of compound-specific carbon isotopic analysis to PCB heat-transfer medium used in the deodorization process of Kanemi rice oil</b>
<b>P-51</b>	<b>Somiranjan Ghosh</b> Howard University, <b>USA</b>	<b>PCBs exposure and future cancer incidences in Slovak children: An assessment from molecular finger printing through experimental and epidemiological investigation</b>
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<b>P-56</b>	<b>Guijin Su</b> Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences, <b>China</b>	<b>The destruction of chlorinated biphenyls on the synthesized ternary Ni-Co-Fe-O nanosphere</b>
<b>P-57</b>	<b>Biljana D. Škrbić</b> University of Novi Sad, Faculty of Technology, <b>Serbia</b>	<b>Concentration, distribution, source and risk assessment of polychlorinated biphenyls in urban soils of Novi Sad, Serbia</b>
<b>P-58</b>	<b>Mario Tabucanon</b> <b>Eiko Ishikawa (presenter)</b> United Nations University Institute for the Advanced Study of Sustainability	<b>Monitoring and Management of Persistent Organic Pollutants (POPs) in Asia: Capacity Development for Analysis of Environmental Chemicals Focusing on PCBs through the UNU-IAS - Shimadzu Project</b>

<b>P-59</b>	<b>Shinji Takahara</b> Water & Air Quality Control Division, Hyogo Prefectural Government, <b>Japan</b>	<b>Initiatives of Hyogo Prefectural Government in regards to the treatment of liquid PCBs and dredge soil containing PCBs</b>
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<b>P-61</b>	<b>Hideki Kakutani</b> Faculty of Pharmaceutical Sciences, Setsunan University, <b>Japan</b>	<b>Cytochrome P450 Inductivity of Coplanar Polybrominated and/or Chlorinated Biphenyls (Co-PXBs)</b>
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<b>P-63</b>	<b>Masakazu Makino</b> University of Shizuoka, Graduate School of Integrated Pharmaceutical and Nutritional Sciences, <b>Japan</b>	<b>Docking calculation of h-ThR<math>\alpha</math>1 and poly- halogenated phenols including OH-PCBs.</b>
<b>P-64</b>	<b>Hiroshi Moriwaki</b> Shinshu University, Faculty of Textile Science and Technology, <b>Japan</b>	<b>Removal of PCB and POPs from soil using the composite material containing iron and activated carbon powder in the freezing- dried calcium alginate matrix</b>
<b>P-65</b>	<b>Kosuke Kawaguchi</b> Kyoto University, <b>Japan</b>	<b>Aerobic toluene / biphenyl degradation by the denitrifying <i>Thauera</i> sp. strain DNT-1</b>
<b>P-66</b>	<b>Shigeyoshi Tagashira</b> Kobelco Eco-Solutions Co., Ltd. <b>Japan</b>	<b>Treatment Technologies of PCB oil and PCB- contaminated wastes</b>
<b>P-67</b>	<b>Tsuyoshi Yamada</b> Gifu Pharmaceutical University, <b>Japan</b>	<b>Pt/C-catalyzed dehalogenation of aromatic halides and direct hydrogenation of aromatic nuclei using <i>i</i>-PrOH-H<sub>2</sub>O combination as a hydrogen source</b>

<b>P-68</b>	<b>Xue Zhou</b> Nagoya University, <b>Japan</b> / China University of Geosciences (Beijing)	<b>Reductive dechlorination of hexachlorobenzene (HCB) to benzene by a microbial consortium enriched from a contaminated sediment</b>
<b>P-69</b>	<b>Mohammednoor Altarawneh</b> Murdoch University, <b>Australia</b>	<b>Toxicants from Thermal Decomposition of Three Structurally-Related Halogenated Biphenyls</b>
<b>P-70</b>	<b>Yadi Zhang</b> School of Space and Environment, Beihang University <b>China</b>	<b>Inhibition effect on PCB and chlorobenzene in iron ore sintering process with nitrogen and sulphur compounds</b>
<b>P-71</b>	<b>Shunji Kawamoto</b> Osaka Institute of Technology <b>Japan</b>	<b>Thermochemical destruction of 1,2,3,4- Tetrachlorobenzene enhanced by zeolites</b>
<b>P-72</b>	<b>Hideaki Miyata</b> Setsunan University <b>Japan</b>	<b>New suction/cleaning technique using our newly developed oil-water separation detergent and continuation water-oil separation for waste transformers contaminated with a low level of PCBs</b>
<b>P-73</b>	<b>Yoshinori Kato</b> NAITOH Environmental Science Co., Ltd. <b>Japan</b>	<b>Introduction of the Laboratory Information Management System for the presence of PCBs contamination in insulating oil</b>
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<b>P-75</b>	<b>Aleksandra N Djurić</b> Faculty of Chemistry, University of Belgrade, <b>Serbia</b>	<b>Bioremediation of polychlorinated biphenyls in river sediment: a laboratory study</b>
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<b>P-77</b>	<b>Masaaki Hosomi,</b> Tokyo University of Agriculture and Technology, <b>Japan</b>	<b>A low-cost decomposition process using charcoal as a thermal source and adsorbent for PCB-contaminated soil from pigment manufacturing</b>

