

- 10th NICE CONFERENCE 2025 PROGRAM - DAY1 - **PAGE4**
- 10th NICE CONFERENCE 2025 PROGRAM - DAY2 - **PAGE6**
- 10th NICE CONFERENCE 2025 PROGRAM - DAY3 - **PAGE7**
- LIST OF POSTERS - **PAGE8**
- LIST OF WORK SHOP - **PAGE11**

| PROGRAM - DAY0 Friday, 25 July 2025 | |
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| 3:00 PM | Registration Venue : Foyer, Level 2, Yamagata Kokusai Hotel |
| 6:00 PM | Welcome Reception Venue : FUJI, Level 3, Yamagata Kokusai Hotel |

| 10th NICE CONFERENCE 2025 PROGRAM - DAY1 Saturday, 26 July 2025 **Venue: HEISEI / EAST, Level 2, Yamagata Kokusai Hotel | |
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| 8:30 AM | Registration Venue : Foyer, Level 2, Yamagata Kokusai Hotel |
| 9:00 AM | Opening Ceremony Welcome Address by International Committee (Japan) Officiating Speech by Prof Yasunao Kuriyama, Yamagata University Center for STEAM Education, Japan |
| KEYNOTE1 | Chairperson : Dr Soon Ting Kueh Institut Kimia Malaysia, Malaysia |
| 9:30 AM | Keynote Lecture 1 (PL1) - Changing the Trajectory of Chemistry Education Through Green Sustainable Chemistry Prof Mageswary Karpudewan, Universiti Sains Malaysia, Malaysia |
| Oral Session1-3 | Chairperson : Prof Mauro Mocerino Curtin University, Australia |
| 10:00 AM | Oral Presentation 1 (OP1) - Applying Generative AI in Student Assessment: Insights from Google Gemini 2.0 Prof Mei-Hung Chiu, National Taiwan Normal University, Taiwan |
| 10:20 AM | Oral Presentation 2 (OP2) - Shedding Light on Ambiguities: Two Topics on Gibbs Energy and Equilibrium in Pre-University Chemistry Education Mr Motomu Kaneko, Taki Junior & Senior High School, Japan |
| 10:40 AM | Oral Presentation 3 (OP3) - From Intimidation to Interaction: Making Chemical Safety Relatable through Board Games Asst Prof Yvonne Shuen Lann Choo, Xiamen University Malaysia, Malaysia |
| 11:00 AM | Break |
| Oral Session4-6 | Chairperson : Prof Mei-Hung Chiu National Taiwan Normal University, Taiwan |
| 11:10 AM | Oral Presentation 4 (OP4) - An exploration of Process Oriented Guided Inquiry Learning in secondary chemistry classes Prof Mauro Mocerino, Curtin University, Australia |
| 11:30 AM | Oral Presentation 5 (OP5) - A Study on Promoting Elementary Students' Construction of Research Questions in Chemistry Science Fairs through Generative AI and Cognitive Apprenticeship-Based Instructional Design Ms Shih-Min Chang, National Taipei University of Education, Taiwan |

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| 11:50 AM | Oral Presentation 6 (OP6) - Instruction on High School Chemistry Lab Reports Using Generative AI -Developing the ability to distinguish between appropriate and inappropriate use- Ms Tomomi Samejima, Tokyo Gakugei University International Secondary School, Japan |
| 12:10 PM | Lunch |
| 2:30 PM | Coffee Break |
| KEYNOTE2 | Chairperson : Prof Chin-Cheng Chou National Taipei University of Education, Taiwan |
| 3:00 PM | Keynote Lecture 2 (PL2) - From Taipei to the World: Reflections on the International Chemistry Olympiad and Taiwan's Training Experience at NTNU Distinguished Prof Elise Yu-Tzu Li, National Taiwan Normal University, Taiwan |
| Oral Session7-9 | Chairperson : Project Associate Prof Akira Ikuo Tokyo Gakugei University, Jpan |
| 3:30 PM | Oral Presentation 7 (OP7) - Designing Professional Learning for “Out of Field” Teachers of Years 7-10 Chemistry Mr Mick Moylan, University of Melbourne, Australia |
| 3:50 PM | Oral Presentation 8 (OP8) - Creating Art Installations That Combine Nature and Culture in Chemistry Class Prof Daisuke Kajiya, Liberal Arts Education Center, Ashikaga University, Japan |
| 4:10 PM | Oral Presentation 9 (OP9) - Enhancing Inclusive and Equitable STEM Education in Rural Schools – A Portable Chemistry Laboratory Kit Prof Siong Fong Sim, Universiti Malaysia Sarawak, Malaysia |
| Oral Session10-11 22 | Chairperson : Dr Suziyana Hassim SMK Tengku Menteri, Malaysia |
| 4:30 PM | Oral Presentation 10 (OP10) - pH Changes of River Water in STEAM Mr Toshio Hirai, Osaka Prefectural Nagao High School, Japan |
| 4:50 PM | Oral Presentation 11 (OP11) - Development of Teaching Materials on Spontaneity of Chemical Reactions: Solid Divalent Metals with Aqueous Divalent Metal Cations using Theoretical and Microscale Experimental Approach Prof Tetsuo Nakagawa, Kobe College, Japan |
| 5:10 PM | Oral Presentation 22 (OP22) –A lesson incorporating STEAM education Viewed through cutting-edge VR technology Ms Hiromi Tsuchiya, Tokyo Metropolitan Musashi High School, Japan |
| 5:30 PM | Break |
| Oral Session23-26 | Chairperson : Mr Mick Moylan University of Melbourne, Australia |
| 5:40 PM | Oral Presentation 23 (OP23) – What did pre-service chemistry teachers think after conducting two experiments with different experimental tools Ms Myoung Joo Baek, Seoul National University, Korea |
| 6:00 PM | Oral Presentation 24 (OP24) - The Status and Issues of Chemistry as a Science Inquiry Subject in the Korean College Scholastic Ability Test Prof Hyunjung Kim, Chemistry Education Kongju National University, Korea |
| 6:20 PM | Oral Presentation 25 (OP25) - Humanising teaching of Chemistry through Interdisciplinary STEAM Approach Dr Ng Soo Boon, SEGi Univerity, Malaysia |
| 6:40 PM | Oral Presentation 26 (OP26) - Enhancing Science Learning Through Gesture-Based Teaching Dr Suziyana Hassim, SMK Tengku Menteri, Malaysia |
| 7:00 PM | End of Session |

| 10th NICE CONFERENCE 2025 PROGRAM - DAY1 Saturday, 26 July 2025 **Venue: ZAO, Level 5, Yamagata Kokusai Hotel | |
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| 9:00 AM | Pasting Posters |
| 11:00 AM | View Posters |
| 1:00 PM | Poster Session 1 (odd number) |
| 1:45 PM | Poster Session 2 (even number) |
| 2:30 PM | View Posters |

| 10th NICE CONFERENCE 2025 PROGRAM - DAY2 Sunday, 27 July 2025 **Venue: HEISEI / EAST, Level 2, Yamagata Kokusai Hotel | |
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| KEYNOTE3 | Chairperson : Prof Nobuyoshi Koga Hiroshima University, Japan |
| 9:00 AM | Keynote Lecture 3 (PL3) – Emotions and Identity Experienced by Pre-service Chemistry Teachers During the Process of Enhancing Inquiry-Based Teaching Professionalism Prof Hyunjung Kim, Chemistry Education Kongju National University, Korea |
| WORK SHOP1 | Chairperson : Emeritus Prof kazuko Ogino Tohoku University, Japan |
| 9:30 AM | Work shop 1 (WS1) Development and Applications of a Micro-Distillation Apparatus in Teaching Mr Hsu-Mao Liao, The Chemical Educational Resource Center of Taiwan, Taiwan |
| 10:30 AM | Break |
| Oral Session12-13 | Chairperson : Asst Prof Yvonne Shuen Lann Choo Xiamen University Malaysia, Malaysia |
| 10:40 AM | Oral Presentation 12 (OP12) - From Phenomenon to Analogy: Tracing Students' Particle Model of Matter through a Structured Curriculum on the Three States of Water Ms Chen-Yu Chen, National Taipei University of Education, Taiwan |
| 11:00 AM | Oral Presentation 13 (OP13) - Experimental Learning Program for Pre-service Teacher Education: Relationship between Learners' Understanding and Mathematics in a Conceptual Understanding of Reaction Rate Mr Takashi Hosoe, Musashino Elementary School, Japan |
| Oral Session14-15 | Chairperson : Prof Tetsuo Nakagawa Kobe College, Japan |
| 11:20 AM | Oral Presentation 14 (OP14) – A Study on University Students' Attitude Change Toward Electric Vehicle Socio-scientific Issues Through Facial Micro-expression Analysis Prof Chin-Cheng Chou, National Taipei University of Education, Taiwan |
| 11:40 AM | Oral Presentation 15 (OP15) - Acquiring the chemical concept of “elements” that constitute matter - Lesson planning and implementation in the first year of high school – Mr Fumio Orishimo, Takenodai High School, Japan |
| 12:00PM | Lunch Venue: Restaurant GLORIUS, Level 1, Yamagata Kokusai Hotel |
| 6:00PM | Banquet (Networking Dinner) Venue: FUJI, Level 3, Yamagata Kokusai Hotel |

| PROGRAM - DAY2 Sunday, 27 July 2025 **Venue: ZAO, Level 5, Yamagata Kokusai Hotel | |
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| 9:00 AM | View Posters |
| 5:00 PM | Poster Removal |

| PROGRAM - DAY2 Sunday, 27 July 2025 **Venue: CHOKAI, Level 5, Yamagata Kokusai Hotel | |
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| 9:00 AM | Work shop for High School Students Who's going to build a fast-moving robot? Let's build a robot and program it to move! Lecture Akane Iida-Adachi, Yamagata University Center for STEAM Education, Japan |
| 12:00 PM | End of Session |

| PROGRAM - DAY2 Sunday, 27 July 2025 | |
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| 1:00 PM | Excursion Visit to Jion-ji Temple and Safflower Dyeing Experience <ul style="list-style-type: none"> • Meeting Time: 12:50 PM • Meeting Place: Lobby, Yamagata Kokusai Hotel Bus 1 <ul style="list-style-type: none"> • 1:00 PM–1:40 PM Bus ride • 1:40 PM–3:20 PM Visit to Jion-ji Temple: Tour of Jion-ji Terrace followed by a temple visit • 3:20 PM–3:30 PM Bus ride • 3:30 PM–5:00 PM Visit to Safflower Museum: Safflower dyeing workshop • 5:00 PM–5:40 PM Return to Yamagata Kokusai Hotel Bus 2 <ul style="list-style-type: none"> • 1:00 PM–1:40 PM Bus ride • 1:40 PM–3:10 PM Visit to Safflower Museum: Safflower dyeing workshop • 3:10 PM–3:20 PM Bus ride • 3:20 PM–5:00 PM Visit to Jion-ji Temple: Tour of Jion-ji Terrace followed by a temple visit • 5:00 PM–5:40 PM Return to Yamagata Kokusai Hotel Bus 3 <ul style="list-style-type: none"> *Activities and tours will be conducted in two groups. • 1:00 PM–1:40 PM Bus transfer • 1:40 PM–4:30 PM Visit to the Former Kashiwakura Residence in Nakayama Town (safflower dyeing experience and tour) • 4:30 PM–5:15 PM Arrival at Yamagata Kokusai Hotel |

| 10th NICE CONFERENCE 2025 PROGRAM - DAY3 Monday, 28 July 2025 **Venue: HEISEI / EAST, Level 2, Yamagata Kokusai Hotel | |
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| Oral Session16-18 | Chairperson : Prof Daisuke Kajiya Liberal Arts Education Center, Ashikaga University, Japan |
| 9:00 AM | Oral Presentation 16 (OP16) – Traveling with Science: A Localized Model of Inquiry-Based Learning and Public Engagement in Taiwan Dr Chun-sung Kuo, Chiayi County Yung-Ching Senior High School, Taiwan |
| 9:20 AM | Oral Presentation 17 (OP17) - The sustainability curriculum at Nanhu Senior High School Dr For-Tsi Jyi, Taipei Municipal Nanhu Senior High School, Taiwan |
| 9:40 AM | Oral Presentation 18 (OP18) - Exploring the Effects of Three Generative AI Epistemic Scaffoldings on Elementary Students' Stance Change and Scientific Epistemological Beliefs in Socioscientific Issues Ms Bi-Chun Lai, Wen Huah Elementary School, Taiwan |

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| 10:00 AM | Oral Presentation 19 (OP19) - Enhancing Traditional Forensic Blood Detection for Inquiry-Based Learning: A Case Study in Project-Based Science Education Ms Chen Pei-Cheng, National Kinmen Senior High School, Taiwan |
| Oral Session19-21 | Chairperson : Prof Jim Jr-Min Lin Institute of Atomic and Molecular Sciences, Academia Sinica, Taiwan |
| 10:20 AM | Oral Presentation 20 (OP20) – Preparation and Characterization of Japanese Ink-Inspired Xerogels and Aqueous Dispersions of Carbon Materials with the Help of Glue as Colloid Chemistry Teaching Aid Mr Junpei Hayakawa, Nara Prefectural Seiwa Seiryō High School, Japan |
| 10:40 AM | Oral Presentation 21 (OP21) - Exploring the Feasibility of AI-Based Analysis of Elementary Chemistry Science Fair Reports in Taiwan Mr Chao-Min Hu, National Taipei University of Education, Taiwan |
| 11:00 AM | Break |
| KEYNOTE4 | Chairperson : Associate Prof Shingo Uchinokura Kagoshima University, Japan |
| 11:10 AM | Keynote Lecture 4 (PL4) –Communicating Chemistry through Light and Color: Engaging Experiments for Inquiry-Based Learning Asst Prof Takahiro Suzuki, Tokyo University of Science, Japan |
| 11:40 AM | Closing Ceremony |

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| 10th NICE CONFERENCE 2025 PROGRAM - DAY3 Monday, 28 July 2025 | |
| 1:00 PM | School Visit Tour (Yamagata Prefectural Yamagata Nishi High School) |

| LIST OF POSTERS Venue: ZAO, Level 5, Yamagata Kokusai Hotel | |
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| Poster 1 (P1) | A 3D-printed Device for Studying Kinetics of Chemical Reactions Prof Jim Jr-Min Lin, Institute of Atomic and Molecular Sciences, Academia Sinica, Taiwan |
| Poster 2 (P2) | Designing and Developing Science Board Games: Engaging Senior High School Students as Designers to Foster Design Thinking Skills Dr Jing Ping Jong, New Taipei Municipal Jinhe High School, Taiwan |
| Poster 3 (P3) | Translanguaging as a Scaffold in Bilingual Science Classrooms: Supporting Students' Construction of the Particle Model of Matter and Language Learning Ms Jing-Yi Liu, National Taipei University of Education, Taiwan |
| Poster 4 (P4) | Invisible Ink, Visible Risk: A STEM Exploration of Packaging Ink Transfer onto Food Ms Kaifang Peng, National Pingtung University of Science and Technology, Taiwan |
| Poster 5 (P5) | High School Inquiry on Dye-Sensitized Solar Cells for Sustainable Energy Education Ms YuJen Lin, National Dong Hwa University, Taiwan |
| Poster 6 (P6) | Integrating Interdisciplinary Experiments Using Small-Scale Instruments into Undergraduate Instrumental Analysis Laboratory Courses Ms Pei-shan Liao, National Chiayi University, Taiwan |

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| Poster 7 (P7) Virtual Laboratory for Large-scale General Chemistry Course: Opportunities to Experience Chemical Experiments Prof Tomoya Takada, Chitose Institute of Science and Technology, Japan |
| Poster 8 (P8) Chemistry Monozukuri for elementary school -etching original brass tags made easy- Ms Miki KUBOTA, Takehaya Elementary School attached to Tokyo Gakugei University, Japan |
| Poster 9 (P9) Capturing Light: Integrating Cyanotype and Silver Salt Printing into STEAM Education Ms Yaping Tsao, Taipei Municipal Zhongshan Girls High School, Taiwan |
| Poster 10 (P10) An Exploratory Study on How Generative AI Supports Students' Visual Construction of the Particle Model of Matter Ms Jing-Yi Liu, National Taipei University of Education, Taiwan |
| Poster 11 (P11) Learning Thermochemistry through Reusable Heat Packs: An Inquiry-based Learning Program Focusing on Phase Change Phenomena Mr Shunsuke Fukunaga, Hiroshima University, Japan |
| Poster 12 (P12) New Development in Microscale Experiments: Development of a Mass-Based Microscale Titration – Practical Applications in Acid-Base and Precipitation Titrations– Mr Kazuyuki Yamada, Kirigaoka School for the Physically Challenged, University of Tsukuba, Japan |
| Poster 13 (P13) Visualization and Mathematical Exploration of the van der Waals Equation Using Excel Mr Tetsumaru Uzawa, Gakushuin High School, Japan |
| Poster 14 (P14) Beyond the Conventional Gas Evolution Learning in School Science.(Easy-to-observe materials demonstrating gas evolution through freezing process) Visiting Prof Masahiro Kamata, International Christian University, Japan |
| Poster 15 (P15) Laboratory inquiry into the curing reaction of inorganic materials Ms Manami Shindo, Hiroshima University, Japan |
| Poster 16 (P16) A Few Items to be Reviewed in International Chemistry Norms in Relation to Secondary Education Emeritus Prof Masato M. Ito, Soka University, Japan |
| Poster 17 (P17) Mechanism of Reducibility exhibited by Monosaccharides under basic conditions Mr Fujita Ryoma, Tokyo University of Science, Japan |
| Poster 18 (P18) Drawing with Light in Liquid: A Reversible Redox Reaction for Science Communication Asst Prof Takahiro Suzuki, Tokyo University of Science, Japan |
| Poster 19 (P19) Luminol Reaction without utilizing hydrogen peroxide: repeated chemiluminescence by shaking Ms Kanon Ie, Tokyo University of Science, Japan |
| Poster 20 (P20) Silver Mirror can not be produced with Formic Acid Mr Toshihiro Ijichi, Tokyo University of Science, Japan |
| Poster 21 (P21) Development and practice of experimental materials aimed at realizing unit quantity and usefulness in the study of "Amount of substance" Mr Fumiya Nakamura, Tokyo Metropolitan Minami Katsushika High School, Japan |

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| <p>Poster 22 (P22) Development of chemical experiment simulation applications using a VR headset Mr Shin-ya Takane, Osaka Sangyo University, Japan</p> |
| <p>Poster 23 (P23) Proposal for systematically learning about molecular shapes in high school Ms Yukie Yoshida, Tokyo Metropolitan Honjo High School, Japan</p> |
| <p>Poster 24 (P24) Inclusive Chemistry Learning: Developing Sulfur-Based Teaching Materials Incorporating Tactile and Color-Accessible Visual Elements Ms Haruka Nitanda, Tokyo Gakugei University, Japan</p> |
| <p>Poster 25 (P25) Development of STEAM teaching materials using rotaxane type molecular shuttles Mr Tomoya Katogi, Toho University, Japan</p> |
| <p>Poster 26 (P26) Chemistry CLIL Lessons in Mongolia Taught in English or Japanese: Incorporating Hypothesis-Experiment Class Prof Shuichi Takahara, Okayama University of Science, Japan</p> |
| <p>Poster 27 (P27) The Impact of Pre-service Chemistry Teachers' EdTech-based Instruction on High School Students' Emotions and Positive Experiences About Science Ms Haejung Ahn, Kongju National University, Korea</p> |
| <p>Poster 28 (P28) Investigation of Copper Ion Complexation with Different Ligands to Enhance Fehling's Reagent Performance and Antibacterial Activity Ms Wang Li-Ciao, National Hualien Girls' Senior High School, Taiwan</p> |
| <p>Poster 29 (P29) Integrating Gamification into Organic Chemistry Learning: Designing a Card Game for Junior High Students to Master Simple Organic Molecules Mr Yi Hsun Chung, Nanshan High School, Taiwan</p> |
| <p>Poster 30 (P30) Long-Term Water Quality Trends (1994–2024) in the Tamsui River Basin: Application of the Mann-Kendall Test and Sen's Slope Estimator Mr Chun Wei Chung, Nanshan High School, Taiwan</p> |
| <p>Poster 31 (P31) Capillary action of liquid fertilizer in microgravity Ms Risako Sanemasu, Tokyo Gakugei University Senior High School, Japan</p> |
| <p>Poster 32 (P32) Study of Firefly Habitat in Ome City I - Consideration from the Results of Water Quality Survey- Mr Ryosei Gomi, Tokyo Metropolitan Tama Senior High School, Japan</p> |
| <p>Poster 33 (P33) Hair-Based Removal of Microplastics from Water Ms Shu-Fei Liu, Taipei Municipal Zhonglun High School, Taiwan</p> |
| <p>Poster 34 (P34) Unlocking the Health Secrets of Tea Infusions: An Exploration of Free Radical Scavenging ability and Polyphenol Content by Means of DPPH and Folin–Ciocalteu Ms Chiachi Lin, National Chushan Senior School, Taiwan</p> |
| <p>Poster 35 (P35) Bilingual Analogical Modeling and Epistemic Engagement: Exploring Elementary Students' Reasoning in Learning the Particle Model of Matter Ms Chiu-Wen Wang, National Taipei University of Education, Taiwan</p> |

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| <p>Poster 36 (P36) Aiyu Jelly - An Exploration of the Gelation Phenomenon Mr Meng-shu Han, Chiayi County Yung Ching Senior High School, Taiwan</p> |
| <p>Poster 37 (P37) Anthotype Photography Ms Chia-hsuan Tsai, Chiayi County Yung Ching Senior High School, Taiwan</p> |
| <p>Poster 38 (P38) Promoting Chemistry Learning Through Games: The Design and Application of “ChemRace” Mr Ting-hui Lin, Chiayi County Yung Ching Senior High School, Taiwan</p> |
| <p>Poster 39 (P39) Game-Based Learning of Acid-Base Indicators and pH Values: Designing a Reasoning-Oriented Digital Teaching Aid Mr Bo-yu She, Chiayi County Yung Ching Senior High School, Taiwan</p> |
| <p>Poster 40 (P40) The Magic of Jelly Blossoms Mr Shao-chen Weng, Chiayi County Yung Ching Senior High School, Taiwan</p> |
| <p>Poster 41 (P41) Produce Mineral Origin Pigments from Local Agate Ms Yuka Nawa, Yamagata prefectural Touhgakkan high school, Japan</p> |
| <p>Poster 42 (P42) A Study on the pH of the Yodo River System: Centered on the RpH Ms Karin Kosugi, Osaka Prefectural Nagao High School, Japan</p> |
| <p>Poster 43 (P43) Investigation of Adsorbents for Measuring ^{222}Rn Concentration ~Development of a Geological Survey Method Without Drilling~ Ms Yumi Imai, Tokyo Gakugei University Senior High School, Japan</p> |
| <p>Poster 44 (P44) Verifying and Elucidating the Anti-itch Effect of <i>Potentilla hebiichigo</i> Ms Akane Ishibashi, Tokyo Gakugei University International Secondary School, Japan</p> |
| <p>Poster 45 (P45) Development of Sunscreen Using UV Absorbers Derived from onion skin Ms Yume Yashiro, Tokyo Gakugei University International Secondary school, Japan</p> |
| <p>Poster 46 (P46) Reduce bath cleaning! ~Antimicrobial effect of essential oils on <i>Rhodotorula</i> spp.~ Ms Megumi Usui, Hiroshima Prefectural Hiroshima High School, Japan</p> |
| <p>Poster 47 (P47) A Reaction That Stops—Leaving Behind a Scent A Mild and Selective Method for Oxidizing Amines Ms Rio Shinohara, Saitama Prefectural Sakado High School, Japan,</p> |

| <p>LIST OF WORK SHOP Venue: HEISEI / EAST, Level 2, Yamagata Kokusai Hotel</p> |
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| <p>Work shop 1(WS1) Development and Applications of a Micro-Distillation Apparatus in Teaching Mr Hsu-Mao Liao, The Chemical Educational Resource Center of Taiwan, Taiwan</p> |