

03/06/2025		
Room PR - Plenary		
08:50 – 09:50	PL1	Hiromi Yamashita - The University of Osaka (Japan) <i>Design of Metal-Organic Frameworks and Reaction Systems for Efficient Photocatalytic H₂O₂ Production</i> Graduate School of Engineering, The University of Osaka, Suita, Osaka 565-0871, Japan
10:00 – 10:20	OR28	Oleksandr Astakhov – Photovoltaics (IMD-3), Forschungszentrum Jülich GmbH, Jülich, Germany <i>Assessment of solar-to-chemical efficiency using only electrolyzer characteristics Shortcut bridging electrochemistry and photovoltaics</i> Oleksandr Astakhov*, ¹ , Thérèse Cibaka ¹ , Lars Wieprecht ¹ , Uwe Rau ^{1,2} , Tsvetelina Merdzhanova ¹ ¹ Photovoltaics (IMD-3), Forschungszentrum Jülich GmbH, 52425 Jülich, Germany. ² Faculty of Electrical Engineering and Information Technology, RWTH Aachen University, Mies-van-der-Rohe-Straße 15, 52074 Aachen, Germany.
10:20 – 10:40	OR29	Giuseppina Cerrato – Dipartimento di Chimica, Università degli Studi di Torino, Torino (Italy) <i>Crystalline face engineering in diverse Bismuth Oxyhalides for enhanced amoxicillin removal from water</i> Giuseppina Cerrato*, ^{1,2} , Alessia Giordana ^{1,2} , Vincenzo Fabbri ^{2,3} , Melissa Greta Galloni ^{2,3} , Ermelinda Falletta ^{2,3} , Claudia Letizia Bianchi ^{2,3} ¹ Dipartimento di Chimica, Università degli Studi di Torino, Via Pietro Giuria 7, 10125 Torino, Italy ² Dipartimento di Chimica, Università degli Studi di Milano, via C. Golgi 19, 20133, Milano, Italy ³ Consorzio Interuniversitario Nazionale per la Scienza e Tecnologia dei Materiali (INSTM), via Giusti 9, 50121 Florence, Italy
10:40 – 11:00	OR30	Petar Djinovic – National Institute of Chemistry, Ljubljana (Slovenia) <i>Modification of the methane dry reforming reaction mechanism during visible light illumination of the Ni/CeO₂-x catalyst</i> Kristijan Lorber ¹ , Janez Zavašnik ² , Jordi Sancho-Parramon ³ , Matej Bubaš ^{1,3} , Nataša Novak Tušar ^{1,4} And Petar Djinović ^{1,4*} ¹ National Institute of Chemistry, Hajdrihova 19, Ljubljana, Slovenia ² Institute Jožef Stefan, Jamova 39, Ljubljana, Slovenia ³ Ruder Bošković institute, Bijenička 54, Zagreb, Croatia ⁴ University of Nova Gorica, Vipavska 13, Nova Gorica, Slovenia
11:00 – 11:20	Coffee-Break	
11:20 – 11:40	OR31	Hyeonjeong Kim – Pohang University of Science and Technology, Division of Environmental Science and Engineering, Pohang (Republic of Korea) <i>Ti-Nb Oxide Nanotube Arrays with Cathodic Engineering for Photoelectrochemical Water Treatment and Molecular Hydrogen Production</i> Hyeonjeong Kim, Doyeon Kim, Eunju Hwang, Kangwoo Cho* Pohang University of Science and Technology, Division of Environmental Science and Engineering, 77 Chungamro, Namgu, Pohang, Republic of Korea
11:40 – 12:00	OR32	Makoto Ogawa – Kyoto University, Grad. Sch. of Eng., Kyoto (Japan) <i>Flux Synthesis of Layered Perovskite Oxyiodide Photocatalyst for Visible-Light-Driven Water Splitting</i> Makoto Ogawa ¹ , Hajime Suzuki ¹ , Kanta Ogawa ¹ , Hiroki Ubukata ¹ , Osamu Tomita ¹ , Akinobu Nakada ¹ , Shunsuke Nozawa ² , Akinori Saeki ³ , Hiroshi Kageyama ¹ , Ryu Abe*, ¹ ¹ Kyoto University, Grad. Sch. of Eng., Kyoto daigaku-katsura, Nishikyo-ku, Kyoto, Japan. ² Photon Factory (PF), Institute of Materials Structure Science (IMSS), High Energy Accelerator Research Organization (KEK), Tsukuba, Ibaraki 305-0801, Japan. ³ Department of Applied Chemistry, Graduate School of Engineering, Osaka University, 2-1 Yamadaoka, Suita, Osaka 565-0871, Japan.

12:00 – 12:20	OR33	Jiajia Zhang – Division of Chemistry and Biological Chemistry, School of Chemistry, Chemical Engineering and Biotechnology, Nanyang Technological University, Singapore (Singapore) <i>Squeezing Water Molecular Network with Kosmotropic Chemistry to Enhance Nitrogen-to-Ammonia Electrofixation</i> Jiajia Zhang¹, Zhi Zhong Ang¹, Hiang Kwee Lee^{*,1,2,3} 1 Division of Chemistry and Biological Chemistry, School of Chemistry, Chemical Engineering and Biotechnology, Nanyang Technological University, 21 Nanyang Link, Singapore 637371, Singapore. 2 Institute of Materials Research and Engineering, The Agency for Science, Technology and Research (A*STAR), 2 Fusionopolis Way, #08-03, Innovis, 138634, Singapore. 3 Centre for Hydrogen Innovations, National University of Singapore, E8, 1 Engineering drive 3, 117580, Singapore
		Short Orals
12:20 – 12:30	SO31	Alfredo Aloise – Department of Physical and Chemical Sciences, University of L'Aquila, L'Aquila (Italy) <i>Synthesis of Nano-Si1/TiO2NTs Composite photocatalyst</i> Rosalba Passalacqua^{*1}, Alfredo Aloise², Alessia Marino², Nicola Di Nicola², Siglinda Perathoner¹, Gabriele Centi¹ 1 University of Messina, Department of Chemical, Biological, Pharmaceutical and Environmental Sciences (ChiBioFarAm) & INSTM CASPE (Lab. of Catalysis for Sustainable Production & Energy), Viale F. Stagno d'Alcontres 31, 98166 Messina, Italy 2 Department of Physical and Chemical Sciences, University of L'Aquila, via Vetoio, Coppito 2 67100 L'Aquila, Italy
12:30 – 12:40	SO32	Giusy Dativo – University of Catania, Dep. of Chemical Sciences, Catania (Italy) <i>Modified Montmorillonite-based catalysts for the photothermo-catalytic reduction of CO₂ into solar fuels</i> Giusy Dativo^{*,1}, Salvatore Scirè¹, Giuseppe Compagnini¹, Roberto Fiorenza¹ 1 University of Catania, Dep. of Chemical Sciences, Viale Andrea Doria 6, Catania, Italy.
12:40 – 12:50	SO33	Giuseppe Santoriello – Dept. Chemistry and Biology, University of Salerno, Fisciano (SA), Italy. <i>Theoretical insights on innovative solutions for CO₂RR with Fe-based single atom catalysts</i> Giuseppe Santoriello¹, Ida Ritacco¹, Giulia Tuci², Giuliano Giambastiani³, Claudio Ampelli⁴, Siglinda Perathoner⁴, Gabriele Centi⁴, Matteo Farnesi Camellone⁵, Lucia Caporaso¹. 1 Dept. Chemistry and Biology, University of Salerno, via G. Paolo II 132, 84084, Fisciano (SA), Italy. 2 Institute of Chemistry of OrganoMetallic Compounds, ICCOM-CNR, Via Madonna del Piano, 10 - 50019, Sesto F.no, Florence, Italy. 3 Dept. of Chemistry "Ugo Schiff", Università di Firenze, via della Lastruccia 3-13, Sesto Fiorentino, Italy 4 Dept. ChiBioFarm, University of Messina, 98166 Messina, Italy 5 Consiglio Nazionale delle Ricerche-Istituto Officina dei Materiali (CNR-IOM), 34136 Trieste, Italy
12:50 – 13:00	SO34	Serena Esposito – Department of Applied Science and Technology and INSTM Unit of Torino – Politecnico, POLITO, Torino (Italy) <i>Enhancing visible-light photocatalytic hydrogen evolution with sub-5 nm Fe-doped CeO₂ nanocrystals in confined spaces</i> Giuseppina Iervolino¹, Olimpia Tammaro², Marco Fontana², Bruno Masenelli³, Anne D. Lamirand³, Vincenzo Vaiano¹, Serena Esposito^{2*} 1 Department of Industrial Engineering, University of Salerno, Via Giovanni Paolo II 132, 84084 Fisciano, SA, Italy. 2 Department of Applied Science and Technology and INSTM Unit of Torino – Politecnico, Politecnico di Torino, Corso Duca degli Abruzzi 24, 10129 Torino, Italy. 3 INSA Lyon, Ecole Centrale de Lyon, CNRS, Universite Claude Bernard Lyon

13:00 – 15:00	Lunch Break	
15:00 – 15:20	OR34	Federica Menegazzo – Ca' Foscari University of Venice, Department of Molecular Sciences and Nanosystems, Venice (Italy) <i>Photocatalysts and essential oils: could they ever be friends?</i> Andrea Campostrini^{1,2}, Teresa Botrè^{1,2}, Sabrina Manente¹, Pilar Bosch-Roig³, Elena Ghedini⁴, Michela Signoretto^{1,2}, Federica Menegazzo*,^{1,2} ¹Ca' Foscari University of Venice, Department of Molecular Sciences and Nanosystems, Via Torino 155, 30172 Venice, Italy. ²INSTM RUVe, Via Torino 155, 30172 Venice, Italy. ³Universitat Politècnica de València, Instituto Universitario de Restauración del Patrimonio, Camí de Vera s/n, 46022 Valencia, Spain. ⁴University of Bari, Chemistry Department, Via Orabona 4, 70126 Bari, Italy.
15:20 – 15:40	OR35	Eleonora Tosi Brandi – University of Bologna, Industrial Chemistry Department, Bologna (Italy) <i>Novel application of CuMg-based Layered Double Hydroxides as photocathodes for photoelectrocatalytic CO₂ conversion</i> Eleonora Tosi Brandi*, Andrea Fasolini¹, Jacopo De Maron¹, Nicola Sangiorgi², Alex Sangiorgi², Alessandra Sanson², Francesco Basile¹ ¹University of Bologna, Industrial Chemistry Department, Viale del Risorgimento 4, 40136, Bologna, Italy. ²National Research Council of Italy, Institute of Science, Technology and Sustainability for Ceramics (CNR-ISSMC), Via Granarolo 64, 48018, Faenza, Italy.
15:40 – 16:00	OR36	Tsvetelina Merdzhanova – IMD3-Photovoltaics, Forschungszentrum Jülich GmbH, Jülich (Germany) <i>Solar-driven CO₂ electroreduction with direct-coupled PV-EC in realistic operating cycles</i> Tsvetelina Merdzhanova*, Thérèse Cibaka¹, Oleksandr Astakhov¹ ¹IMD3-Photovoltaics, Forschungszentrum Jülich GmbH, 52425 Jülich, Germany
16:00 – 16:40	KN10	Tapio Salmi – Åbo Akademi, Laboratory of Industrial Chemistry and Reaction Engineering (TKR), Turku/Åbo (Finland) <i>Catalytic ozonation of pharmaceuticals – From experiments to modelling</i> Soudabeh Saied^{1,2}, Pasi Tolvanen¹, Vincenzo Russo^{1,3}, Pasi Tolvanen¹, Tapio Salmi*,^{1,3} ¹Åbo Akademi, Laboratory of Industrial Chemistry and Reaction Engineering (TKR), FI-20500 Turku/Åbo, Finland ²Linde + Robinson Laboratories, California Institute of Technology, Pasadena 91125, United States ³Università di Napoli 'Federico II', Chemical Sciences, IT-80125 Napoli, Italy
16:40 – 17:00	Coffee-Break	
17:00 – 17:10	SO35	Elisabetta Fanizza – University of Bari A. Moro, Department of Chemistry, Bari (Italy) <i>Photocatalytically-regenerable hyper-crosslinked microporous adsorbent</i> Pierluigi Lasala,¹ Khalid Tahla,¹ Antonio Maglione,² Antonia Cerbone,^{2,3} Serena Catullo,¹ Gaia Raffaele,¹ Ombretta Giancaspro,¹ Antonella Milella,¹ Ilaria De Pasquale,⁴ Rachele Castaldo,² Gennaro Gentile,² Maria Lucia Curri,^{1,4,5} Elisabetta Fanizza*,^{1,4,5} ¹University of Bari A. Moro, Department of Chemistry, Via Orabona 4, 70126 Bari, Italy ²CNR- Institute of Polymers, Composites and Biomaterials (IPCB), Via Campi Flegrei 34, 80078 Pozzuoli (NA), Italy ³University of Naples, Department of Chemical Science, Strada Comunale Cinthia, 26, 80126, Naples, Italy ⁴CNR-Institute for chemical and physical processes (IPCF), Via Orabona 4, 70126 Bari, Italy ⁵National Interuniversity Consortium of Materials Science and Technology, INSTM, Bari Research Unit, 70126, Bari, Italy
17:10 – 17:20	SO36	Dimitrios Giannakoudakis – Aristotle University of Thessaloniki, Department of Chemistry, Thessaloniki (Greece) <i>Additive-free photochemical upcycling of bio-based (micro)plastics into value added chemicals</i>

		Athanasia Kotsaridou ^{1*} , Dimitrios A. Giannakoudakis ¹ , Konstantinos Triantafyllidis ¹ ¹ Aristotle University of Thessaloniki, Department of Chemistry, Thessaloniki, Greece
17:20 – 17:30	SO37	Marianna Guagliano – Dipartimento di Chimica, Materiali e Ingegneria Chimica “Giulio Natta”- CMIC, POLIMI, Milano (Italy) <i>An iron-based biochar-supported catalyst for diclofenac degradation</i> Marianna Gualiano ¹ , Christian de los Ríos ² , Karla Jiménez-Bautista ² , Virginia Muelas-Ramos ² , Ana Bahamonde ³ , Cinzia Cristiani ¹ , Simone Pedrazzi ⁴ , Marco Puglia ⁴ , Daphne Hermosilla ² , Antonio Gascó ² ¹ Dipartimento di Chimica, Materiali e Ingegneria Chimica “Giulio Natta”- CMIC, Politecnico di Milano, Piazza Leonardo Da Vinci 32, 20133, Milano, Italy ² G-Aqua Research Group, Universidad Politécnica de Madrid, Escuela Técnica Superior de Ingeniería de Montes, Forestal y del Medio Natural, Calle José Antonio Novais 10, 28040 Madrid, Spain ³ Instituto de Catálisis y Petroleoquímica, Consejo Superior de Investigaciones Científicas, Calle de Marie Curie 2, 28049 Madrid, Spain ⁴ Department of Engineering "Enzo Ferrari", Università degli Studi di Modena e Reggio Emilia UNIMO, Via Università 4, 41121 Modena
17:30 – 17:40	SO38	Chiara Ingrosso – ICNR-IPCF Sez. Bari, c/o Dept. of Chemistry, Università degli Studi di Bari, Bari (Italy) <i>Photocatalytic nanocomposites based on pyrene functionalized reduced graphene oxide in situ decorated with TiO₂ nanorods</i> C. Ingrosso, ¹ A. Disha, ² M. Dell’Edera, ¹ I. De Pasquale, ¹ G. V. Bianco, ³ A. Milella, ² A. Grandolfo, ^{1,4,5} E. Mesto, ⁵ E. Schingaro, ⁵ M. Striccoli, ¹ E. Fanizza, ^{1,2} R. Comparelli, ¹ M. L. Curri, ^{1,2} ¹ ICNR-IPCF Sez. Bari, c/o Dept. of Chemistry, Università degli Studi di Bari, via Orabona 4, 70126 Bari, Italy ² Dept. of Chemistry, Università degli Studi di Bari, via Orabona 4, 70126 Bari, Italy ³ ICNR-NANOTEC, c/o Università degli Studi di Bari, Via Orabona 4, 70126 Bari, Italy ⁴ Dept. of Electrical and Information Engineering, Polytechnic of Bari, Via Amendola 126/b, 70126 Bari, Italy ⁵ Dept. of Earth and Geoenvironmental Sciences, Università degli Studi di Bari, via Orabona 4, 70126 Bari, Italy
17:40 – 17:50	SO39	Luca Maistrello – Department. Of Chemistry, University of Studies of Milan, Milan(Italy) <i>Innovative Photoelectrocatalytic filter for Recirculating Aquaculture Systems</i> Luca Maistrello, ¹ Simone Livolsi ¹ Eleonora Buoio, ² Daniela Bertotto ³ , Giuseppe Radaelli ³ , Alessia di Giancamillo, ² Annamaria Costa, ² Gian Luca Chiarello*, ¹ ¹ Department. Of Chemistry, University of Studies of Milan, Via Golgi 19 20133, Milan (Italy) ² Department of Veterinary Medicine and Animal Sciences, University of Milan, 26900 Lodi, Italy
17:50 – 18:00	SO40	Matteo Miceli – University of Messina (UNIME), CASPE/INSTM and ERIC aisbl, (ChiBioFarAm), Messina (Italy) <i>Sustainable ammonia synthesis using graphene/MnFe₂O₄-based gas-diffusion electrodes via photo-, electro-, and photo-electro-catalytic routes</i> Clécia Andrade Dos Santos ^{1,2} , Matteo Miceli*, ³ , Luciane Pimenta Cruz Romão ² , Maria Valnice Boldrin Zanoni ² , Siglinda Perathoner ³ , Gabrieli Centi ³ , Claudio Ampelli ³ ¹ São Paulo State University (UNESP), Institute of Chemistry, Araraquara, Brazil. ² National Institute of Alternative Technologies for Detection, Toxicological Evaluation and Removal of Micropollutants and Radioactive Substances (INCT-DATREM), São Paulo State University (UNESP), Institute of Chemistry, Araraquara, Brazil. ³ University of Messina (UNIME), CASPE/INSTM and ERIC aisbl, Department of Chemical, Biological, Pharmaceutical and Environmental Sciences (ChiBioFarAm), Messina, Italy.
18:00 – 19:00	CH P2	Poster session (Hallway) P2

03/06/2025		
Room Massimo (RM)		
10:00 – 10:20	OR37	Luke Harvey – The University of Newcastle, Chemical Engineering, University Drive, Callaghan, Australia <i>Enhanced Bio-Oil Upgrading: Mesoporous and Zeolitic Catalysts for Polyaromatic Hydrocarbon Conversion</i> Luke Harvey, Thoams Doyle, Rahim Kamari, Eric Kennedy, Michael Stockenhuber The University of Newcastle, Chemical Engineering, University Drive, Callaghan, Australia
10:20 – 10:40	OR38	Lingxi Zhou – State Key Laboratory of New Ceramics and Fine Processing, School of Materials Science and Engineering, Tsinghua University, Beijing (China) <i>Intrinsic metal-support interactions break the activity-stability dilemma in electrocatalysis</i> Lingxi Zhou¹, Menghao Yang², Yihong Liu², Feiyu Kang^{3,4} and Ruitao Lv^{*1,4} ¹ State Key Laboratory of New Ceramics and Fine Processing, School of Materials Science and Engineering, Tsinghua University, Beijing, China ² Shanghai Key Laboratory for R&D and Application of Metallic Functional Materials, School of Materials Science and Engineering, Tongji University, Shanghai, China ³ Institute of Materials Research and Shenzhen Geim Graphene Center, Tsinghua Shenzhen International Graduate School, Tsinghua University, Shenzhen, China ⁴ Key Laboratory of Advanced Materials (MOE), School of Materials Science and Engineering, Tsinghua University, Beijing, China
10:40 – 11:00	OR39	Maria Elena Azzoni – Laboratory of Catalysis and Catalytic Processes, Dipartimento di Energia, POLIMI, Milano (Italy) <i>N₂O decomposition on Fe/CHA catalyst using transient response methods</i> Maria Elena Azzoni¹, Nicola Usberti¹, Andrea Gjetja¹, Isabella Nova¹, Enrico Tronconi^{1*}, Roberta Villamaina², Maria Pia Ruggeri², Veselina Georgieva², Loredana Mantarosie², Jill Collier² ¹Laboratory of Catalysis and Catalytic Processes, Dipartimento di Energia, Politecnico di Milano, Via La Masa, 34, 20156 Milan, Italy ²Johnson Matthey Technology Centre, Blounts Court Road, Sonning Common, Reading RG4 9NH, UK
11:00 – 11:20	Coffee-Break	
11:20 – 11:40	OR40	Li-Yi Chen – New Materials Research & Development Department, China Steel Corporation, Kaohsiung City (Taiwan) <i>Pilot-Scale Evaluation of a Multi-Promoters Modified V/Ti-Based SCR Catalyst for Medium-Low Temperature DeNO_x in Coking Plant Flue Gas</i> Li-Yi Chen[*], Chi-Lang Chen, Wen-Chang Chen ¹New Materials Research & Development Department, China Steel Corporation, No. 1, Zhonggang Rd., Xiaogang Dist., Kaohsiung City, Taiwan
11:40 – 12:00	OR41	Alice Gramegna – Chemical Plants and Industrial Chemistry Group, Dip. Chimica, Università degli Studi di Milano, Milan (Italy) <i>New Technologies for Sustainable Valorisation of CH₄ and CO₂ from Livestock and Biogas</i> Ilenia Rossetti^{1,2,*}, Alice Gramegna^{1,2}, Matteo Tommasi¹, Simge Naz Degerli², Gianguido Ramis³ ¹ Chemical Plants and Industrial Chemistry Group, Dip. Chimica, Università degli Studi di Milano, Via C. Golgi 19, 20133 Milan, Italy ² INSTM Unit Milano-Università, Via C. Golgi 19, 20133 Milan, Italy ³ DICCA, Università degli Studi Genova, via all'Opera Pia 15A, 16145 Genoa, Italy
12:00 – 12:20	OR42	Tetyana Zheleznyak – University of Chemistry and Technology, Dept. of Chemical Engineering, Technická 5, Prague (Czech Republic) <i>Modeling of Cu/SSZ-13 SCR catalyst sulfation depending on HTA-induced changes in ZCuOH and Z₂Cu site distribution</i> Tetyana Zheleznyak¹, Petr Kočí^{*,1}, William S. Epling²

		1 University of Chemistry and Technology, Dept. of Chemical Engineering, Technická 5, Prague, Czech Republic. 2 University of Virginia, Dept. of Chemical Engineering, 385 McCormick Rd, Charlottesville, USA.
		Short Orals
12:20 – 12:30	SO41	Marco Francesco Torre – ChiBioFarAm – University of Messina, ERIC aisbl and CASPE/INSTM, Messina (Italy) <i>Plasma-assisted electrochemical conversion of nitrogen to ammonia under ambient conditions</i> Marco Francesco Torre*,1, Lavanya Veerapuram1, Francesco Tavella1, Siglinda Perathoner1, Gabriele Centi1, Chiara Genovese1, Claudio Ampelli1 1 Department of Chemical, Biological, Pharmaceutical and Environmental Sciences (ChiBioFarAm) – University of Messina, ERIC aisbl and CASPE/INSTM, V.le F. Stagno d'Alcontres, 31 – 98166 Messina, Italy
12:30 – 12:40	SO42	Xuerui Zheng – Department of Interdisciplinary Engineering Sciences, Interdisciplinary Graduate School of Engineering Sciences, Kyushu University, Kasuga, Fukuoka (Japan) <i>Application of Manganese oxides support on Zeolite Y Catalysts in Benzene Total Oxidation</i> Xuerui ZHENG1, Hisahiro EINAGA*,2 1 Department of Interdisciplinary Engineering Sciences, Interdisciplinary Graduate School of Engineering Sciences, Kyushu University, Kasuga, Fukuoka, Japan. 2 Department of Material Sciences, Faculty of Engineering Sciences, Kyushu University, Kasuga, Fukuoka, Japan.
12:40 – 12:50	SO43	Magdalena Żurowska – Faculty of Chemistry, Jagiellonian University, Kraków (Poland) <i>Uniform SiO₂@CeO₂ core-shell structures doped with CuO and Co₃O₄ as efficient catalysts for toluene combustion</i> Magdalena Żurowska*,1,2, Anna Rokicińska1, Dominika Aśniowska1, Marek Dębosz1, Piotr Kuśtrowski1 1 Faculty of Chemistry, Jagiellonian University, Gronostajowa 2, Kraków, Poland. 2 Doctoral School of Exact and Natural Sciences, Jagiellonian University, Łojasiewicza 11, Kraków, Poland.
12:50 – 13:00	SO44	Stephane Siffert – Unité de Chimie Environnementale et Interactions sur le Vivant (UCEIV UR 4492), Université du Littoral Côte d'Opale, Dunkerque (France) <i>Enhancing Catalytic Activity through Manganese Addition in Co or Cu Mixed Oxides for catalytic treatment of wood combustion emissions</i> C.E. Bounoukta1, C. Paris1, M. Tannous1, É. Genty1, F. Devred2, C. Poupin1, S. Siffert1, É. Gaigneaux2, R. Cousin1 1 Unité de Chimie Environnementale et Interactions sur le Vivant (UCEIV UR 4492), Université du Littoral Côte d'Opale, 145 avenue Maurice Schumann 59140 Dunkerque (France) 2 Institute of Condensed Matter and Nanosciences, Place Pasteur 1, L4.01.09, B-1348 Louvain-la-Neuve (Belgium)
13:00 – 15:00		Lunch Break
15:00 – 15:40	KN5	Marco Daturi – Université de Caen Normandie, ENSICAEN, CNRS, LCS, Laboratoire Catalyse et Spectrochimie, Caen (France) <i>Room temperature reduction of NO without reductants on iron Metal-Organic Frameworks</i> Marco Daturi*,1, Vanessa Blasin-Aubé1, Ji Wong Yoon1,2, Philippe Bazin1, Alexandre Vimont1, Jong-San Chang1,2, Stefan Wuttke1,4,5, Christian Serre5 1 Université de Caen Normandie, ENSICAEN, CNRS, LCS, Laboratoire Catalyse et Spectrochimie, 14000 Caen, France. 2 Catalysis Center for Molecular Engineering, Korea Research Institute of Chemical Technology (KRICT); Jang-dong 100, Yuseong, Daejeon, 305-600, South Korea. 3 Department of Chemistry, Sungkyunkwan University; Suwon, 440-476, South Korea 4 Ikerbasque, Basque Foundation for Science, Bilbao 48009, Spain & BCMaterials, UPV/EHU, Science Park, Leioa 48940, Spain

		5 Institute of Porous Materials from Paris, ENS, ESPCI Paris, CNRS, PSL University, Paris 75005, France
15:40 – 16:00	OR43	Angiolina Comotti – University of Milano-Bicocca, Dept. of Materials Science, Milan (Italy) <i>Porous Materials and CO₂ capture</i> Silvia Bracco¹, Jacopo Perego¹, Charl X. Bezuidenhout¹, Armando Rigamonti^{1,2}, Angiolina Comotti*,¹ ¹University of Milano-Bicocca, Dept. of Materials Science, Via R. Cozzi 55, Milan, Italy. ² University of Messina, Dept. of Chem., Biol., Pharm. and Environ. Sciences, Via F. Stagno d'Alcontres 31, Messina, Italy.
16:00 – 16:20	OR44	Takuma Higo – Waseda University, Department of Applied Chemistry, Shinjuku, Tokyo (Japan) <i>N₂O decomposition using an electric-field-assisted catalysis at low temperatures</i> Takuma Higo¹, Ayaka Shigemito¹, Yuki Inoda¹, Chihiro Ukai, Kenta Mitarai², Yasushi Sekine*,¹ ¹Waseda University, Department of Applied Chemistry, Shinjuku, Tokyo, Japan.
16:20 – 16:40	OR45	Marc Maurer – Karlsruhe Institute of Technology (KIT), Institute of Catalysis Research and Technology (IKFT), Karlsruhe (Germany) <i>Effect of promoters on the performance of Pt/TiO₂ catalyst for NO_x removal by selective catalytic reduction (SCR) with H₂</i> Marc Maurer¹, Maria Casapu², Jan-Dierk Grunwaldt^{1,2} ¹Karlsruhe Institute of Technology (KIT), Institute of Catalysis Research and Technology (IKFT), Hermann-von-Helmholtz-Platz 1, Karlsruhe, Germany. ² Karlsruhe Institute of Technology (KIT), Institute for Chemical Technology and Polymer Chemistry (ITCP), Engesserstraße 20, Karlsruhe, Germany.
16:40 – 17:00		Coffee-Break
		Short Orals
17:00 – 17:10	SO45	Thaieny Zucolotto – University of São Paulo, Department of Chemical Engineering, São Paulo (Brazil) <i>Comparative Study of SBA-15 and CNT Supports for Iron Catalysts in Fischer-Tropsch Synthesis</i> Thaieny Zucolotto*,¹, Martin Schmal¹, Anna Zimina², Jan-Dierk Grunwaldt², Reinaldo Giudici¹ ¹University of São Paulo, Department of Chemical Engineering, Av. Prof. Luciano Gualberto, travessa 3, n. 380, São Paulo, Brazil. ² Karlsruhe Institute of Technology, Department of Catalysis and Operando Spectroscopy, Hermann-von-Helmholtz-Platz - 76344, Karlsruhe, Germany.
17:10 – 17:20	SO46	withdrawn
17:20 – 17:30	SO47	Alessia Cometto – Politecnico di Torino, Department of Applied Science and Technology (DISAT), Turin (Italy) <i>Investigating Acidic Supports for Site-Selective Platinum Nanoparticles in VOC Oxidation</i> Alessia COMETTO*, Enrico Sartoretti¹, Nunzio Russo¹, Samir Bensaid¹. ¹Politecnico di Torino, Department of Applied Science and Technology (DISAT), Corso Duca degli Abruzzi 24, 10129 Turin, Italy.
17:30 – 17:40	SO48	Renaud Cousin – Unité de Chimie Environnementale et Interactions sur le Vivant (UCEiV), Université du Littoral Côte d'Opale (ULCO), Dunkerque (France) <i>Impact of Cu/Mn ratio for CuMnOx prepared by oxalate coprecipitation: the essential point for total oxidation of model pollutants issued from biomass combustion</i> Julien Machinski¹, Eric Genty¹, Charf Eddine Bounoukta¹, Christophe Poupin¹, Valeria La Parola², Stéphane Siffert¹, Elise Berrier³, Leonarda Francesca Liotta², Renaud Cousin¹* ¹ Unité de Chimie Environnementale et Interactions sur le Vivant (UCEiV), Université du Littoral Côte d'Opale (ULCO), Dunkerque, 59140, France

		2 Institute for the Study of Nanostructured Materials (ISMN)-CNR, Via Ugo La Malfa, 153, Palermo, 90146, Italy 3 Unité de Catalyse et Chimie du Solide (UCCS), UMR 8181, Université de Lille, CNRS, Centrale Lille, Université Artois, Lille, 59000, France
17:40 – 17:50	SO49	Federica De Luca – 1ERIC aisbl and CASPE/INSTM, Dpt. ChiBioFarAM University of Messina, Messina (Italy) <i>Citrus Waste to Carbon Catalysts: A Sustainable Approach to CO2 Reduction</i> Federica De Luca*, 1 Palmarita Demoro, 1 Imen Sghaier, 1 Izuchica Nduka, 2 Rosa Arrigo, 2 Siglinda Perathoner, 1 Gabriele Centi, 1 Salvatore Abate 1ERIC aisbl and CASPE/INSTM, Dpt. ChiBioFarAM University of Messina Viale F. Stagno D'Alcontres 31, Messina, 98166, Italy 2School of Science, Engineering and Environment University of Salford M5 4WT, Manchester, UK
17:50 – 18:00	SO50	Alessandro Allegri – Alma Mater Studiorum – University of Bologna, Department of Industrial Chemistry “Toso Montanari”, C3 – Center for Chemical Catalysis, CIRI-FRAME, Bologna (Italy) <i>Rational optimisation of biomass-derived γ-valerolactone cascade synthesis</i> Alessandro Allegri ¹ , Luca Ciacchi ¹ , Fabrizio Passarini ¹ , Andrea Brigliadori ² , Claudio Oldani ³ , Giuseppe Fornasari ¹ , Stefania Albonetti ^{1*} 1 Alma Mater Studiorum – University of Bologna, Department of Industrial Chemistry “Toso Montanari”, C3 – Center for Chemical Catalysis, CIRI-FRAME, Via P. Gobetti 85, Bologna, Italy. 2 CNR-ISSMC (Former ISTEC), National Research Council of Italy-Institute of Science, Technology and Sustainability for Ceramics, Faenza, Italy. 3 Syensqo, Bollate, Italy.
18:00 – 19:00	CH P2	Poster session (Hallway) P2

03/06/2025		
Room Isole (RI)		
10:00 – 10:20	OR46	Raffaele Cheula – 1Aarhus University, Center for Interstellar Catalysis, Aarhus (Denmark) <i>Design of catalysts for CO2 hydrogenation with fine-tuned machine learning potentials</i> Raffaele Cheula ¹ , Jonh Kitchin ² , And Mie Andersen ^{1*} 1Aarhus University, Center for Interstellar Catalysis, 8000 Aarhus, Denmark. 2 Carnegie Mellon University, Department of Chemical Engineering, 15213 Pittsburgh (PA), USA.
10:20 – 10:40	OR47	Giovanni Di Liberto – Università degli Studi di Milano Bicocca, Department of Materials Science, Milano (Italy) <i>Modeling Single-Atom Catalysis</i> Giovanni Di Liberto ¹ , Clara Saetta ¹ , Elisabetta Inico ¹ , Silvia Picello ¹ , Gianfranco Pacchioni ¹ 1Università degli Studi di Milano Bicocca, Department of Materials Science, Via Cozzi 55, Milano, Italy.
10:40 – 11:00	OR48	Shin Kihyun – Department of Materials Science and Engineering, Hanbat National University, Daejeon (Republic of Korea) <i>Beyond Linear Scaling: Innovations in Catalyst Optimization</i> Kihyun Shin ^{1*} , Hyun You Kim ² , Kyubock Lee ³ 1Department of Materials Science and Engineering, Hanbat National University, Daejeon 34158, Republic of Korea 2Department of Materials Science and Engineering, Chungnam National University, Daejeon 34134, Republic of Korea 3Graduate School of Energy Science and Technology, Chungnam National University, Daejeon 34134, Republic of Korea

11:00 – 11:20	Coffee-Break	
11:20 – 12:00	KN6	Yuefeng Liu – Dalian Institute of Chemical Physics, Chinese Academy of Sciences, Dalian (China) <i>Generation of oxide surface patches promoting H-spillover in Ru/(TiOx)MnO catalysts enables CO₂ reduction to CO</i> Hui Kang,¹ Shiyun Li,¹ Jun Ma,¹ Xuxu Zhai,¹ Siglinda Perathoner,² Gabriele Centi,² Yuefeng Liu *,¹ ¹ Dalian Institute of Chemical Physics, Chinese Academy of Sciences, Dalian 116023, China ² Department of ChiBioFarAm, University of Messina, Messina 98166, Italy
12:00 – 12:20	OR49	Elena Groppo – Department of Chemistry, INSTM and NIS Centre, University of Torino, Torino (Italy) <i>CO-induced dynamic behavior of supported PGM nanoparticles in mild conditions</i> Alberto Ricchebuono,¹ Elena Seminerio,¹ Paolo Lazzarini,¹ Eleonora Vottero,¹ Daniele Bonavia,^{1,2,3} Riccardo Pellegrini,⁴ Valentina Crocellà,¹ Natale Gabriele Porcaro,¹ Stefano Checchia,³ Davide Ferri,⁴ Andrea Piovano,⁵ Elena Groppo,¹ ¹ Department of Chemistry, INSTM and NIS Centre, University of Torino, via Quarello 15A, Torino, I-10135, Italy ² ESRF-The European Synchrotron, 71 avenue des Martyrs, Grenoble, 38000, France ³ Paul Scherrer Institut, Forschungsstrasse 111, 5232 Villigen PSI (Switzerland)⁵ ⁴ Chimet SpA - Catalyst Division, Viciomaggio (Arezzo), I-52041, Italy ⁵ Institut Laue-Langevin (ILL), 71 avenue des Martyrs, Grenoble, 38000, France
		Short Orals
12:20 – 12:30	SO51	Alessandra Beretta – Laboratory of Catalysis and Catalytic Processes, Dipartimento di Energia, POILIMI, Milano (Italy) <i>A multiscale study of CH₄ pyrolysis over Fe-Al₂O₃ catalyst: the challenge of C build-up for the kinetic and the reactor studies</i> Marco Orsenigo,¹ Davide Cafaro,¹ Veronica Piazza,¹ Chiara Negri,¹ Lidia Castoldi,¹ Gianpiero Groppi,¹ Matteo Maestri,¹ Alessandra Beretta*,¹ ¹Laboratory of Catalysis and Catalytic Processes, Dipartimento di Energia, Politecnico di Milano, Via La Masa, 34 – 20156 Milano, Italy.
12:30 – 12:40	SO52	Elisabetta Inico – Università degli Studi di Milano-Bicocca, Dipartimento di Scienza dei Materiali, Milano (Italy) <i>Combining ab-initio thermodynamics and kinetics toward the Oxygen Evolution and Reduction Mechanism on a Dual Atom Catalyst</i> Elisabetta Inico,¹ Giovanni Di Liberto,¹ Gianfranco Pacchioni,¹ ¹Università degli Studi di Milano-Bicocca, Dipartimento di Scienza dei Materiali, Via R. Cozzi 55, 20125 Milano, Italy
12:40 – 12:50	SO53	Luca Mastrianni – Università di Napoli ‘Federico II’, Chemical Sciences, Napoli (Italy) <i>DLP 3D printing of catalyst architectures: from material preparation to mathematical modeling of structure effects on catalyst performance</i> Luca Mastroianni*,^{1,2} Ananias Medina,² Anna De Domenico,^{1,2} Kari Eränen,² Martino Di Serio,¹ Dmitry Murzin,² Vincenzo Russo,^{1,2} Tapio Salmi,^{1,2} ¹Università di Napoli ‘Federico II’, Chemical Sciences, IT-80125 Napoli, Italy ²Åbo Akademi, Laboratory of Industrial Chemistry and Reaction Engineering (TKR), FI-20500 Turku/Åbo, Finland
14:50 – 13:00	SO54	Mauro Bacconi – POLIMI, Laboratory of Catalysis and Catalytic Processes, Department of Energy, Milano (Italy) <i>Hierarchical multiscale analysis of CO₂ electroreduction at high current densities: The onset of transport limitations</i> Kaustav Niyogi, Mauro Bracconi, Matteo Maestri*, Politecnico di Milano, Laboratory of Catalysis and Catalytic Processes, Department of Energy, Via La Masa 34, Milano 20156, Italy
13:00 – 14:55	Lunch Break	
14:55 – 15:00	INTRO	Premio “Pio Forzatti” Alessandra Beretta - Introduction

15:00 – 15:20	OR50	Daria Gashnikova – Karlsruhe Institute of Technology, Institute for Chemical Technology and Polymer Chemistry, Karlsruhe (Germany) <i>Confining Pd on CeO₂ nano-islands for more efficient oxidation catalysts</i> Daria Gashnikova¹, Florian Maurer¹, Maria Casapu¹, Jan-Dierk Grunwaldt^{1,2*} ¹ Karlsruhe Institute of Technology, Institute for Chemical Technology and Polymer Chemistry, Karlsruhe, Germany. ² Karlsruhe Institute of Technology, Institute of Catalysis Research and Technology, Karlsruhe, Germany.
15:20 – 15:40	OR51	Running Kang – State Key Laboratory of High-Temperature Gas Dynamics, Institute of Mechanics, Chinese Academy of Sciences, Beijing (China) <i>Investigation on structure-activity relationship and reaction pathways of CuO/CeO₂ catalysts for NH₃ self-sustained combustion</i> Running Kang¹, Mingxia Yang^{1,2}, Zirui Zhang¹, Chenhang Zhang^{1,3}, Xiaokun Yi¹, Feng Bin^{*1}, Xiaolin Wei¹ ¹State Key Laboratory of High-Temperature Gas Dynamics, Institute of Mechanics, Chinese Academy of Sciences, Beijing 100190, PR China. ² School of Chemistry and Chemical Engineering, Guangxi University, Nanning 530004, PR China. ³ Key Laboratory of Beijing on Regional Air Pollution Control, Faculty of Environment and Life, Beijing University of Technology, Beijing 100124, PR China
15:40 – 16:00	OR52	Patrick Lott –KIT, Institute for Chemical Technology and Polymer Chemistry, Karlsruhe (Germany) <i>Forced dynamic reactor operation for boosting the activity and selectivity of Pd-based ammonia oxidation catalysts</i> Camilo Cárdenas¹, Thomas Häber², Olaf Deutschmann^{1,2}, Patrick Lott^{*1} ¹Karlsruhe Institute of Technology (KIT), Institute for Chemical Technology and Polymer Chemistry, Engesserstr. 20, 76131, Karlsruhe, Germany. ²Karlsruhe Institute of Technology (KIT), Institute of Catalysis Research and Technology (IKFT), Hermann-von-Helmholtz-Platz 1, 76344, Eggenstein-Leopoldshafen, Germany.
16:00 – 16:20	OR53	Dieter Plessers – KU Leuven, Center for Sustainable Catalysis and Engineering, Leuven (Belgium) <i>Spectroscopic Investigation of the Role of Water in Copper Zeolite Methane Oxidation</i> Dieter plessers^{*,1}, alexander j. Heyer², jing ma¹, augustin braun², hannah m. Rhoda², max l. Bols¹, robert a. Schoonheydt¹, edward i. Solomon², bert f. Sels¹ ¹KU Leuven, Center for Sustainable Catalysis and Engineering, Celestijnenlaan 200F, Leuven, Belgium. ² Stanford University, Department of Chemistry, 337 Campus Drive, Stanford, U.S.A.
16:20 – 16:40	OR54	Yulong Shan – Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences, Beijing (China) <i>Aluminum-rich small-pore Cu-zeolites applied for NH₃-SCR of NO_x</i> Yulong Shan[*], Guangzhi He, Wenpo Shan, Yunbo Yu, Hong He ¹Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences, 18 Shuangqing Road, Haidian District, Beijing, 100085, China.
16:40 – 17:00	Coffee-Break	
		Short Orals
17:00 – 17:10	SO55	Christoph Hahn – Institute of Energy Process Engineering and Chemical Engineering, Chair of Reaction Engineering, TU Freiberg, Freiberg (Germany) <i>Modelling the combined HCHO/SCR reaction on V₂O₅/WO₃/TiO₂ catalyst in lean gas engine exhaust</i> Christoph HAHN¹, Sven KURETI^{1,*} Institute of Energy Process Engineering and Chemical Engineering, Chair of Reaction Engineering, TU Freiberg, Fuchsmuehlenweg 9D, 09599 Freiberg, Germany
17:10 – 17:20	SO56	Ilyas Yousuf Mir – Indian Institute of Technology Delhi, Department of Chemical Engineering, Hauz Khas, New Delhi (India)

		<i>Microkinetic modelling of a Pd-based three-way catalyst for stoichiometric natural gas vehicles</i> Ilyas Yousuf Mir¹, Divesh Bhatia*,¹ ¹Indian Institute of Technology Delhi, Department of Chemical Engineering, Hauz Khas, New Delhi 110016, India
17:20 – 17:30	SO57	Yuki Inoda – Department of Applied Chemistry, Waseda University, Shinjuku, Tokyo (Japan) <i>NOx storage and reduction system with an electric field at low temperature</i> Yuki Inoda¹, Ayaka Shigemoto¹, Chihiro Ukai¹, Takuma Higo¹, Kohei Oka², Yasushi Sekine*,¹ ¹ Department of Applied Chemistry, Waseda University, 3-4-1, Okubo, Shinjuku, Tokyo, 169-8555, Japan. ² Isuzu Central Research Center, Fujisawa, Kanagawa, Japan.
17:30 – 17:40	SO58	Enrico Sartoretti – POLITO, Dept. of Applied Science and Technology, Turin (Italy) <i>Pd-ceria catalysts for complete CH₄ oxidation: influence of Pr-doping on sulfur resistance</i> Enrico Sartoretti*,¹, Eleonora Cali¹, Chiara Novara¹, Nunzio Russo¹, Debora Fino¹, Samir Bensaid¹ ¹Politecnico di Torino, Dept. of Applied Science and Technology, C.so Duca degli Abruzzi 24, Turin, Italy.
17:40 – 17:50	SO59	Jieling Shao – Chemistry and Chemical Engineering, Competence Centre of Catalysis, Chalmers University of Technology, Gothenburg (Sweden) <i>Pd speciation and support effect for H₂ SCR</i> Jieling Shao¹, Zhipeng Wang,² Phuoc Hoang Ho¹, Yifei Ren², Derek Creaser¹, Feng Wang² and Louise Olsson¹ ¹Chemistry and Chemical Engineering, Competence Centre of Catalysis, Chalmers University of Technology, Gothenburg S041296, Sweden. ² Department of Chemical Engineering, University College London, London WC1E 7JE, United Kingdom
17:50 – 18:00	SO60	Shivangi Singh – Department of Physics and Competence Centre for Catalysis, Chalmers University of Technology, Göteborg (Sweden) <i>Water Inhibition of NH₃-SCR over Cu-CHA: Measurements and DFT-based kinetic modeling</i> Shivangi Singh,^{a,b} Yingxin Feng^a, Ton V. W. Janssens^b, and Henrik Grönbeck^a ^A Department of Physics and Competence Centre for Catalysis, Chalmers University of Technology, SE-412 96 Göteborg, Sweden ^B Umicore Denmark ApS, DK-2970 Hørsholm, Denmark
18:00 – 18:30	Special Guest Lecture	Room Isola - RI Michael Stockenhuber <i>The Nexus between Understanding Redox Catalysts and Process Development for Environmental Applications.</i> Michael Stockenhuber, Luke Harvey, Matthew Drewery, Eric Kennedy University of Newcastle and UTS University - Sidney, Australia
18:30 – 19:00	Exhibitors session	Room Isola - RI 18:30-18:45 Labtech: Innovation, Technology, your solution! (M. Musetti) 18.45-19:00 Verder Sci. (S. Tieuli)