IA2020_Oral Presentation Lists (as of 10.11.2020)

** The presentation code are subject to change*

Code	Session Title	Presentation Code	Full paper no.	Paper Title	Presenter
OS01	Health effect and epidemiology 1: Exposure and health effects in house	OS01-01	ABS-0125	Non-combustible air fresheners tested in an experimental house: exposure and health risk assessment	Guillaume Karr
		OS01-02	ABS-0301	Mold, dampness and health in unplanned urban houses in the hot and humid climate of Indonesia	Tetsu Kubota
		OS01-03	ABS-0610	Present States of Indoor Air Quality and Health in Newly Constructed High-Rise Apartments in Major Cities of Indonesia	Hanief Ariefman Sani
		OS01-04	ABS-0871	Classification and Characterization of Exposure Rating in Humidifier Disinfectants through Calculation of PHMG Reference Concentration	Eunchae Kim
		OS01-05	ABS-1210	The mediation effect of indoor air quality on health: A comparison of homeowners and renters	Seongsu Kim
		OS01-06	ABS-1251	The impact of cooking nanoparticles on the human brain activity during electric stove frying	Mehdi Amouei Torkmahalleh
OS02	Health effect and epidemiology 2: Indoor air quality and health effects in school	OS02-01	ABS-0033	Indoor Air Quality conditions within the baby bunk beds at Dutch daycare centers indicate the necessity for an improved ventilation design	Wim Zeiler
		OS02-02	ABS-0216	Occupants' exposure to nitrogen dioxide (NO2) in European school and kindergarten buildings– A review	Heidi Salonen
		OS02-03	ABS-0616	Children's Respiratory Health and Indoor Air Pollutants (IAP) in Selected Malaysian Primary Schools	Nur Faseeha Suhaimi
		OS02-04	ABS-0675	Effect of indoor environment quality on students' health in naturally ventilated college dormitory in winter: A case study in Jinan	Farun An
		OS02-05	ABS-0738	Nationwide Estimation of Measles Transmission Risk in US Schools and Effects Supplemental Infection Control Strategies	Parham Azimi
		OS02-06	ABS-1166	The influence mechanism of daylight on visual comfort under different behavior modes in university classrooms	Guanhua Qu
		OS02-07	ABS-1255	Risk Estimation of Heatstroke occurred in Schools During Club Activities	Go Iwashita
OS03	Health effect and epidemiology 3: Biological agents and health effects	OS03-01	ABS-0026	The Effect of Anti Pollutant Gel from Sansevieria trifasciata on Malondialdehyde Level and Histopathology of Rats' Liver and Lungs Induced by Cigaret	Irfan Kesumayadi
		OS03-02	ABS-0236	Bacterial diffusion characteristics during thoracotomy in a hospital operating room	Akane Odagiri
		OS03-03	ABS-0355	Surface Contamination Pattern Identification by Surrogate-tracer Bacteria and Microbiome Quantification	Peihua Wang
		OS03-04	ABS-0368	Microbiology of the Built Environment (MoBE) for architects, a review of applied spatial metrics for application in healthy building design	Jako Nice
		OS03-05	ABS-1093	Influence of indoor environment and occupant behavior on house dust mite concentration in different climate region, China	Jinlian Gong
OS04	Health effect and epidemiology 4: Chemical agents and health effects	OS04-01	ABS-0318	Disease burden of indoor volatile organic compounds (VOCs) in China	Ningrui Liu
		OS04-02	ABS-0565	The impact of outdoor formaldehyde on indoor environment of public buildings	Hemiao Zhang
		OS04-03	ABS-0579	Modeling DEHP and its metabolism in a body's organs and tissues through different intake pathway into human body	Ao Li
		OS04-04	ABS-0744	Exploring Exposure to Aldehydes in E-Cigarettes	Zahra Keshavarz
		OS04-05	ABS-1204	The association between short term exposure to indoor size-fractioned particulate matter and cardiopulmonary function in COPD patients	Wenlou Zhang
		OS04-06	ABS-1219	Cardiorespiratory responses to indoor ozone exposure and the underlying biological mechanisms	Shan Liu
OS05	Health effect and epidemiology 5: Indoor air quality and cognitive health	OS05-01	ABS-0047	Effects of the total floor area of an air-conditioned office building on building-related symptoms: characteristics of winter and summer	Kenichi Azuma
		OS05-02	ABS-0239	Effects by a Rest during Work in the Staff Stations on Subjective Fatigue, Mental Health and Productivity for Nurses	Yukina Iijima
		OS05-03	ABS-0617	Associations between Indoor Air Quality and Cognitive Health: A randomised masked trial in the tropics	Shmitha Arikrishnan
		OS05-04	ABS-0869	Synergistic Effects of Co-exposure to Low Concentration PM2.5 and Formaldehyde on Asthmatic Mice and the Possible Mechanism	Rui Li
		OS05-05	ABS-1016	Indoor air quality and adult asthma severity in Chicago, IL	Insung Kang
		OS05-06	ABS-1017	Demographics, housing characteristics, indoor environmental factors, and asthma severity among adults in Chicago, IL	Insung Kang
OS06	Concentration and exposure 1: Novel Approaches	OS06-01	ABS-0202	Exposure to Indoor CO2 and Impairment of Cognitive Function: A Critical Review	Bowen Du
		OS06-02	ABS-0223	Inhalation Exposure Risk Assessment of High Concentration and Short-Term Exposure: Numerical Prediction of Transient Emission Characteristics fror	Eisaku Sumiyoshi
		OS06-03	ABS-0240	Modeling the bioaccessibility of inhaled semivolatile organic compounds in the human respiratory tract	Wenjuan Wei
		OS06-04	ABS-0348	An active sampling method for measuring indoor gas-phase semi-volatile organic compounds (SVOCs) based on solid-phase microextraction (SPME)	Zhibin Cheng
		OS06-05	ABS-0422	Evaluation of indoor air quality in dwellings using miniature sensors	Benjamin Hanoune
		OS06-06	ABS-0446	Development and Application of an Indoor Carbon Dioxide Metric	Andrew Persily
		OS06-07	ABS-0530	Evaluation of air exchange rate by influence of human movement wake	Motoki KONDO
		OS06-08	ABS-0833	Do Humans Transport Indoor Contaminants Between Environments? Further Evidence from Mechanistic Modelling	Jacob Kvasnicka
OS07	Concentration and exposure 2: VOCs	OS07-01	ABS-0349	Study on the mechanism and characterization of the dynamic gas-particle partitioning of semi-volatile organic compounds (SVOCs) in indoor air	Siqi Xie
		OS07-02	ABS-0440	An Evaluation of Flame Retardant Exposure Routes from Upholstered Furniture	Aika Davis
		OS07-03	ABS-0456	Improving mechanistic models of dermal uptake of SVOCs from clothing	Glenn Morrison
		OS07-04	ABS-0622	A Rapid Method for Characterizing Emissions of SVOCs from Consumer Products and Its Application to Human Exposure Assessment	Yili Wu
		OS07-05	ABS-0638	Semivolatile organic compounds in French school samples	Wenjuan Wei
		OS07-06	ABS-0992	Assessment of indoor air quality in office buildings: new volatile organic compounds, semi-volatile organic compounds, metals, and oxidative potentia	Corinne Mandin
		OS07-07	ABS-1170	Surgical smoke harms air quality in operating rooms	Abigail Koss
		OS07-08	ABS-1172	Effects of co-exposure of formaldehyde and benzene on life time of Drosophila Melanogaster based on mortality	Xiaoying Li
		OS08-01	ABS-0104	Humidifiers and Humans: inhalation exposure to metals aerosolized from ultrasonic humidifiers within indoor air environments	Wenchuo Yao

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OS08	Concentration and exposure 3: Indoor Particle Sources	OS08-02	ABS-0330	Human exposure to PM2.5 in mainland China	Yumeng Liu
		OS08-03	ABS-0827	Particulate matter exposure of chefs in professional kitchens	Marije te Kulve
		OS08-04	ABS-1008	Non-targeted analyses of school indoor settled dust by gas chromatography coupled to mass spectrometry (GC/MS)	Gaelle Raffy
		OS08-05	ABS-1014	Longitudinal assessment of human personal cloud effect associated with carbon dioxide and particulate matter	Viviana Gonzalez
		OS08-06	ABS-1235	Characteristics of organic aerosols in indoor air in Hong Kong: Insights from the measurements of High-Resolution Time-of-Flight Aerosol Mass Spectr	Dawen YAO
		OS08-07	ABS-1262	Indoor particulate matter concentration and exposure in South African residential communities	Brigitte Language
OS09	Concentration and exposure 4: Influences from Outdoors	OS09-01	ABS-0060	Exposure to Air Pollutants in Urban Indoor Walkways	Linhao Li
		OS09-02	ABS-0284	Exposure to indoor and outdoor air toxics and associated human health risk in Edmonton, Canada	Md. Aynul Bari
		OS09-03	ABS-0584	Measuring air quality in daycare centers offering outdoor sleeping facilities in an urban environment	Preben Van Overmeiren
		OS09-04	ABS-0984	Contributions of outdoor and indoor sources to residential indoor UFP concentrations	Chen Chen
		OS09-05	ABS-1152	Integrated impact of solar radiation and turbulence on passive and reactive pollutant dispersion in 2D street canyon	Jiarui Liu
OS10	Concentration and exposure 5: Transportation, Public Spaces, and Other Environments	OS10-01	ABS-0078	Impacts of Electronic Cigarettes Usage on Indoor Air Quality of Vape Shop and Nearby Business	Liqiao Li
		OS10-02	ABS-0168	Accumulation of Per- and Polyfluoroalkyl Substances (PFAS) in Clothing in Indoor Environments	Clara Eichler
		OS10-03	ABS-0665	Indoor Air Quality Monitoring in Mobility Situations by car around Paris using low-cost technologies: methodology and evaluation of performances co	Brice Berthelot
		OS10-04	ABS-0819	Investigation of Indoor Air Quality in Bank Offices	Hamidi Saidin
		OS10-05	ABS-0822	Correlation between Nicotine Metabolites Levels in Urine and Blood for Korean Active Smokers	Shervin Hashemi
		OS10-06	ABS-1303	A case-control study on indoor air quality and respiratory allergy symptoms in school-age children	Subei Bu
OS11	Concentration and exposure 6: Airborne Infection and Transmission	OS11-01	ABS-0119	Effect of Nozzle-based Personalized Ventilation on Airborne Disease Transmission between Occupants	Wenbing Liu
		OS11-02	ABS-0271	Performance of Personalized Ventilation on Bioaerosol Deposition and Inhalation of Cough Droplets	Sau Chung Fu
		OS11-03	ABS-0394	Developing Demand Driven Ventilation Criteria for Airborne Infection Control in Congregate Spaces	Toby van Reenen
		OS11-04	ABS-0416	TOXICITY IMPLICATION OF METAL BOUND SIZE-RESOLVED PM: IMPORTANCE OF THE BUILT ENVIRONMENT	HIMANSHI ROHRA
		OS11-05	ABS-1174	Home quarantine: a numerical evaluation of aerosol-like virus spread in a single-family house	Marc Abadie
		OS11-06	ABS-1209	Chemical Exposure to Disinfection Byproducts interacting on Personal Face Masks	Daniel Blomdahl
		OS11-07	ABS-1250	Identifying effective ventilation strategies to reduce COVID-19 infection risk indoors thanks to a multiroute transmission multi zonal model	Alice Micolier
OS12	Concentration and exposure 7: Residential Environments	OS12-01	ABS-0260	Real-time characterization of VOC exposure in a few new residential apartments in Beijing	Yingjun Liu
		OS12-02	ABS-0286	Human Exposure to Semi-Volatile Organic Compounds (SVOCs) in Social Housing Apartments	YUCHAO WAN
		OS12-03	ABS-0296	Occurrences and characterization of organophosphate flame retardants in indoor air and dust: a multi-location households study	Wei-Hsiang Chang
		OS12-04	ABS-0694	Impact of Precautionary Measures on Indoor Radon Levels in Retrofit Homes	Paul Francisco
		OS12-05	ABS-0920	Household air pollution in Sub-Saharan Africa – assessment and characterization of exposure in Ethiopian homes	Christina Isaxon
		OS12-06	ABS-1227	Source apportionment of indoor exposures to >200 VOCs at two California residences	David Lunderberg
OS13	Thermal comfort, perceived air quality 1: Natural Ventilation and Air Movement	OS13-01	ABS-0030	Field Survey on the Effect of Air Movement on Thermal Comfort in Premises Served by DOAS at Warm Setpoints	Kuniaki Mihara
		OS13-02	ABS-0245	An experimental study of the effect of intermittent window opening on the thermal comfort of college student in winter	Yingying Zhao
		OS13-03	ABS-0467	Optimization of window systems to achieve thermal comfort in the hot and humid climate of Indonesia	Haruka Kitagawa
		OS13-04	ABS-0779	Effect of Forced Convection and Buoyancy Driven Flow on Residential Air Velocities	Sangeetha Kumar
OS14	Thermal comfort, perceived air quality 2: Case Studies	OS14-01	ABS-0074	Assessment of Ventilation and Thermal Comfort Parameters during Early Evening Secondary School Wrestling Matches in an Older School Gym	Derek Shendell
		OS14-02	ABS-0117	Field Surveys on the Daylighting and Thermal Environment of An Atrium with Aerogel Glazed Roof in Hot Summer and Cold Winter Zone	Dongmei Zheng
		OS14-03	ABS-0290	Field investigation on passengers' walking speed and thermal comfort in Chinese airport terminals in summer	Xinyu Jia
		OS14-04	ABS-0623	The indoor thermal environment of traditional stone-house dwellings of Buyi nationality in summer.	loujun hu
		OS14-05	ABS-0666	The Research on Present Situation and Optimization of Indoor Thermal Environment in Dai Bamboo Building	Xin Dong
		OS14-06	ABS-0867	Office thermal comfort state analysis based on physiological signal from wearable device	Yoonhee Lee
		OS14-07	ABS-0880	Physiological signals related to the thermal comfort of students in secondary school	Jeongseo Lee
OS15	Thermal comfort, perceived air quality 3: Physiological Responses	OS15-01	ABS-0051	Thermal discomfort evaluation under hot and humid environments	Hui Zhu
		OS15-02	ABS-0109	Physiological responses and CO2 emission of humans at thermally warm temperature and reduced air quality	Kazuki Kuga
		OS15-03	ABS-0181	Skin Temperature Sampling Period for Longitudinal Thermal Comfort Studies	Federico Tartarini
		OS15-04	ABS-0393	Potential channels for establishing the relation between EEG signals and thermal sensation in neutral to hot environment	Xiaoyue Lang
		OS15-05	ABS-0810	Experimental Study on the Relations between Heart Rate Variability and Thermal Comfort Levels in Different Life Scene	Rui Yan
		OS15-06	ABS-0965	Electroencephalogram (EEG) and thermal displeasure with temperature step change	Jieun Han
		OS15-07	ABS-1248	Comparison of the mean skin temperature calculation method for evaluating of the overall thermal sensation under the non-uniform thermal enviror	Yuemei Wang
		OS16-01	ABS-0062	Occupants' evaluation of multi-aspect indoor-environmental exposure: An experimental case study	Christiane Berger

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OS16	Thermal comfort, perceived air quality 4: Perceived IEQ	OS16-02	ABS-0068	Understanding multi-aspect indoor-environmental exposure situations: Past insights and future needs	Ardeshir Mahdavi
		OS16-03	ABS-0539	The Impact of a View from a Window on Thermal comfort, Emotion, Cognitive Performance	Won Hee Ko
		OS16-04	ABS-0561	Experimental Study on Individual Differences in Cognition, Preference and Environmental Adaptability Based on Constitution of TCM	Yubei Liu
		OS16-05	ABS-0595	Is there an optimal CO2 and temperature control demand controlled ventilation strategy to provide the best perceived air quality?	Sverre B. Holøs
		OS16-06	ABS-0627	The effect of Sick Building Syndrome and perceived Air Quality on memory and cognition	Shmitha Arikrishnan
		OS16-07	ABS-0777	Monitoring of environmental quality parameters at places frequented by IIT Kanpur campus staff and students and examination of link with occupant	Anubha Goel
OS17	Thermal comfort, perceived air quality 5: Personal/Local Comfort Systems	OS17-01	ABS-0050	Study on local body direct heating to improve thermal comfort of workers in low temperature environment	Haiying Wang
		OS17-02	ABS-0650	The selection mechanism for local cooling intensity of human body derived from a cooling chair experiment	Yue Deng
		OS17-03	ABS-0699	The effects of combined local body cooling and air flow on thermal comfort and work performance in a hot environment	Jieyu Tang
		OS17-04	ABS-1145	Using personalized fan to shorten the recovery process of thermal comfort and lift work concentration after moderate level of exercise	Xinyuan Ju
		OS17-05	ABS-1261	Development of a similarity function to evaluate interpersonal differences in body thermal sensitivity distribution patterns	Yi Ju
OS18	Thermal comfort, perceived air quality 6: Thermal Sensation and Adaptation	OS18-01	ABS-0166	Study on physiological and psychological hypoxia adaptation of immigrants at high altitude	Cong Song
		OS18-02	ABS-0197	Seasonal differences in human responses with long-term hot history to increasing temperatures at high relative humidity	Xiaojun Fan
		OS18-03	ABS-0395	Evaluation of thermal adaptation of human body in residential and office buildings with an intermittent operation of split air-conditioners-a case stud	Mengru Dong
		OS18-04	ABS-0400	Impacts of the coupling effects of relative humidity and temperature on thermal comfort on hot-humid and hot-arid rural regions in summer in China	Qianqian Liu
		OS18-05	ABS-0589	Comparisons of the Body's Thermoregulation System in Different Climates based on Subject Experiments in Climate Chamber	Yingli Xuan
		OS18-06	ABS-1171	DEFINING THE THERMAL SENSITIVITY (GRIFFITHS CONSTANT) OF PASSENGERS AT CHINESE HIGH-SPEED RAILWAY STATION IN TRANSITION SEASON	Xingyu Zang
		OS18-07	ABS-1300	Influence of indoor microclimate on human clothing insulation and thermal adaption in different climate zones of China	Xiaowen Su
OS19	Thermal comfort, perceived air quality 7: Special Applications	OS19-01	ABS-0098	Integrated air curtains and air-conditioning system for improving indoor environment in Chinese residential kitchens	SUMEI LIU
		OS19-02	ABS-0481	Development of radiant floor cooling system using phase change material in the hot and humid climate of Indonesia	Andhang Rakhmat Trihamdani
		OS19-03	ABS-0830	Impact of houseplants on cognitive function	Jeffrey Siegel
		OS19-04	ABS-0849	Optimal combination of comprehensive physical environmental parameters for sleep quality improvement	Ting Cao
		OS19-05	ABS-0896	Comparison of thermal comfort of vehicle passengers according to gender and age	Jiyoung Kwak
		OS19-06	ABS-1101	Achievement of Desired Indoor Conditions in Cleanrooms: Cleanliness in Relation to Thermal Comfort	Katerina Roskotova
		OS19-07	ABS-1131	Integrated impacts of tree planting and street aspect ratios on urban thermal environment in street canyons: A scaled outdoor experiment	Taihan Chen
OS20	Thermal comfort, perceived air quality 8: Thermal Models and Standards	OS20-01	ABS-0092	Research on Indoor Thermal Comfort Standard of Chines Airport Terminal	Huang Yenhsiang
		OS20-02	ABS-0504	A Method of Determining the Weight of Objective Indoor Environment and Subjective Response Based on Information Theory	Zhongchen Zhang
		OS20-03	ABS-0681	Standard Effective Temperature based Adaptive-rational Thermal Comfort Model	Sheng Zhang
		OS20-04	ABS-0802	A systematic evaluation of indoor overheating interactions with outdoor heat conditions	Lili Ji
		OS20-05	ABS-0814	A new approach to indoor air quality and ventilation legislation in Belgium	Jelle Laverge
		OS20-06	ABS-1130	Regression of skin temperature with machine learning algorithms for thermal sensation prediction	Yeyu Wu
		OS20-07	ABS-1153	STUDY ON THE ENERGY CONSERVATION POTENTIAL OF OFFICE BUILDINGS IN A SUBTROPICAL CLIMATE	Ruijun Chen
		OS20-08	ABS-1236	Perspectives on recent data-driven methods for predicting thermal acceptability ranges in different types of buildings	Yi Wu
OS21	Sources and emissions 1: Formaldehyde and VOCs	OS21-01	ABS-0085	Study on VOC partition characteristics of fabrics in indoor thermal and humid environment	Xiaojun Zhou
		OS21-02	ABS-0184	Fine particle source tracking in a particle-laden upward jet with a crossflow	Jooyeon Park
		OS21-03	ABS-0303	Insights into transfer mechanism of phthalate esters in settled dust on source surface and non-source surface	Lingyi Kang
		OS21-04	ABS-0451	Photochemical recycling of nitrogen oxides on indoor surfaces	James Donaldson
		OS21-05	ABS-0547	It’s Coming From Inside the House! VOC Emissions at HOMEChem	Caleb Arata
		OS21-06	ABS-0866	Cleaning chemicals and practices: Effects on air quality and indoor microbiota	Leila Kakko
		OS21-07	ABS-1122	Migration of Organophosphorus Flame Retardants from Sources to Settled Dust	Xiaoyu Liu
OS22	Sources and emissions 2: Consumer Products	OS22-01	ABS-0201	Cognitive Impact of Essential Oil Emissions: Pollutant and Odor Effects	Bowen Du
		OS22-02	ABS-0210	Characterization of particle and VOC emissions from an essential oil diffuser	Jeffrey Siegel
		OS22-03	ABS-0278	Particle and Volatile Organic Compound Emissions from 3D Printers and Their Potential Exposure Risks	Qian Zhang
		OS22-04	ABS-0443	Temporal dynamics and emission rates of terpenes from essential oil diffusers in a real scale room	Frédéric THEVENET
		OS22-05	ABS-0447	Real consumer use patterns of essential-oil-based household products: emission rate assessment and impact on indoor air quality	Frédéric THEVENET
		OS22-06	ABS-0585	Characterization of the emissions of isothiazolinones from building and consumer products into indoor air	Léa Ducup de Saint Paul
		OS22-07	ABS-0726	Formaldehyde emissions from wooden toys: Method comparison and exposure assessment	Morgane Even
		OS22-08	ABS-1284	Chemical pollutant emission from a sleeping person and a carpet	Huiqi Shao
		OS23-01	ABS-0170	Real-time Characterization of Aerosol Particle Composition and Sources in a Student Office	Junyao Li

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OS23	Sources and emissions 3: Emissions Testing Methods	OS23-02	ABS-0683	Model predictions of size-resolved distributions of indoor ultrafine particles based on monitored total number concentrations	Yesol Hyun
		OS23-03	ABS-0820	Identification of the pollutant source in a scale multi-zone building through the impulse response method	Junyi Zhuang
		OS23-04	ABS-0854	Determination of the material surface concentration of organophosphate flame retardants by static SPME method: simplification of the calibration ar	Valerie Desauziers
		OS23-05	ABS-0868	Locating periodic contaminant sources in indoor environments with natural ventilation: An experimental study of a multi-robot olfaction method bas	Canxin Zhang
		OS23-06	ABS-1155	Small Test Chamber Experiment and Numerical Modeling for Sorption and Re-emission of Leaked Liquid-phase Chemicals on Three Types of Mortar S	Hiroshi Harashima
		OS23-07	ABS-1202	Development of a Concentration Driven VOC Emission Model in Modelica	Klaas De Jonge
OS24	Sources and emissions 4: Field Studies	OS24-01	ABS-0027	Airflow Impact on Vapor Intrusion: Characterization of an Advection Zone of Influence	JUAN SEBASTIAN RIOS MORA
		OS24-02	ABS-0302	Observation of dimethyl esters of C4-C6 aliphatic acids in the indoor air of a new apartment in Beijing, China	Jia Qiu
		OS24-03	ABS-0461	A Summary of Motion Characteristics of PM2.5 in Rural Houses of Northeast China	Yiming Yang
		OS24-04	ABS-0853	Study on Indoor Air Quality Evaluation of Village Buildings in Cold Regions During Winter Heating Period	Zixian Yu
		OS24-05	ABS-0941	GC-Orbitrap mass spectrometric non-target screening of VOCs from a museum in Beijing	Li Ding
		OS24-06	ABS-1013	Contribution to Indoor PM2.5 from Cooking using Field Data Collected from New California Homes	Haoran Zhao
		OS24-07	ABS-1264	Sources of indoor particulate matter in South African residential communities	Stuart J. Piketh
		OS24-08	ABS-1069	Effects of Outdoor Air Temperature on Flush-out in Residential Buildings	LEE Seung rim
OS25	Indoor particles and microbes 1: Microbial sources	OS25-01	ABS-0358	Relationships between airborne microorganism levels and ambient air temperature and relative humidity in hospitals: A systematic review and meta-	Waseem Hiwar
		OS25-02	ABS-0488	Diel Cycle of Indoor Bioaerosol Dynamics in the Tropics as a Proxy for Unpolluted Indoor Environments	Serene Lim
		OS25-03	ABS-0592	The microbiota of damaged and non-damaged building materials	Martin Täubel
		OS25-04	ABS-0736	Relationships between Fungal Communities in Puerto Rican Homes after Hurricane Maria	Juan Pedro Maestre
		OS25-05	ABS-0776	Bacterial and Fungal Ecology and Emissions Associated with Air Conditioner Cooling Coils	Alexa Bakker
		OS25-06	ABS-1252	Relative humidity levels associated with increases in microbial growth and MVOC emissions in carpet and drywall	Sarah R Haines
		OS25-07	ABS-1304	Relative humidity level influences the morphology of fungal growth in carpet	Karen C. Dannemiller
OS26	Indoor particles and microbes 2: Particle sources	OS26-01	ABS-0127	Influence of roughness on particle deposition around multi-slot diffusers	Pan YUE
		OS26-02	ABS-0263	Particle motion simulation for an office room with an electric heater worked based on the emission intensities estimation for particle sources	Shuang Zhang
		OS26-03	ABS-0379	Indoor Particle Resuspension Rate by Human Activities and Exposure in Daycare Center	Chai Yoon Um
		OS26-04	ABS-0652	Elemental compositions analysis on fine and ultrafine particles in urban residential kitchens during cooking in the Yangtze River Delta, China	Zhiwei Zhang
		OS26-05	ABS-0942	An analysis of Particulate matter infiltration characteristics according to real-time environmental condition	Sowoo Park
		OS26-06	ABS-1249	Exposure to UFPs (1-30 nm), fine particles and black carbon during different indoor activities in a residential apartment	Mehdi Amouie torkmahalleh
OS27	Indoor particles and microbes 3: Exposure risk	OS27-01	ABS-0041	Indoor air exposure on construction workers during an office interior retrofit program	Shuoqi Wang
		OS27-02	ABS-0178	Heterogeneity of Ultrafine Particle deposition patterns in Two Realistic Human Upper Airway Models	Nguyen Dang Khoa
		OS27-03	ABS-0182	Numerical infectious risk assessment of airborne particle dispersion in commuter bus interior environment	Akira Kurokawa
		OS27-04	ABS-1277	Resuspension exposure assessment for the SARS-CoV-2 virus	Andrea Ferro
OS28	Indoor particles and microbes 4: Transport and Transmission	OS28-01	ABS-0132	Modelling the influence of room orientation and care type on differences in norovirus exposure via an air-surface interface transmission route	Amanda Wilson
		OS28-02	ABS-0268	A Study of Short-Range Bioaerosol Deposition onto near Surfaces from a Cough	Cunteng WANG
		OS28-03	ABS-0464	Diurnal trends of indoor and outdoor fluorescent biological aerosol particles (FBAP) in Singapore	Jiayu Li
		OS28-04	ABS-0751	Characterizing the influence of boundary flow and surface type on microbe fate and transport in built spaces	Dahae Seong
		OS28-05	ABS-0980	Particle Size Distribution of Residential HVAC Filter Dust	Alireza Mahdavi
OS29	Indoor particles and microbes 5: Sampling and Evaluation	OS29-01	ABS-0196	Airborne microbial contamination in indoor environments – comparison of sampling technologies for enumeration by cultivable method	Gaëtan Pavard
		OS29-02	ABS-0426	Developing novel approaches for identifying a microbial signal of moisture damage in buildings	Rachel Adams
		OS29-03	ABS-0576	Multiplate air passive sampler to measure deposition rate of airborne microorganisms over time.	Waseem Hiwar
		OS29-04	ABS-0785	Personal Bioaerosol Sampler Combined with Adenosine Triphosphate Bioluminescence Assay	Li Liao
		OS29-05	ABS-0999	CLEAR Homes Project: a Participatory Science Approach to Study Indoor Air Quality	Jarma David
		OS29-06	ABS-1024	Does evidence support measuring spore counts to identify dampness or mold in buildings? A review of the literature	Mark Mendell
		OS29-07	ABS-1275	Improved quantification of fungi in indoor environmental samples: free dust compared to filter-bound dust	Samuel James Cochran
OS30	Indoor particles and microbes 6: Control approaches	OS30-01	ABS-0044	Effect of air-guiding skirt length on the flow recirculation in an operating room with downward laminar airflow	dexter lyndon
		OS30-02	ABS-0371	Copper ions adsorption and antimicrobial application of Chitosan/TiO2 composites	Yu Wei Tsai
		OS30-03	ABS-0499	Impact of building characteristics, household ventilation and cleaning behaviour on the prevalence and nature of microorganisms in the home	Gráinne McGill
		OS30-04	ABS-0835	Numerical Investigation on Energy Saving Effect of Reducing Circulating Air Volume in a Factory for Storing Satellites	Jiaan Zhao
		OS30-05	ABS-1040	Sterilization effect of UR-UVGI for indoor and inflow pathogens in an airborne infectious isolation room	Jong-Il Bang
		OS30-06	ABS-1070	Influences of Ventilation and Air cleaning on Indoor Particle Concentration In Daycare Center	Sung Won Cho

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OS31	Chemistry and transformations 1: Chemisty Model	OS31-01	ABS-0052	A Monte Carlo simulation for insights into indoor air chemistry	David Shaw
		OS31-02	ABS-0126	An open source model for investigating indoor air chemistry	David Shaw
		OS31-03	ABS-0633	Modeling indoor aerosol inorganic chemical processes with ISORROPIA	Michael Waring
		OS31-04	ABS-0837	Sensitivity analysis of indoor air concentrations to ambient air concentrations with the Simplified Indoor Air Chemistry Simulator	Vito Ilacqua
		OS31-05	ABS-0989	Comparison of the Simplified Indoor Air Chemistry Simulator (SIACS) with other indoor air chemistry models	Nicole Scharko
OS32	Chemistry and transformations 2: Indoor Sources	OS32-01	ABS-0449	What are the main non-reactive sinks of terpenes? Comparison of various indoor surfaces	Frédéric THEVENET
		OS32-02	ABS-0945	Implications for the importance of chlorine atoms indoors through measurements of hydrogen chloride	Cora Young
		OS32-03	ABS-0949	Indoor reactive nitrogen chemistry: New approaches and new homes	Trevor VandenBoer
OS33	Chemistry and transformations 3: Ozone and Oxidants	OS33-01	ABS-0466	Interfacial adsorption of gaseous PAEs on micro polyurethane fiber with activated carbon coating: Enhancement by electrostatic discharging	Zhuo Chen
		OS33-02	ABS-0749	Indoor Ozone Chemistry in a Real-World Study of Urban Apartments in the U.S.	Howard Kipen
		OS33-03	ABS-1026	The Impact of Mass Transfer Coefficients on Ozone Deposition Velocity in Typical Residential Units	Atila Novoselac
		OS33-04	ABS-1268	The illumination of painted surfaces in the presence of gaseous NO	Stephanie Jones
OS34	Chemistry and transformations 4: Aeosol and Particle	OS34-01	ABS-0105	Ethanolamine Influence on Secondary Organic Aerosol from -Pinene Ozonolysis	Ray Wells
		OS34-02	ABS-0179	Chamber study on migration of DNOP from the source to dust with accumulation of surface dust	Ao Li
		OS34-03	ABS-0642	Computing cooking organic mass emissions from HOMEChem	Bryan Cummings
		OS34-04	ABS-0780	Observations of Low-volatility Siloxanes in Airborne Particles During Oven Use at a Residential Test House	Erin F. Katz
		OS34-05	ABS-0986	Phthalate uptake by aerosol particles and humans – time resolved analysis with aerosol mass spectrometry	Axel Eriksson
		OS34-06	ABS-1214	Oxidized primary organic aerosol and secondary organic aerosol formation initiated by chlorine oxidation of indoor pollutants during bleach cleaning	Anita Avery
OS35	Air cleaning and filtration 1: Filtration	OS35-01	ABS-0130	The In-situ and Laboratory Efficiency of New and Used Residential HVAC Filters	Tianyuan Li
		OS35-02	ABS-0185	Evaluation of particle filtration control by unidirectional flow valve type device	Yeeun Kang
		OS35-03	ABS-0408	On-site Measurement and Optimization of Clean Air-Supply System in Industrial Cleanrooms	Zhiyao Ma
		OS35-04	ABS-0503	The Numerical Simulation for the Sterilization Effect with UV Lamps in Air-conditioning System	Tomohiro URYU
		OS35-05	ABS-0797	Experimental and numerical study of velocity profiles at the vicinity of HVAC pleated filters during clogging	Walid Mrad
		OS35-06	ABS-0981	Quantitative Filter Forensics Evaluation of Particulate Matter	Alireza Mahdavi
		OS35-07	ABS-1012	Extended Service Life of Activated Carbon Filters for Ozone Removal Due to Regeneration	Mengjia Tang
OS36	Air cleaning and filtration 2: Systems and Performance	OS36-01	ABS-0081	Experimental study on the effect of ununiform face air velocity on the performance of adsorption function of portable air cleaners	Ruiyan Zhang
		OS36-02	ABS-0128	Indoor Air Quality and Energy Implications of High-efficiency Filters in Residential Buildings	Tianyuan Li
		OS36-03	ABS-0275	Long-term Residential Particle Concentration Measurements: Impacts of Filters	Yizhi Zhang
		OS36-04	ABS-0316	Health effect of indoor ionization air purifier on children's cardiopulmonary function	Shan Liu
		OS36-05	ABS-0897	Relationship between indoor air quality of classrooms and students' perceived air quality according to before and after installation of air cleaner	Youngtae Choe
		OS36-06	ABS-1088	Field and Laboratory Investigation of Portable Air Cleaners' Long-term Performance	Wenhua Dai
		OS36-07	ABS-1182	The relationship between indoor fine dust and building airtight performance and evaluation of application of affordable technologies to improve airti	Sungwoong Yang
OS37	Air cleaning and filtration 3: Novel mechanisms	OS37-01	ABS-0272	Comparing the efficacy of UVC-LED and low-pressure mercury lamps upper-room UVGI systems for air disinfection	Sunday Nunayon
		OS37-02	ABS-0497	Development of an electrostatic precipitator type air conditioning system for reducing exposure of fine particle to passengers in subway	Ye-Sle Kim
		OS37-03	ABS-0639	Reduction of Aircrafts CO2 emissions trough the implementation of an innovative air filtration system	Arthur Roussey
		OS37-04	ABS-1117	A case study on toluene removal by PDMS-modified metal organic frameworks compared to activated carbon	Luqman Hakim Mohd Azmi
		OS37-05	ABS-1125	Reducing indoor air pollution through applied botanical biofiltration	Robert Fleck
		OS37-06	ABS-1222	Passive Strategies for Reducing the Impact of Outdoor Air Pollutants on Indoor Air Quality: A Combination of CAM Plants and Hydrogel membranes.	Ghayda Alhabib
OS38	Air cleaning and filtration 4: Materials	OS38-01	ABS-0042	Energy-efficient air filtration media for removal of volatile chemicals	Elwin Hunter-Sellars
		OS38-02	ABS-0246	Electrospun nanofiber air pollution filters: An experimental study	Roberta Orlando
		OS38-03	ABS-0327	Modeling and Experimental Studies of P-xylene Adsorption Behavior on Activated Carbon	Yunfei Xia
		OS38-04	ABS-0428	The influence of indoor air cleaners on the oxidative potential and sources of metals in indoor, outdoor, and personal exposure of school aged childre	Collin Brehmer
		OS38-05	ABS-1179	Facile hydrophobic modification strategy on hydrophilic metal organic frameworks for improved toluene capture	Luqman Hakim Mohd Azmi
		OS38-06	ABS-1206	Removal Effect of Formaldehyde and TVOC by Two Kinds of Photocatalyst with Different Doping Modification in Rooms	Xinzhu Guo
OS39	Ventilation and HVAC system 1: Various Spaces & Controls	OS39-01	ABS-0360	Experimental Study of the Influence of Air Supply on the Performance of Fume Hood in Chemical Laboratory	Chuang Meng
		OS39-02	ABS-0502	Development and performance evaluation of a personal air-conditioning system for private booths	Kosuke Kondo
		OS39-03	ABS-0658	Environmental Impact Evaluation of a High-Temperature Cooling System in a Mediterranean Climate	Henrikki Pieskä
		OS39-04	ABS-0769	Necessity research on mechanic ventilation for underground station tunnels	Yue Zhang
		OS39-05	ABS-0937	Use of Deep Learning Models to Predict Indoor Air Quality in a School Case Study	Anooshmita Das

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		OS39-06	ABS-1191	Window use habits in Belgian households	Silke Verbruggen
		OS39-07	ABS-1296	Daytime Passive Radiative Cooling using Biomimetic Metasurface with Asymmetric Electromagnetic Transmission Windows in a Humid Sub-tropical C	Hau Him Lee
		OS39-08	ABS-0354	Stereoscopic-PIV study of the nozzle cross section geometry impact on the entrainment behaviour of multiple air jets in active chilled beams	Max Rohn
OS40	Ventilation and HVAC system 2: Energy Efficient Controls	OS40-01	ABS-0054	Evaluation of annual energy saving potential for a new hybrid air conditioning system	Chengqin Ren
		OS40-02	ABS-0097	Analyzing the Energy-saving Potential of Demand-Controlled Ventilation in Hospitals via Dynamic Building Simulations	Martin Rätz
		OS40-03	ABS-0113	Evaluating the cooling capacity of diffuse ceiling ventilation systems for different ratios of perforated area	Parastoo Sadeghian
		OS40-04	ABS-0155	AHU Discharge Air Temperature Reset Strategy According to Outdoor Air Temperature	Min-Kyeong Park
		OS40-05	ABS-0317	Energy Consumption Analysis Comparing Two Types of Air Conditioning System in Smart Farm	Lihua Lin
		OS40-06	ABS-0353	Model-based Fault Detection and Localization Algorithm for Air Handling Units in Large-Scale Buildings	Panayiotis Papadopoulos
		OS40-07	ABS-0362	Integrated Energy Active Windows with Low-Temperature Heating Systems in Cold Climates	Behrouz Nourozi
		OS40-08	ABS-0546	Effects of thermal mass on the cooling capacity and surface heat flux of radiant systems under direct solar radiation	Kan Shindo
OS41	Ventilation and HVAC system 3: Natural Ventilation & Infiltration	OS41-01	ABS-0087	Development of a new passive tracer gas test to measure total air change rates	Sarah Paralovo
		OS41-02	ABS-0328	Analytical study of natural convection flow in a cylindrical cavity with one end open at the top	Yao Tong
		OS41-03	ABS-0417	Applying machine learning for building natural ventilation control	wei zhang
		OS41-04	ABS-0528	Field measurement and dynamic simulation on the energy loss thorough door open with air conditioner running in a commercial store	Satoko Yano
		OS41-05	ABS-1068	Modification of predicting parameters of occupants window opening behaviour in residential buildings using Machine learning algorithm	An Youngmin
		OS41-06	ABS-1134	Investigation of single-sided multi-storey building natural ventilation performance with air change rate by Scale-model outdoor experiments	Xia Yang
OS42	Ventilation and HVAC system 4: Thermal Comfort	OS42-01	ABS-0079	Experimental study of indoor thermal environment with modularity radiant heating in ultra-low energy buildings	Dongkai Zhang
		OS42-02	ABS-0351	Design strategies for decreasing cooling demand and increasing individual thermal comfort in open-plan offices – A review	Haider Latif
		OS42-03	ABS-0430	Benchmarking Thermal Comfort Performance of Two Residential Air Distribution Systems in a Low-Load Home	Hyojin Kim
		OS42-04	ABS-0482	The influence of manikin movement on temperature stratification recovery time in a chamber with the displacement ventilation system	Feng Lu
		OS42-05	ABS-1124	CO2 levels in differently ventilated classrooms with regard to occupational ventilation behavior under spring and summer conditions	Tobias Burgholz
OS43	Ventilation and HVAC system 5: Transmission & Distribution	OS43-01	ABS-0136	Numerical Evaluations of a Multiple 3D Particle Tracking Velocimetry System for Indoor Air Flow Study	Masoumeh Nedaei
		OS43-02	ABS-0139	Optimal Control of Indoor Air Temperature, Humidity and Airborne Pollutant Concentrations	Zhiwei Sun
		OS43-03	ABS-0186	A fast-response quartz-enhanced photoacoustic spectroscopy SF6 sensor for measuring contaminant transport	Liye Fu
		OS43-04	ABS-0199	Determining inter-zonal flow rates using passive sampling of tracer gases	Doyun Won
		OS43-05	ABS-0267	Exposure to metabolic CO2 in a room with different air distributions	Tereza Snaselova
		OS43-06	ABS-1074	Air distribution of oxygen supply through guardrail slot diffusers in high-altitude hypoxic areas	Ran Gao
		OS43-07	ABS-1135	Numerical simulation of the underfloor air distribution system using the different boundary temperature conditions	Dwi M. Lestari
OS44	Ventilation and HVAC system 6: Fluids & Flows	OS44-01	ABS-0145	Performance Evaluation of Heat Exchange Element by Numerical Model	Juyeon Chung
		OS44-02	ABS-0269	Numerical Simulation of Kitchen Oil Fume Diffusion comparing Open and Closed Spaces	Wuhao Xie
		OS44-03	ABS-0293	Heat transfer performance analysis of a novel curved surface radiant ceiling panel: Numerical approach	minzhi Ye
		OS44-04	ABS-0347	Design method of dynamic balance for complex multi-terminal air exhaust system	Yanlei Yu
		OS44-05	ABS-1132	Scaled Outdoor Experimental Study on the Impact of Asymmetric Wall Heating on Flow Regimes in 2D Street Canyon with Various Aspect Ratios	Guanwen Chen
		OS44-06	ABS-1167	NUMERICAL ANALYSIS OF THE ENTRANCE-TRANSITION SPACE FORM OF COMMERCIAL BUILDINGS AGAINST AIR INFILTRATION	Lei Ren
		OS44-07	ABS-1286	The Influence of Opening Shapes on Wind-driven Natural Ventilation Performance in Gymnasia	Zheng CHENG
OS45	Ventilation and HVAC system 7: Residential Ventilation	OS45-01	ABS-0215	Determination of direct capture efficiency for residential range hoods	Changsheng Cao
		OS45-02	ABS-0279	Energy flexibility of residential buildings using a novel multi-zone demand controlled ventilation and heating system	Samira Rahnama
		OS45-03	ABS-0350	Collection of Experiences with Mechanical Ventilation in Renovated Apartment Buildings	Ivan Nikolaisson
		OS45-04	ABS-0645	Ventilation measurements and CO2 exposure during sleep - How important is where you measure CO2 in a bedroom?	Chandra Sekhar
		OS45-05	ABS-0735	Comparison of PFT and CO2 Estimates of Air Exchange Rates in an Apartment	Mikael Björling
OS46	Ventilation and HVAC system 8: Ventilation for IAQ	OS46-01	ABS-0294	Inhalation exposure risk assessment associated with inappropriate use of fume hood	Ryota Muta
		OS46-02	ABS-0309	How do outdoor air pollutants affect the indoor air quality in a high-rise building? A case study in Suzhou, China	Moon Keun Kim
		OS46-03	ABS-0326	A preliminary field study on using air cleaners to substitute mechanical ventilation in an open office in Shanghai	Yujie Fan
		OS46-04	ABS-0491	Reduction of Indoor Particulate Matter using Artificial Neural Network-based Optimal Ventilation System for Indoor Air Quality	Na Kyong Kim
		OS46-05	ABS-0540	An Effective Ventilation System to Reduce PM2.5 during Cooking in Apartment	Hangyeol Park
		OS46-06	ABS-0591	Development of a methodology for in-board assessment of the efficiency of air quality filters	Ambre Delater
		OS47-01	ABS-0313	Dehumidification performance and control of vacuum-based membrane dehumidifier in HVAC system	Seong-Yong Cheon
		OS47-02	ABS-0314	Development of Frost Threshold Temperature Model in Energy Recovery Ventilator regarding Indoor and Outdoor Air Conditions	Jinyoung Ko

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OS47	Ventilation and HVAC system 9: Dehumidification and Heat Removal	OS47-03	ABS-0315	Energy performance of a vacuum membrane dehumidification-based variable air volume air conditioning system	Hye-Jin Cho
		OS47-04	ABS-0341	Performance Prediction of Metal-Organic Frameworks (MOFs) based Desiccants for Adsorption Air-conditioning System	Kan Zu
		OS47-05	ABS-0862	Optimization of the energization-regeneration desiccant air-conditioning system using a conductive polymer	Hikaru Kobayashi
		OS47-06	ABS-1221	Study on the Multi-scene Alternating Ventilation evaluated by Indoor Heat Removal Efficiency	Weijia Zhang
OS48	Building simulation and CFD 1: Indoor air pollutants and infection	OS48-01	ABS-0053	Numerical simulation of the transport of leaking passive pollutants. Effect of disturbing moving obstacles on a laboratory fume cupboard	Georges HALIM ATALLAH
		OS48-02	ABS-0057	Markov-chain-based inverse modeling to fast locate hazardous gaseous pollutant sources in buildings with ventilation systems	Lingjie Zeng
		OS48-03	ABS-0096	Prediction of transient particle transport in transient indoor airflow by integrated fast fluid dynamics and Markov chain model	Wei Liu
		OS48-04	ABS-0391	Infection control and sustainability measures for a healthcare facility	MANOJ Kumar Satheesan
		OS48-05	ABS-0775	Analysis of Infection Risk with Agent Simulation - Inhibiting Infection Risk with Surgical Mask and Corridor Width	Yoshiki Kitajima
		OS48-06	ABS-0910	Leakage of exhaled contaminant from airborne infection isolation room due to medical staff walking motion	Seongmin Jo
		OS48-07	ABS-0998	Validation of IAQ Models for Predicting VOC and PM Indoor Concentrations	Corinne MANDIN
		OS48-08	ABS-1287	A Fractional Convective Mass Transfer Model For Simulating Formaldehyde Emission	Yan Zhang
OS49	Building simulation and CFD 2: CFD	OS49-01	ABS-0233	Flow and Hygrothermal Transfer Analysis in Three Dimensional Clothing Model integrated with Computer Simulate Person	Kei Murota
		OS49-02	ABS-0234	Three Dimensional Clothing Model integrated with Computer-Simulated Person for Computational Fluid Dynamics Simulation	Yujin Kang
		OS49-03	ABS-0254	Numerical Investigation on the Flow Characteristics of the Square/Rectangular Exhaust Hood Assisted by a Jet	Jing Zhang
		OS49-04	ABS-0257	Dual steady flow solutions induced by the interaction between downward jet flow and upward human thermal plume	Jianchao Ma
		OS49-05	ABS-0594	Examination of solar shading effect of external louver by actual measurement and CFD	Akira Okamura
		OS49-06	ABS-1142	Investigation of the interfacial mixing in the gravity-driven bidirectional flow through a large vertical opening using CFD	Elyas Larkermani
		OS49-07	ABS-1256	Wall with air cavity: Design, Experimental test and Hygrothermal Modeling	Xueqiong He
		OS49-08	ABS-1259	The impacts of pollutants diffusion via different opening size between kitchen and neighbor rooms	Pei-Tsen Shih
OS50	Building simulation and CFD 3: Energy and indoor environment	OS50-01	ABS-0099	Inverse design of an indoor environment using a filter-based topology method with experimental verification	Xingwang Zhao
		OS50-02	ABS-1139	Prediction and Analysis of Indoor Pollutant Concentration and Thermal Comfort of a Residential Building	Yiting Kang
		OS50-03	ABS-1263	Indoor climate measurements and datasets for building simulations	Markus Hofmann
		OS50-04	ABS-1295	IAQ-prediction in multi-zone reduced order BES-models	Matthias Van Hove
OS51	Building simulation and CFD 4: Outdoor and buildings	OS51-01	ABS-0229	Transient micro-climate formation around computer simulated person in Personalized Work Environment	Sung-Jun Yoo
		OS51-02	ABS-0990	Towards a statistical determination of 3D outdoor air quality	Edouard WALTHER
		OS51-03	ABS-1077	Evaluation of the Annual Stack Ventilation Potential in Low-rise Atrium Buildings Based on EnergyPlus and OpenFOAM	Mingjie Zhang
		OS51-04	ABS-1110	A comprehensive approach to study stack emissions from a research building in a small urban setting	Kai Yip Lee
		OS51-05	ABS-1133	Numerical investigations on Re-independence and influence of thermal forcing on flow characteristics in 2D urban street canyon models	Hongyu Yang
OS52	IEQ monitoring and data analytics 1: Occupant responses and productivity	OS52-01	ABS-0147	Study on the indoor illumination and incident angles during the day cause influence of circadian rhythm of elders in Taiwan	Chien-Hui Chan
		OS52-02	ABS-0433	Characterization of Long-Term Sub-Hourly Thermal Comfort Performance Data	Hyojin Kim
		OS52-03	ABS-0538	Exploration for The Prediction of Thermal Comfort & Sensation with Application of Building HVAC Automation	Joon-Ho Choi
		OS52-04	ABS-0967	Evaluating Occupant Perceptions of Their Presence and Energy-use Patterns in Shared Office Spaces	Masab Khalid Annaqeeb
		OS52-05	ABS-1233	Impact of individual IEQ factors on occupants' satisfaction in different types of buildings	Zhao Dong
OS53	IEQ monitoring and data analytics 2: Building environmental data analytics	OS53-01	ABS-0442	Collecting Long-Term Indoor Environmental Quality Data in Highly Energy-Efficient Dwellings	James McGrath
		OS53-02	ABS-0725	A Data-driven Study on the Association of Indoor Air Quality, Thermal Comfort Factors and Student Academic Performance	Josephine Lau
		OS53-03	ABS-0773	Continuous monitoring of indoor environmental quality: variation explained by building clustering	Samy Clinchard
		OS53-04	ABS-0812	Using Big Data from IoT connected AHU for cross-sectional surveys	Jelle Laverge
		OS53-05	ABS-0826	Detection of occupancy presence and activities in a simulated office environment	Seoyeon Yun
		OS53-06	ABS-0893	Occupants' status detection from environment and electricity consumption data using machine learning.	Ye Rin Lee
OS54	IEQ monitoring and data analytics 3: IAQ sensor technologies	OS54-01	ABS-0230	A High Granularity State-Space Method for Contaminant Detection and Isolation in Intelligent Buildings	Alexis Kyriacou
		OS54-02	ABS-0323	Low-cost IAQ sensor applications for building system performance evaluation	Gen Pei
		OS54-03	ABS-0720	Detecting VOCs with metal oxide decorated graphene gas sensors for air quality monitoring applications	Marius Rodner
		OS54-04	ABS-1289	Low Cost tool for finding ventilation rates for Airborne Infection Control in the Built Environment	Raja Singh
OS55	IEQ monitoring and data analytics 4: Indoor air quality and human exposure	OS55-01	ABS-0445	Quit Blaming ASHRAE Standard 62.1 for 1000 ppm CO2	Andrew Persily
		OS55-02	ABS-0747	Associating different indoor air contaminant levels with various ventilation systems in K-12 classrooms	Josephine Lau
		OS55-03	ABS-0894	Development of real-time PM2.5 exposure monitoring model of urban population using air quality monitoring sensor	Jinhyeon Park
		OS55-04	ABS-1000	Indoor air quality in recently constructed US houses with and without mechanical ventilation	Brett Singer
		OS55-05	ABS-1213	Predicting fine and coarse PM concentrations in well-mixed indoor air for a large office building using regression models	Shuoqi Wang

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		OS55-06	ABS-1297	Automating Source Apportionment of PM2.5 Time-Resolved Measurements using a Data-Driven Machine-Learning Approach	Wanyu Rengie Chan
OS56	Other Topics 1: Smart sensor and indoor nvironment	OS56-01	ABS-0195	Rising damp in historical buildings in tropical climate: A case study of hygro-thermal analysis	Sarin Pinich
		OS56-02	ABS-0387	Implementation of wireless IAQ sensing network for real-time monitoring in a university campus in Hong Kong	TSANG Tsz Wun
		OS56-03	ABS-0641	Monitoring Household Air Pollution Caused by Open Fire Stoves in Rwanda	Yo Ishigaki
		OS56-04	ABS-0646	Long term evaluation of the low-cost PM2.5 sensors at five urban air monitoring stations in Taiwan	Gung-Hwa Hong
		OS56-05	ABS-0878	Integrated Wearable System for Monitoring Personal Health and Environmental Conditions	Md Hasib Fakir
		OS56-06	ABS-1288	Developing a Test Protocol for Measuring Office Productivity in Different Indoor Environments	Sharareh Ghanbari
OS57	Other Topics 2: Building features and light	OS57-01	ABS-0084	Aspects of a building affordance assessment protocol	Helene Teufl
		OS57-02	ABS-0091	Parametric analysis of cylindrical particle packing	zhang chengquan
		OS57-03	ABS-0519	Residential layout recognition – comparison between image segmentation and machine learning	Qiushi He
		OS57-04	ABS-0471	Development of systematic procedure to drivers selection and thresholds extraction relating personalized shading behavior	Canjun Li
		OS57-05	ABS-0560	Experimental study on the influence of multi-zone separate control window on indoor light and thermal environment	Shibo Wang
		OS57-06	ABS-0731	The Influence of Residential Light on the Mental Health of U.S. Veterans and Department of Defense Personnel	Nathanael Kohl
		OS57-07	ABS-0846	Analysis and prediction of indoor visual perception affected by multiple luminous factors	Jingyun Shen
OS58	Other Topics 3: Energy and climate change	OS58-01	ABS-0403	The ALDREN-TAIL index, an indicator of indoor environmental quality (IEQ) in buildings addressing health and well-being	Pawel Wargocki
		OS58-02	ABS-0556	Teaching The Concept Of Adaptive Thermal Comfort In Building Design Education	Runa T. Hellwig
		OS58-03	ABS-0828	Integrated assessment across building and city scales using a system-of-systems framework	Chenyang Bi
		OS58-04	ABS-1126	Environmental impact assessment of hybridGEOTABS systems in the EU building stock based on dynamic modelling	Rana Mahmoud
		OS58-06	ABS-1190	Retrofitting for hygrothermal and energy performance improvement of historic building for future climates change	Hyun Mi Cho
OS59	Other Topics 4: Energy savings	OS59-01	ABS-0189	Age effects on summer air-conditioner use	Noriko Umemiya
		OS59-02	ABS-0713	Building Indoor Overheating and Impact of Local Extreme Heat Conditions	Chang Shu
		OS59-03	ABS-0804	A simulation study for comparing the cooling performance and cooling potential of daytime radiative cooling	Xinxian Yu
		OS59-04	ABS-1096	Research on energy consumption prediction of urban residential heating in hot summer and cold winter zones in China based on scenario analysis me	Xiufeng Tian
		OS59-05	ABS-1189	Study on the energy-saving effect of fuel cell co-generation system in condominium based on the performance data	Kazui Yoshida
		OS59-06	ABS-1293	How Residential Energy Efficiency Retrofits Influence Indoor Air Quality, Comfort, and Health: A Review of Empirical Data	Wanyu Chan
OS60	Other Topics 5: Novel approaches	OS60-01	ABS-0150	Study on the feasibility of circular construction in Taiwan – take recycle building materials as example	P.H. WANG
		OS60-02	ABS-0205	Metal-Organic Frameworks based Precise Humidity Control Material (MOF-PHCM) for Autonomous Regulation of Indoor Moisture	Menghao Qin
		OS60-03	ABS-0276	Preparation and Characterization of Metal-Organic Framework/Microencapsulated Phase Change Material Composites for Indoor Hygrothermal Cont	Kan Zu
		OS60-04	ABS-0562	Digital model of indoor environment demand and technology strategy of rural houses in cold area of China-- a case study of a village in Hebei, China	Siwei Xu
		OS60-05	ABS-0750	A Review on Current Passive House Performance and Potentials in Different Climate Zones	Xinyi Li
		OS60-06	ABS-0823	Evaluation of Plant Photosynthesis and Photomorphogenesis in 3D Greenhouse Model Using Spectral Irradiance Simulation	Soma Sugano
		OS60-07	ABS-1184	Analysis of the energy efficiency of attached PCM as an indoor decoration element	Beom Yeol Yun
		OS60-08	ABS-1185	Composite building material that considers heat and moisture comprehensively using porous absorbing sediment and MPCM.	Hyeonseong Yuk