

# Session I

# Poster presentations

## Poster session I

October 9, 13:00-13:40

| Poster ID | Paper ID | Author  | Paper title  |
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| P1-1      | 20       | Changan Wang, Song Wu, Qiang Lv, Wufeng Chen, Defu Che                | Correlations of coal chemical properties in China: quantitative analysis from thousands of data  |
| P1-2      | 855      | Xiaoyuan Chen   | A concept of hybrid energy transfer considering the multipurpose utilization of liquefied shale gas, liquefied nitrogen and superconducting dc cable |
| P1-3      | 452      | Jarek Milewski, Jakub Kupecki, Konrad Motylinski                      | Dynamic modelling of the direct internal reforming (DIR) of methane in 60-cell stack with electrolyte supported cells                                |
| P1-4      | 584      | Zheng Fan, Xu Yang, Huimin Zhang, Wei Xu, Wu Zucheng                  | Energy harvest from contaminants via coupled redox fuel cells  |
| P1-5      | 588      | Fan Zheng, Wu Zucheng   | In-situ production of hydrogen peroxide as oxidant for direct urea fuel cell   |
| P1-6      | 503      | Quanshun Yu   | Application of diesel particulate filter on in using on-road vehicles  |
| P1-7      | 539      | Is Fatimah, Septian P Yudha   | Kf-modified natural halloysite as green catalyst in microwave assisted biodiesel conversion  |
| P1-8      | 919      | Jingyuan Xu, guoyao yu, Limin Zhang, Zhanghua Wu, Wei Dai, Ercang Luo | A novel multi-stage looped thermoacoustic heat engine using assembly of elastic membrane and a solid mass  |
| P1-9      | 111      | Lingbao Wang, Huashan Li, Xianbiao Bu, Hanzhi Wang, Weibin Ma         | Performance study of a double absorption heat transformer  |
| P1-10     | 267      | Jer-Huan Jang, Po-Han Lin, Dao-Yi Huang, Bo-Han Chen                  | Effect of ignition timing on the emission of internal combustion engine with syngas containing hydrogen using a spark plug reformer system           |
| P1-11     | 287      | Cheng Xie   | Investigation on jet characteristics of hydrogen injection and injection strategy for backfire control in a port fuel injection hydrogen engine      |
| P1-12     | 354      | Jer-Huan Jang, Yu-Jen Chiu, Han-Chieh Chiu, Ren-Horn Hsieh            | Experimental study on the reaction conditions of a methanol steam reforming process  |
| P1-13     | 913      | Zhixin Yu, Hailong Li, Kristian Stangeland, Dori Yosef Kalai          | The effect of temperature and initial methane concentration on carbon dioxide methanation on Ni based catalysts                                      |
| P1-14     | 914      | Zhixin Yu, Hailong Li, Kristian Stangeland, Dori Yosef Kalai          | CO <sub>2</sub> methanation: the effect of catalysts and reaction conditions   |
| P1-15     | 660      | Hanzhi Wang, Huashan Lia, Lingbao Wanga, Xianbiao Bu                  | Thermodynamic analysis of organic rankine cycle with hydrofluoroethers as working fluids   |
| P1-16     | 160      | Azaza Maher   | Finite state machine household's appliances models for non-intrusive energy estimation   |
| P1-17     | 198      | Rory Jones  | The actual performance of aspiring low energy social houses in the United Kingdom  |
| P1-18     | 742      | Fabrizio Leonforte, Niccolò Aste, Claudio Del Pero, Rajendra Adhikari | Sustainable building design in Kenya   |
| P1-19     | 64       | Lin Lu  | A novel CHP-HP coupling system and its optimization analysis by genetic algorithm  |
| P1-20     | 24       | Zhen Peng   | Price-dependent decision of new energy vehicles considering subsidies and backorders   |
| P1-21     | 131      | Yanli Feng  | Analytical calculation for predicting the core loss of surface-mounted permanent magnet machine  |
| P1-22     | 195      | Zhijian Song  | Research on no load shifting process of AMT in pure electric vehicles  |
| P1-23     | 229      | Xiaolin Xu  | Estimate of super capacitor's dynamic capacity   |
| P1-24     | 260      | Wang Xiao-bing, Zhang jun   | Study on the optimal control of DCT's movement for electric vehicle  |
| P1-25     | 284      | Chengming Zhang, Qingbo Guo, Liyi Li, Jiangpeng Zhang, Mingyi Wang    | Design and implementation of a loss optimization control for electric vehicle in-wheel permanent-magnet synchronous motor direct drive system        |

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| P1-28 | 312 | Chaopeng Li   | Direct yaw-moment control based on fuzzy logic of four wheel drive vehicle under the cross wind   |
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| P1-30 | 365 | Zhixing Wang, Minshan Wei, Chong Guo, Meng Zhao                               | Enhance the heating performance of an electric vehicle AC/HP system under low temperature   |
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| P1-32 | 385 | Mei Yan, Hongwen He, Hui Jia, Menglin Li, Xue Xue                             | Model predictive control of the air-conditioning system for electric bus  |
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| P1-37 | 626 | Xin Xin   | Optimal design of electric vehicle power system with the principle of minimum curb mass   |
| P1-38 | 633 | Xunming Li, Hui Liu   | Mode integration algorithm based plug-in hybrid electric vehicle energy management strategy research                                      |
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| P1-40 | 642 | Wang Ju   | Control strategy and simulation of four-wheel-hub vehicles torque distribution on bisectonal road   |
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| P1-43 | 809 | Yongxi Yang, Haipeng Liu, Xiaopeng Wu   | A computationally efficient pm power loss derivation in thermal modelling for surface-mounted brushless ac pm machine                     |
| P1-44 | 824 | Xun Zhang, Hui Liu, Chen Yinqi  | Active damping of torsional vibration on the powertrain of power-split vehicle  |
| P1-45 | 970 | Mingfei Gao, Jibin Hu, Zengxiong Peng   | Study on optimization for transmission system of electric drive tracked vehicle   |
| P1-46 | 67  | Chao Luo  | The comprehensive evaluation of optimization air-condition system based on analytic hierarchy methodology                                 |
| P1-47 | 576 | Qunli Zhang, Lin Zhang, Yinlong Li  | Suitability analysis of the heating method of low temperature air source heat pump applied in north China                                 |
| P1-48 | 747 | Ji Feng, Kong Qiongxiang, Xiao He, Ying Cao, Yanjun Sun, Kangying Chen        | Numerical analysis of the dynamic heat transfer through an external wall under different outside temperatures                             |
| P1-49 | 658 | Huang JinHua, Gu Bochuan, Liu Fei, Tang Shengwei, You Yi                      | The research on remote control technology of power system operation cockpit based on application virtualization                           |
| P1-50 | 727 | Huang JinHua, Gu Bochuan, Tang Shengwei                                       | The key technology of operation smart system seamless information integration and test  |
| P1-51 | 311 | Yuankai Bian, Hantao Wang, Heather Wyman-Pain, Chenghong Gu, Furong Li        | Frequency response in the GB power system from responsive CHPs  |
| P1-52 | 631 | Dandan Su   | Sliding mode controller for permanent magnetic synchronous motors   |
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| P1-54 | 242 | Wei Mao, Shirong Zhang  | Energy efficiency optimization of coal conveying systems with consideration of crushers   |
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| P1-57 | 162 | Kai Chen, Jibin Hu, Zengxiong Peng  | Analysis of active vibration for HEVs through electro-mechanical coupling   |
| P1-58 | 368 | Shudong Shen  | Decomposition analysis on the air pollutant baseline emission factors in China's power sector                                     |
| P1-59 | 91  | Xinyan Song, Cantao Ye  | Climate change adaptation pathways for residential buildings in southern China  |
| P1-60 | 239 | Wenchao Li  | The demand forecast and equilibrium analysis of electricity consumption-take Jiangsu province as an example                       |
| P1-61 | 489 | Ramesh Bansal, N Mbungu, R Naidoo   | Real-time electricity pricing: TOU-MPC based energy management for commercial buildings   |
| P1-62 | 617 | Shumin Jiang  | Analysis of the Chinese natural gas power generation cost under the market linkage mechanism                                      |
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| P1-64 | 987 | Cuncun Duan, Bin Chen   | Energy-water nexus in China: cointegration and scenario analysis  |
| P1-65 | 989 | Saige Wang, Bin Chen  | Water-energy nexus in China's electric power system   |
| P1-66 | 171 | Guicai Liu, Yanfen Liao, Xiaoqian Ma, Libao Yin, Jieliang Zhou                      | A calculation method for CO <sub>2</sub> emission in utility boilers based on BP neural network and carbon balance                |
| P1-67 | 454 | Lukas Lundström   | Adaptive weather correction of energy consumption data  |
| P1-68 | 315 | Qinzhe Liu, Qixin Chen, Gang Chen, En Lu  | Optimization of LNG terminal reserve planning for combined gas and electricity system   |
| P1-69 | 761 | Zhen Wang, Yunna Wu   | The decision-making of agriculture & solar complementary roof power generation project in rural area                              |
| P1-70 | 829 | Meng Xu, Chunhui Li, Shibao Lu  | Sustainable water resources utilization on energy industry based on the gray water footprints assessment in Hunan province        |
| P1-71 | 991 | Dan Song, Bin Chen  | Energy conversion efficiency analysis of a cement production chain  |
| P1-72 | 66  | Chao Luo  | The effect analysis of thermal efficiency and optimal design for boiler system  |
| P1-73 | 95  | Weiwei Shao, Jie Feng, Jiahong Liu, Guiyu Yang, Zhiyong Yang, Jianhua Wang          | Research on the status of water conservation in the thermal power industry in China   |
| P1-74 | 247 | Hengjin Zhang, Yanfen Liao, Jia Luo, Le Wu, Wenjun Wan, Xiaoqian Ma, Yousheng Lin   | Optimization of the exhaust gas oxygen content for coal-fired power plant boiler  |
| P1-75 | 254 | Hailin Fang, Yanfen Liao, Shihe Chen, Yaqing Zhu, Xiaowei Peng, Xiaoqian Ma, Kai Su | Energy-loss analysis of thermal power unit based on multifactor disturbance theory  |
| P1-76 | 713 | Chenxiao Zheng  | Numerical simulation and experimental study of comfort air conditioning influenced by bottom-supply and stratum ventilation modes |
| P1-77 | 732 | Qi Zhang, Yu Wang   | The power system environmental optimal dispatch containing air quality forecast   |
| P1-78 | 978 | Chunsheng Guo, Fangyi Qu, Yong Liu, Xianbo Nian, Ziang Chen, Yong Zou               | Numerical simulation of steam injection for heavy oil thermal recovery  |
| P1-79 | 558 | Wadha Al-Marria, Amin Al-Habaibeha, Hafez Abdo                                      | Exploring the relationship between energy cost and people's consumption behaviour   |
| P1-80 | 650 | Bo Li, Sheng-Dong Liu, Yun-Pei Liang  | Experimental study of methane hydrate dissociation by depressurization and electrical heating                                     |
| P1-81 | 125 | Hongtu Fan, Xiaoyuan Wang, Yuezhao Zhu, Minzhao Zhu                                 | Heat transfer simulation and analysis of ice and snow melting system using geothermy by super-long flexible heat pipes            |
| P1-82 | 262 | Baiman Chen   | The development of swirling decaying laminar flow in an annular pipe  |
| P1-83 | 585 | Vaclav Novotny, Michal Kolovratnik, Jakub Mascuch, Hung-Yin Tsai                    | Design of experimental rig for validation of absorption power cycle concept   |
| P1-84 | 178 | Jiafei Zhao, Zhen Fan, Yongchen Song, Bin Wang, Chaomin Sun, Yangmin Kuang          | MRI analysis for methane hydrate dissociation by depressurization and the concomitant ice generation                              |
| P1-85 | 183 | Yundi Fu, Zhiguo Qu, Liang Zhou   | Prediction of the effective thermal conductivity of aerogel nano-porous materials   |

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| P1-86  | 401 | Qi Liang, Ya-Ling He, Yi-Peng Zhou, Tao Xie                                | Study on lattice thermal conductivity of silicon thin film with aligned nano-porous                                |
| P1-87  | 601 | Yueh-Heng Li, Chih-Yu Lin, Jing Ru Hong                                    | Development of micro-thermophotovoltaic platinum tubular reactor   |
| P1-88  | 703 | Dan Sui  | Investigation of thermophysical properties of nanofluids for application in geothermal energy                      |
| P1-89  | 216 | Binbin Bao, Zhiyuan Wang, Hong Xu, Jinglei Liu                             | Anti-coking effect of MnCr <sub>2</sub> O <sub>4</sub> spinel coating during light naphtha thermal cracking        |
| P1-90  | 360 | Beibei Lu, Yinfeng Wang, Yuezhao Zhu, Hong Liu, Xin Yan                    | Silicon gradients-containing films for mid- high temperature non-vacuum solar absorber coatings                    |
| P1-91  | 32  | Baiman Chen  | Numerical analysis of acoustic field in a 2-stage traveling wave thermoacoustic engine based on deltaec            |
| P1-92  | 89  | Zhitong Ma, Huashan Li, Xi Liu, Xianlong Wang, Hanzhi Wang                 | Off-design analysis of hydrocarbon-based ejector-expansion refrigeration cycle                                     |
| P1-93  | 113 | Hongsheng Dong, Yongchen Song, Jiafei Zhao, Zhen Fan, Bin Wang, Shuang Xue | Hydrate-based reduction of heavy metal ion from aqueous solution   |
| P1-94  | 117 | Yongchen Song, Hongsheng Dong, Bin Wang, Jiafei Zhao, Zhen Fan             | Gas production from methane hydrate deposits induced by depressurization in conjunction with thermal stimulation   |
| P1-95  | 430 | Bo Wang, Tawfik Badawy, Peter Hutchins, Powen Tu, Hongming Xu, Xinyu Zhang | Numerical investigation of the deposit effect on GDI injector nozzle flow  |
| P1-96  | 808 | jimin kim, Taehoon Hong, Myeonghwi Lee                                     | Analysis of energy consumption and indoor temperature distributions in educational facility based on CFD-BES model |
| P1-97  | 754 | Vinod Kumar Venkiteswaran, Surenthira Stephen Ramachanderan                | Carbon (CO <sub>2</sub> ) footprint reduction analysis for buildings through green rating tools in Malaysia        |
| P1-98  | 435 | Qin Wang, Bingjian Zhang, Chang He, Changchun He, Qinglin Chen             | Optimal design of a new aromatic extractive distillation process aided by co-solvent mixture                       |
| P1-99  | 979 | Xuegang Liu, Chang He, Changchun He, Bingjian Zhang, Qinglin Chen          | Optimization of feed locations for two feeds columns based on column grand composite curve                         |
| P1-100 | 62  | Idowu Adeyemi, Mohammad Abu Zahra, Inas Alnashef                           | Experimental study of the solubility of CO <sub>2</sub> in novel amine based deep eutectic solvents                |
| P1-101 | 232 | Jiyuan Zhang, Jie Shu, Lei Huang, Hao Wang, Jianning Ding                  | Energy management of PV-diesel-battery hybrid power system for island stand-alone micro-grid                       |

# Session II

# Poster presentations

## Poster session II

October 10, 13:00-13:40

| Poster ID | Paper ID | Author   | Paper title  |
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| P2-1      | 82       | Hanjie xiao, Yize Li, Mingyu Zhang, Hua Wang, Shibo Wang   | Study of the stochastic kinetic model of hydrolysis reaction of rapeseed oil in subcritical fluid  |
| P2-2      | 235      | Hanifrahmawan Sudibyo, Yano Surya Pradana, Thoriq Teja Samudra,  | Study of cultivation under different colors of light and growth kinetic study of <i>Chlorella zofingiensis</i> Dönn for biofuel production   |
| P2-3      | 237      | Yano Surya Pradana, Hanifrahmawan Sudibyo, Eko Agus Suyono, Indarto, Arief Budiman                                       | Oil algae extraction of selected microalgae species grown in monoculture and mixed cultures for biodiesel production   |
| P2-4      | 473      | Jinxing Long, Xiong Zhang, Cheng Lv, Sijie Liu, Changhua Song, Xuehui Li   | Selective synthesis of biogasoline precursor from renewable platform molecules at ambient temperature  |
| P2-5      | 504      | Marcin Dębowski  | Concept of a technological system for microalgae biomass production with the use of effluents from fermentation tanks  |
| P2-6      | 473      | Jinxing Long, Xiong Zhang, Cheng Lv, Sijie Liu, Changhua Song, Xuehui Li   | Selective synthesis of biogasoline precursor from renewable platform molecules at ambient temperature  |
| P2-7      | 130      | Junling Tu, Mingyue Ding, Tiejun Wang, Longlong Ma, Yongjun Xu, Shimin Kang, Gang Zhang                                  | Direct conversion of bio-syngas to gasoline fuels over a $\text{Fe}_3\text{O}_4/\text{C}$ Fischer-Tropsch synthesis catalyst   |
| P2-8      | 495      | Xiao-Sen Li, Zhi-Ming Xia, Zhaoyang Chen, Jing Cai   | Hydrate-based capture of acidic gases for clean fuels with new synergic additive   |
| P2-9      | 509      | Marcin Zieliński   | Hydrothermal depolymerization of Virginia fanpetals ( <i>Sida hermaphrodita</i> ) biomass with the use of microwave radiation as a potential method for substrate pre-treatment before the process of methane fermentation |
| P2-10     | 725      | Senqing Fan, Zeyi Xiao, Minghai Li, Sizhong Li   | Ethanol fermentation coupled with pervaporation by energy efficient mechanical vapor compression   |
| P2-11     | 716      | Haozhong Huang, Qingsheng Liu, Qingxin Wang  | The potentials for improving combustion performance and emissions in diesel engines by fueling n-butanol/diesel/PODE3-4 blends   |
| P2-12     | 259      | Kunio Yoshikawa, Arif Darmawan, Koji Tokimatsu, Muhammad Aziz, Flabianus Hardi   | Enhanced process Integration of hydrothermal liquefaction, gasification and combined cycle: modeling and simulation using Aspen Plus   |
| P2-13     | 462      | Zhu Jinjiao, Haijun Chen, Yuezhao Zhu, Yang Li, Wan Long   | Pilot test of co-pyrolysis characteristics of wet sewage sludge and sawdust in an external heating moving bed  |
| P2-14     | 463      | Chen Zeqing, Wan Long, Haijun Chen, Yuezhao Zhu, Cui Qun, Cheng Ruijia   | Experimental performance of Tar Removal by a Quench coupled with adsorption technology   |
| P2-15     | 541      | Sung Pil Yoon, Mariagiovanna Minutillo, Alessandra Perna, Elio Jannelli, Viviana Cogolotti, Suk Woo Nam, Byeong Wan Kwon | Coupling of biomass gasification and SOFC – Gas Turbine Hybrid System for small scale cogeneration applications  |
| P2-16     | 787      | Hao Cheng  | Effect of Copper Oxide on fast pyrolysis of enzymatic/mild acidolysis lignin   |
| P2-17     | 868      | Ming Lei, Shubin Wu, Chao Liu, Jiajin Liang  | Revealing the pyrolysis chemistry of Biphenyl-type lignin model  |

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| P2-18 | 890 | Li Guo, Ming Zhai   | Numerical simulation on steam gasification of a single biomass char particle                                       |
| P2-19 | 929 | Shuzhong Wang   | Experimental and numerical investigations on gasification of biomass briquette in a sectional heating gasifier     |
| P2-20 | 663 | Jiuchun Jiang, Zhisong Lin, Zeyu Ma, Zhanguo Wang, Qun Ju, Caihui Zheng                                       | Electrochemical impedance spectra for lithium-ion battery ageing considering the rate of discharge ability         |
| P2-21 | 228 | Dan Sui   | Geothermal energy extraction from abandoned wells  |
| P2-22 | 285 | Yuexia Pang, Yongxiu he, Han Shu  | The synergy mechanism of promoting renewable energy consumption in China   |
| P2-23 | 393 | Liew Hui Fang, Syed Idris Syed Hassan, Rosemizi Abd Rahim, Muzamir Isa  | Exploring piezoelectric for sound wave as energy harvester   |
| P2-24 | 436 | Shu Yu Yang   | Optimization of power management strategy for parallel air-fuel hybrid system                                      |
| P2-25 | 583 | Jiahong Liu, Weiwei Shao  | Mutual adaptability of renewable energy and water-supply systems in islands  |
| P2-26 | 661 | Zsuzsanna Czegeny, Liang Wang, Eszter Barta-Rajnai, Øyvind Skreiberg, Morten Grønli, Emma Jakab               | Biomass charcoal properties changes during storage   |
| P2-27 | 662 | Liew Hui Fang, Syed Idris Syed Hassan, Rosemizi Abd Rahim, Muzamir Isa  | Characterization of different dimension piezoelectric transducer for sound wave energy harvesting                  |
| P2-28 | 735 | Pietro Elia Campana, Yang Zhang, Jinyue Yan, Anders Lundblad, Hailong Li                                      | An open-source platform for simulation and optimization of clean energy technologies                               |
| P2-29 | 743 | Fabrizio Leonforte, Niccolò Aste, Claudio Del Pero  | Water PVT collectors performance comparison  |
| P2-30 | 910 | Hao Huang, Hao Jutao, Zhao Bo, Zhao Xinhua, Li Meng, Jiahong Liu, Weiwei Shao                                 | Application of epoxy mortar in anti-erosive protection of the spillway on the Xin'anjiang hydropower station plant |
| P2-31 | 917 | Hao Huang, Jutao Hao, Bo Zhao, Xinhua Zhao, Meng Li, Jingwei Li, Jiahong Liu                                  | Experimental study on low temperature tensile properties of epoxy mortar in hydropower project                     |
| P2-32 | 957 | Guodong Cui, Liang Zhang, Shaoran Ren   | Combined effects of geochemical reactions and salt precipitation on geothermal exploitation in the CPG system      |
| P2-33 | 146 | Tang Ruoli, Fang Yanjun, Zhou Wu  | Topological structure of large-scale photovoltaic array and its MPPT controlling method                            |
| P2-34 | 384 | Bibin Huang, Qionghui Li, Fei Gao   | Optimal planning of high penetration distributed photovoltaic with considering grid reinforcement                  |
| P2-35 | 833 | Zhicong chen, Yue Wu, Lijun Wu, Peijie Lin, Shuying Cheng, Peimin Lu  | An intelligent fault diagnosis approach for PV array based on SA-RBF kernel extreme learning machine               |
| P2-36 | 960 | Peishi Wu, Xiaoming Ma, Junping Ji, Yunrong Ma  | Review on life cycle assessment of greenhouse gas emission profit of solar photovoltaic systems                    |
| P2-37 | 196 | Ning Wang, Guoying Xu   | Thermal properties and solar collection characteristics of oil-based nanofluids with low graphene concentration    |
| P2-38 | 767 | Canming He  | Thermal performances of two stage molten salt steam generator  |
| P2-39 | 29  | Trevor Kwan, Xiaofeng Wu  | TEG maximum power point tracking using an adaptive duty cycle scaling algorithm                                    |
| P2-40 | 59  | Yu-Fong Huang   | Microwave torrefaction of leucaena to produce biochar with high fuel ratio and energy return on investment         |
| P2-41 | 234 | Hanifrahmawan Sudiby, Akmal Irfan Majid, Yano Surya Pradana, Wiratni Budhijanto, Deendarlianto, Arief Budiman | Technological evaluation of municipal solid waste management system in Indonesia                                   |

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| P2-42 | 464 | Ren Tianqi, Wu Kai, Haijun Chen, Yuezhao Zhu   | The experimental research on the mixed burning of whole tires and biomass in the reverse burning fixed-bed gasifier  |
| P2-43 | 481 | Na Wang, Xiang Ling, Hao Peng, Jingqi Kang, Minghao Xu   | Experimental investigation of slag particles of ligament mode disintegration in spinning disk atomizing  |
| P2-44 | 496 | Chung-Ta Chang, Chin-Tsan Wang, Chen-Hao Wang, Wen-Tong Chong  | Effect of oxygen gradient on the organic degradation and power performance of single sediment microbial fuel cells   |
| P2-45 | 523 | Zoltán Sebestyén, Eszter Barta-Rajnai, János Bozi, Marianne Blazsó, Emma Jakab, Norbert Miskolczi, Zsuzsanna Czegeny | Catalytic pyrolysis of biomass and plastic mixtures using HZSM-5 zeolite   |
| P2-46 | 839 | Fábio Codignole Luza, Stefano Cordinera, Alessandro Mannia, Vincenzo Mulone, Vittorio Rocco                          | Anaerobic digestion of liquid fraction coffee grounds at laboratory scale: evaluation of the biogas yield  |
| P2-47 | 845 | Jingjing Chen, Chunyan Ma, Xiaoyan Ji, Xiaohua Lu, Changsong Wang  | Mechanism study of waste heat recovery from slurry by surface scraped heat exchanger   |
| P2-48 | 887 | Chin-Tsan Wang, Tsung-Hung Lin, Yu-Jen Chen, Wen-Tong Chong  | Using Xanthan 80 (sf) on enhancing the performance of solid microbial fuel cell  |
| P2-49 | 891 | Hailong Li   | Biomethane production via anaerobic digestion and biomass gasification   |
| P2-50 | 935 | Fang-Chih Chang, Ming-Jer Tsai, Yen-Jung Lu  | Forest waste derived fuel with waste cooking oil   |
| P2-51 | 498 | Wong Kok Hoe   | Design and early development of a novel cross axis wind turbine  |
| P2-52 | 990 | Shiyu Ji, Bin Chen   | LCA-based energy-water-land nexus of a typical wind farm in China  |
| P2-53 | 233 | Hanifrahmawan Sudibyo, Zata Lini Shabrina, Lenny Halim, Wiratni Budhijanto   | Mathematical modelling and statistical approach to assess the performance of anaerobic fixed bed reactor for biogas production from Piyungan sanitary landfill leachate  |
| P2-54 | 431 | Xinghua Zhang, Wenwu Tang, Qi Zhang, Tiejun Wang, Longlong Ma  | Hydrocarbon fuel production from lignin-derived phenolcs over Ni/SiO <sub>2</sub> catalyst   |
| P2-55 | 499 | Yuping Li, Lungang Chen, Xinghua Zhang, Qi Zhang, Tiejun Wang, Songbai Qiu, Jin Tan, Kai Li, Longlong Ma             | Process and techno-economic analysis of bio-jet fuel-range hydrocarbon production from lignocellulosic biomass via aqueous phase deconstruction and catalytic conversion |
| P2-56 | 30  | Changan Wang, Guangyu Li, Pengqian Wang, Yongbo Du, Xuan Liu, Wufeng Chen, Defu Che                                  | Ash deposition and alkali metal migration during Zhundong high-alkali coal gasification  |
| P2-57 | 363 | Shuchun Li   | Optimization for a grid-connected hybrid PV-wind-retired EV battery microgrid system   |
| P2-58 | 691 | Shuzhong Wang, Jianjun Cai, Cao Kuang  | A modified random pore model for carbonation reaction of CaO-based limestone with CO <sub>2</sub> in different calcination-carbonation cycles                            |
| P2-59 | 577 | Qunli Zhang, Chaohui Yin, Yinlong Li   | Simulation Research on the thermal performance of the cooling ceiling embedded with phase change material for energy storage   |
| P2-60 | 672 | Zijian Fu, Xin Jin, Li Junqiu  | Rule based energy management strategy for a battery/ultra-capacitor hybrid energy storage system optimized by pseudospectral method                                      |
| P2-61 | 572 | Jinkai Li, Liutang Gongb, Jin Zhang, Lei Zeng, Zhenling Chen   | Energy security, food security and the development of biomass energy--a theoretical model and its paths choice   |
| P2-62 | 150 | Sijia Liu, Guorui Zhai, Zhanguo Wang, Weige Zhang, Zeyu Ma   | State of energy estimation of lithium titanate battery for rail transit application  |
| P2-63 | 603 | Li Zhi   | State of charge estimation for Li-ion battery based on extended Kalman filter  |
| P2-64 | 618 | Qun Ju, Yan Liang, Weige Zhang, Caiping Zhang, Linjing Zhang, Jiuchun Jiang  | An equivalent circuit model for lithium-sulfur batteries   |

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