

Poster Session 1  
Monday/ June 29<sup>th</sup>

**P1-001    Crystal Structures of Heavily Na-loaded LSX Zeolites in Insulating and Metallic States; Unusual Na Distribution in Micropore**

Takuji IKEDA, Takehito NAKANO, Yasuo NOZUE

**P1-003    Microporous and Mesoporous Property of Octahedra based W-M-O (M=Ti, Zr, Nb, Ta) Complex Metal Oxide and their Catalytic Activity as Solid Acid**

Toru MURAYAMA, Jun HIRATA, Wataru UEDA

**P1-004    Synthesis of Highly Stabilized Core-shell Structured Hybrid of Layered Silicate and Metal Nanoparticles**

Miharu EGUCHI

**P1-005    Hydrothermal-synthesis of B-ITQ-2 Analogous**

Hong ZHAO, Toshiyuki YOKOI, Junko N. KONDO, Takashi TATSUMI

**P1-006    Anisotropic Raman Scattering Study of Re-doped 2H-MoSe<sub>2</sub> Layered Semiconductors**

Yueh-Chien LEE, Sheng-Yao HU, Kwong-Kau TIONG, Ying-Sheng HUANG,

**P1-007    Band-Edge-Tunable Layered Nanosheets as Highly Efficient Photocatalysts for Hydrogen Evolution**

Kazuhiko MAEDA, Miharu EGUCHI, Takayoshi OSHIMA

**P1-008    Functionalised LDHs: Organic-inorganic Clays to Catalytic and Adsorbent Applications**

Enrique LIMA, Ariel GUZMAN, Carlos FELIPE

**P1-010    Simple Synthesis of Nanoporous Carbons with a High Surface Area and Their Electrochemical DoubleLayer Capacitance**

Takahito MITOME, Yoshiaki UCHIDA, Norikazu NISHIYAMA

**P1-013 Synthesis and Characterization of Three-Dimensionally Interconnected Macroporous Al<sub>2</sub>O<sub>3</sub> with High Surface Area**

Weiya YANG

**P1-014 Spontaneous Formation of Functionalized Helical Silica Nanofibers with Coaxial Mixed Mesostructures for Selective Inclusion and Fabrication of Helical PtCo Nanowires Showing Unique Geometry-Dependent Magnetism**

Nien-Chu LAI, Yu-Tien SHEN, Sz-Chian LIOU, Ming-Wen CHU, Chia-Min YANG

**P1-016 Preparation of 3D Porous Nanocarbon Materials Using USY Zeolite as a Hard Template**

Jana JANOSCOVA, Petr SAZAMA, Jiri RATHOUSKY, Libor BRABEC, Galina SADOVSKA

**P1-017 Preparation of Activated Carbon from Palm Kernel Shell and Biochar or Biocoal from Leucaena in Molten Salts**

Fen-Tair LUO

**P1-018 Enhanced Photocatalytic Activity of Mesostructure TiO<sub>2</sub> Spheres by Doping with Cu for Emerging Pollutants Degradation**

Sofia Ya Hsuan LIOU, Chin-Jung LIN Wen-Ta YANG

**P1-019 Physical and Catalytic Properties of Porous MoO<sub>x</sub> obtained by H<sub>2</sub> Reduction of Pt/MoO<sub>3</sub>**

Takashi MATSUDA, Kenji KAWAWADA, Tomoya OHNO

**P1-020 Low Temperature Synthesis of Microporous Titanate Nanofiber by Using Amorphous Titania with a High Surface Area**

Misaki OTA, Bram DWIJAYA, Yoshiaki UCHIDA, Norikazu NISHIYAMA

**P1-022 Synthesis and Electrochemical Properties of Composite of Li<sub>2</sub>CoSiO<sub>4</sub> and Ordered Mesoporous Carbon**

Yoichi OBINATA, Hideaki YOSHITAKE

**P1-023 Influence of Au Nanoparticles Decorated Glassy Carbon Electrodes on the Catalytic Electro-oxidation of Cellulose**

Yasuhito SUGANO, Narendra KUMAR, Johan BOBACKA, Ari IVASKA, Jyri-Pekka MIKKOLA

**P1-024 Zeolite Adsorbents for the Removal of Petroleum Products from Solid Surface**

Lidia BANDURA, Wojciech FRANUS

**P1-025 Self-Humidifying Proton-Exchange Membrane from Confinement of PFSA in Narrow Spaces Defined by Microporous Zeolites**

Viola SIM, Wei HAN, King Lun YEUNG

**P1-026 The Characteristics and the Effect of ZSM-5 Additive to Increase Light Olefin Fraction in Fluid Catalytic Cracking (FCC)**

Shigenori HAYASHI, Shintaro YABE, Yuji SHIRAHAMA

**P1-027 Synthesis of Zeolitic Material from Waste Stone Cake of Green Tuff Region in Japan**

Takaaki WAJIMA

**P1-030 Modifying Texture and Structure of Zeolites Derived from Layered Precursors**

Trees De BAERDEMAEKER, Mathias FEYEN, Ulrich MULLER, Bilge YILMAZ, Feng-Shou XIAO, Weiping ZHANG

**P1-031 CTAB-based Template on the Synthesis of High-Surface-area Mesoporous Fibrous Silica (KCC-1)**

Erna FEBRIYANTI, Rino R. MUKTI, Veinardi SUENDO, Sugeng TRIWAHYONO, ISMUNANDAR

**P1-034 Synthesis of Size-controlled ZIF-8 Nanocrystals by Addition of Nonionic Surfactant in Water Solution**

Yaqi ZHANG, Miho HASEGAWA, Yuta NAKASAKA, Canan GUCUYENER, Teruoki TAGO, Jorge GASCON, Freek KAPTEIJN, Takao MASUDA

**P1-036 Synthesis of Hydrophobic Silicate-1 Using Fluoride Media Under Microwave Irradiation**

Mohammed A. SANHOOB, Oki MURAZA

**P1-037 Charge Density Mismatch Synthesis of MEI- and BPH- Type Zeolites in the TEA<sup>+</sup>-TMA<sup>+</sup>-Li<sup>+</sup>-Sr<sup>2+</sup> Structure-directing Agent System**

Sang Hyun AHN, Min Bum PARK, Nak Ho AHN, Suk Bong HONG

**P1-039 Effect of Various Synthetic Parameters on Phase and Crystallinity of SAPO-34 Molecular Sieve**

Rajib BANDYOPADHYAY, Sunita BAROT, Maaz NAWAB

**P1-040 Synthesis of Valuable Aluminosilicate Materials by Hydrothermal Conversion of K-feldspar in Various Alkaline Solutions**

Jing YANG, Zheng LUO, Hongwen MA, Cheng ZENG, Changjiang LIU, Yaren GUO

**P1-041 Interlayer Expansion Extended to Me-bridges: Placing the Active Center in a Framework Silicate Precisely**

Hermann GIES, Bilge YILMAZ, Trees DEBAERDEMAEK, Ulrich MUELLER, Mathias FEYEN, Dirk DEVOS, FengShou XIAO

**P1-042 Cracking Performance of Zeolite Al-UTD-1 Synthesized using Phosphazene as Organic Structure Directing Agent**

Raquel SIMANCAS, Maria Teresa NAVARRO, Angel CANTIN, Jorge SIMANCAS, Djamal, DARI, Jose Alejandro VIDAL-MOYA, Jose Luis JORDA, Teresa BLASCO, Joaquin MARTINEZ-TRIGUERO, Fernando REY

**P1-044 In-situ, Stepwise Transformation of Mesoporous Silica Spheres into MCM-22 Zeolite Spheres**

Zhendong WANG, Bin ZHANG, Yueming LIU, Mingyuan HE, Peng WU, Weimin YANG

**P1-045    Synthesis of Ti-CHA Zeolite with Enhanced Thermal Stability by Hydrothermal Conversion of Ti-CHA Zeolite**

Tomoka TAKATA, Yusuke KUNITAKE, Nao TSUNOJI, Masahiro SADAKANE, Tsuneji SANO

**P1-046    Synthesis of Metal-incorporated (M= W, Ni, Cu, Cr) Mesoporous Nb<sub>2</sub>O<sub>5</sub> Photocatalysts and Its Application in Photocatalytic Water Splitting for Hydrogen Production**

Hsin yu LIN, Yi jain XIE

**P1-048    Influence of Additives on the Synthesis of UiO-66**

Naoki TAKAYA, Mayo YAMAGUCHI, Manabu MIYAMOTO, Shigeyuki UEMIYA, Yasunori OUMI

**P1-049    Hydrothermal Stability of La-, Ce- and H-MTT Zeolites in Hot Aqueous Medium**

Idris A. BAKARE, Oki MURAZA, Teguh KURNIAWAN, Zain H. YAMANI, Emad SHAFEI, Ashok PUNETHA, Ki-Hyouk CHOI

**P1-050    Enhanced Catalytic Performance of Dealuminated MCM-68 Zeolite in DTO Reaction**

Sungsik PARK, Takuya FUKUOKA, Satoshi INAGAKI, Yoshihiro KUBOTA

**P1-051    Improving Catalytic Performance of MCM-49 Zeolite by Introducing Hierarchical Porosity**

Ningning GAO, Sujuan XIE

**P1-053    Thermal Analysis of Dealuminated Philippine Natural Mordenite-type Zeolite**

Maria Cecilia M. ANGUB, Maricris C. CUNANAN, Andrew C. DONO, Rinlee Butch M. CERVERA

**P1-054 Al Distribution and Siting of Divalent Cations in TNU-9 Zeolite**

Robert KARCZ, Veronika PASHKOVA, Edyta TABOR, Petr KLEIN, Stepan SKLENAK, Jiri DEDECEK

**P1-055 Synthesis and Characterization of Hierarchical Mn/ZSM-5 and Its Application as Catalyst for Decomposition of Cellulose from Indonesian Rice Husk to Levulinic Acid**

Yuni K. KRISNANDI, Noer F. ANTRA, Anastasia AGNES, Suwardiyanto SUWARDIYANTO, Dita A. NURANI, Russell F. HOWE

**P1-056 Textural Characteristic of Zeolites Synthesized from Different Precursors for CO<sub>2</sub> Capture**

Rafal PANEK, Ewa WISLA-WALSH, Magdalena WDOWIN, Pawel GARA, Wojciech FRANUS

**P1-057 Fe<sub>3</sub>O<sub>4</sub>@MgAl-NO<sub>3</sub> Layered Double Hydroxide as Magnetically Separable Phosphate Sorbent From Aqueous Solution**

Paulmanickam KOILRAJ, Keiko SASAKI

**P1-059 A Pt/CeO<sub>2</sub>-ZrO<sub>2</sub>-Bi<sub>2</sub>O<sub>3</sub>/SBA-16 Catalyst for 1,4-dioxane Abatement in Waste Water**

Toshiyuki MASUI, Pil-Gyu CHOI, Takanobu OHNO, Nashito FUKUHARA, Nobuhito IMANAKA

**P1-060 One-pot Knoevenagel Condensation and Phospha-Michael Addition over Zeolitic Imidazolate Framework**

Takashi TOYAO, Yu Horiuchi, Masaya MATSUOKA

**P1-061 Synthesis of N/RHA/TiO<sub>2</sub> Composite Photocatalysts and Its Visible-light Performance**

Qingge FENG, Siying QIN

**P1-062 Unprecedented Acid and Redox Activity of Template-free Al-rich BEA Zeolite**  
Petr SAZAMA, Lukasz MOKRZYCKI, Blanka WICHTERLOVA, Galina SADOVSKA, Vasile I. PARVULESCU, Jiri DEDECEK, Jana JANOSCOVA, Petr KLEIN

**P1-063 Supercritical Sovolthermal Preparation of Cu<sub>x</sub>O/TiO<sub>2</sub> with Visible-light Antibacterial Property**

Yuning HUO, Jiahui ZHONG, Hexing LI

**P1-064 Platinum Nanoparticles Imbedded Amine-Functionalized MIL-101(Cr) as a Durable Photocatalyst for Hydrogen Production from Water**

Meicheng WEN, Kohsuke MORI, Yasutaka KUWAHARA, Hiromi YAMASHITA

**P1-065 Hydrodesulfurization Properties of Na-form ZSM-5-supported Rhodium Phosphide Catalysts**

Ayaka SAWADA, Yasuharu KANDA, Masatoshi SUGIOKA, Yoshio UEMICHI

**P1-066 Synthesis of Zr-based MOF with Porphyrin Units and Its Application for Photocatalytic Hydrogen Production under Visible-light Irradiation.**

Kenta MIYAHARA, Takashi TOYAO, Yu HORIUCHI, Masaya MATSUOKA

**P1-067 Conversion of Ethanol into 1,3-Butadiene over Metalosilicate Beta Zeolite Catalysts**

Yong WANG, Toshiyuki YOKOI, Takashi TATSUMI

**P1-069 Liquid Phase Hydroalkylation of Benzene over Pd/Y-Zeolite: Effect of Zeolite Acidity**

S A Kishore KUMAR, Shivanand M PAI, Bharat L NEWALKAR, Kamal K PANT

**P1-071 Comparative Study of Organic Acid Esterification Catalyzed by Amberlyst-15 and Amberlyst-36 Cation Exchange Resin**

Suriya PANKOSOL, Panarat RATTANAPHANEE

**P1-073 Cooperative Effects of Secondary Mesoporosity and Spatial Distribution of Acid Site in Pt/SAPO-11 on *n*-Dodecane Hydroisomerization Selectivity**

Myoung Yeob KIM, Kyungho LEE, Minkee CHOI

**P1-079 Fabrication of Spherical Hollow Silica Encapsulating TiO<sub>2</sub> Nanoparticles with an Improved Adsorption Property and Photocatalytic Activity**

Yuki SUMIDA, Yasutaka KUWAHARA, Hiromi YAMASHITA

**P1-081 Synthesis of Nano-sized MFI Metallosilicate and Their Catalytic Performance on Methanol to Olefins Reaction**

Taichi TANIGUCHI, Keitaro YONETA, Yuta NAKASAKA, Teruoki TAGO, Takao MASUDA

**P1-083 Facile Synthesis of Hierarchical Fe/ZSM-5 Composite Modified by Nitrogen-containing Organics with Superior Catalytic Properties in Phenol Degradation**

Lei LUO, Chengyi DAI, Anfeng ZHANG, Chunshan SONG, Xinwen GUO

**P1-084 Effect of Silicalite-1 Coating on MFI Type Galloaluminosilicates to Product Selectivity in Aromatization of Light Alkenes**

Manabu MIYAMOTO, Jun KAMADA, Yasunori OUMI, Shigeyuki UEMIYA

**P1-085 Isomerization of 2, 7-Diisopropylnaphthalene with Zeolite Catalysts for PEN Production**

Young Hye LEE, Jae Sung LEE

**P1-086 Operando UV/Vis Spectroscopy Reveals the Temperature Dependency of the Active and Deactivating Species during Methanol-to Olefins Conversion over H-SSZ-13**

Javier RUIZ-MARTINEZ, Elena BORODINA, Florian MEIRER, Ines LEZCANO-GONZALEZ, Mohamed MOKHTAR, Abdullah M. ASIRI, Shaeel A. AL-THABAIDI, Suliman N. BASAHEL, Bert M. WECKHUYSEN

**P1-087 Isopropylbenzene Disproportionation over Large-Pore Zeolites**

Seung Hyeok CHA, Kyoung Hwan LEE, Youngchu BYUN, Suk Bong HONG

**P1-089 Effect of Ti Addition to Cu/HZSM-5 Catalyst on Gas-Phase Oxidation of Benzene**

Masahiro TACHIBANA, Atsushi OKEMOTO, Keita TANIYA, Yuichi ICHIHASHI, Satoru NISHIYAMA

**P1-090 Isomerizaiton of THTCPD Using Supported Ionic Liquid Catalysts**

Dae Hyun KIM, Jeong Sik HAN, Tae Soo KWON, Jong Ki JEON, Jin Heong YIM

**P1-093 Nanocomposite Photocatalyst Containing Tantalum-Based Pyrochlore and Indium hydroxide Showing High and Stable Activities for Water Splitting and Carbon Dioxide Reduction**

Meng-Chun HSIEH, Wei-Guang LIU, William A. GODDARD, Chia-Min YANG

**P1-094 Improved Hydrogen Storage Capacity by Hydrogen Spillover and Fine Structural Characterization of MIL-102 Metal Organic Frameworks**

Abhijit Krishna ADHIKARI, Chao-Lung CHIANG, Kuen-Song LIN

**P1-095 Support and Water Vapor Effects on Oxidative Removal of Ethylene over Pt Nanoparticles on Mesoporous Silica**

Takuro YOKOYA, Kenji HARA, Manchien CHAO, Chuanxia JIANG, Atsushi FUKUOKA

**P1-096 Magnesia Nanoparticles Confined in the Ordered Mesoporous Alumina for Temperature-swing CO<sub>2</sub> Capture**

Vishwanath HIREMATH, Hanyeong LEE, Jeong Gil SEO

**P1-099 Water Vapor Adsorption on Zeolites from Very Low Pressure for the Characterization of Surface Properties**

Akira ENDO, Marie SHIMOMURA, Yoshihiro KAMIMURA, Makoto OKAWA, Masayuki YOSHIDA

**P1-100 Analysis of the CO<sub>2</sub> Removal Possibility from the Exhaust Gases onto Na-X Zeolite**

Magdalena WDOWIN, Rafal PANEK, Paweł BARAN, Katarzyna ZAREBSKA, Wojciech FRANUS

**P1-101 Adsorption of Heavy Metals (Pb<sup>2+</sup>, Cu<sup>2+</sup>, Cd<sup>2+</sup>) from Phosphate Acid by Natural Zeolite and Chitosan Modified Zeolite**

Marzhan KUSSAINOVA, Raisa CHERNYAKOVA, Umirzak JUSSIPBEKOV, Hamdi TEMEL, Salih PASA

**P1-102 Desorption and Enrichment of Tritiated Water on Organic Functionalized SBA-15**

Akira TAGUCHI, Yuki KATO, Yuji TORIKAI

**P1-104 Recovery of Butanol from Model ABE Fermentation Broths Using Structured Adsorbents**

Abrar FAISAL, Ming ZHOU, Jonas HEDLUND, Mattias GRAHN

**P1-105 Evaluation of Single-layer Resistance in Multilayered Ceramic-Supported Pd-based Membranes for Hydrogen Permeation**

Alessio CARAVELLA

**P1-106 Methanol Permeation Properties through Na-ZSM-5 Membrane under Pressurized Conditions**

Daiki YOSHIDA, Masahiro SESIIMO, Masahiko MATSUKATA

**P1-107 Propylene/Propane Separation Properties through FAU-type Zeolite Membrane**

Masahiko MATSUKATA, Yasuhito SASAKI, Motomu SAKAI, Taisuke TOMONO

**P1-108 Application of High Silica CHA Membrane MSM-1 to Gas Separation**

Miki SUGITA, Mikio HAYASHI, Takahiko TAKEWAKI

**P1-109 Scale-up of High-flux MFI Membranes**

Simon BARNES, Han ZHOU, Allan HOLMGREN, Johanne MOUZON, Jonas HEDLUND

**P1-111 Effect of H<sub>2</sub>O Composition in the Synthesis Gel on Separation Properties of SAPO-18 Membrane**

Sonosuke ISHIGURO, Masahiro SESHIMO, Masahiko MATSUKATA

**P1-112 Facile Synthesis of Pure-silica MFI Zeolite Membranes for Gas Separations**

Heng Ta CHIEN, Dun Yen KANG

**P1-113 Synthesis of High-performance NaY Zeolite Membranes by Microwave Heating in Fluoride Media**

Na HU, Tian GUI, Yuqin LI, Rongfei ZHOU, Xiangshu CHEN, Hidetoshi KITA

**P1-114 High Flux High-silica CHA Membranes for CO<sub>2</sub> Separation**

Nikolay KOSINOV, Canan GUCUYENER, Jorge GASCON, Freek KAPTEIJN, Emiel HENSEN

**P1-117 Reactive Intermediates Formed in Dioxygen-activated Cu&ndash;ZSM-5 with One or Two Water Molecule: A Computational Study**

Yuuki HIROSE, Takashi YUMURA, Yasuhige KURODA, Takashi WAKASUGI, Hisayoshi KOBAYASHI

**P1-118 A Density Functional Theory Calculation on the dissociation mechanism of NO catalyzed by Cu<sub>4</sub>-ZSM-5**

Chen-Hao YEH, Jia-Jen HO

**P1-119 Conversion of CO<sub>2</sub> and C<sub>2</sub>H<sub>6</sub> to Propanoic Acid on an Iridium-modified Graphene Oxide Surface — a Quantum-Chemical**

Chih-Chun CHEN, Chun-Chih CHANG, Jia-Jen HO

Poster Session 2  
Wednesday/ July 1st

**P2-001 Encapsulating Photoluminescent Materials in Zeolites. Crystal Structure of Fully Dehydrated, Largely Eu<sup>3+</sup>-Exchanged Zeolite Y (Si/Al = 1.69)**

Cheol W. KIM, Jong J. KIM, Karl SEFF, Nam H. HEO

**P2-002 Catalytic Linear Alkylbenzene Synthesis over Zeolitic Material**

Siang-Ting YEN, Jhao-Jyun WANG, Tseng-Chang TSAI

**P2-003 Sequential Modification of Montmorillonite Using DDAC and BDOAC for Adsorption of Perchlorate**

Akihiro INOUE, Wuhui LUO, KWADWO OSSEO-ASARE, Tsuyoshi HIRAJIMA, Keiko SASAKI

**P2-004 Swelling and Exfoliation Behaviors of Novel Layered Silicates HUS-2 and HUS-7 and Its Application to Catalyst Precursor**

Yuya YAGENJI, Nao TSUNOJI, Yusuke IDE, Masahiro SADAKANE, Tsuneji SANO

**P2-005 Fabrication of Nanozyme Based Amperometric Sensor for Ultra-trace Determination of Bio Molecules**

Naeem AKHTAR, Sherif A. EL-SAFTY

**P2-006 Analysis of the Interlayer Expanded Zeolite Zn-IEZ-RUB-36**

Isabel GROSSKREUZ, Hermann GIES, Sandra GRABOWSKI

**P2-007 Interlayer Modification with Pt Nanoclusters and Aater Splitting Reactivity of Restacked KCa<sub>2</sub>Nb<sub>3</sub>O<sub>10</sub> Nanosheets**

Takayoshi OSHIMA, Osamu ISHITANI, Kazuhiko MAEDA

**P2-008 Synthesis of Mesoporous Materials with Bimodal Pores from Layered Perovskite Type K<sub>2</sub>NbO<sub>3</sub>F**

Masataka OGASAWARA, Yusuke KOBAYASHI, Shota NAKAJIMA, Sumio KATO

**P2-010 Design of Mesoporous Sensor/Captor for Optical Recognition and Sequestration of Au(III) Ions from Urban Min**

Sherif A. EL-SAFTY, Emad A ELSHEHY, Mohamed A SHENASHEN

**P2-011 Structure Determination of Novel Aluminophosphate Synthesized using Diethylamine as Structure Directing Agent**

Sung June CHO, Joong Hyun KIM

**P2-012 Porous Zinc/Cobalt-based Metal Azolate Frameworks from Metal Nitrates and Imidazolates: Synthesis, Characterization, and N<sub>2</sub>/CO<sub>2</sub> Adsorption**

Chao-Lung CHIANG, Abhijit Krishna ADHIKARI, Kuen-Song LIN

**P2-014 Synthesis and Electrochemical Properties of Two Dimensional Highly Ordered Mesoporous Carbon/Graphene Nanocomposite for Electrochemical Double Layer Capacitors**

Kwang Bum KIM, Ho Seok KIM, Chang Wook LEE

**P2-015 Synthesis and Structural Diversity of Three Structural Isomeric Coordination Polymers Constructed by Benzene Dicarboxylate and Dipyridyl Ligand**

Chia-Wen CHENG, Szu-Yu KE, Hsiao-Shan CHIU, Yu-Wen WANG, Chih-Chieh WANG

**P2-016 Target Design and Synthesis of Copolymerized Porous Organic Frameworks (POFs) with High Stability and Exceptionally High Gas Storage Properties**

Cuiying PEI, PEI BEN, Shilun QIU

**P2-018 Fabrication of Mesoporous Co<sub>3</sub>O<sub>4</sub> from LP-FDU-12 via Nanocasting Route and Effect of Wall/Pore Size on Their Magnetic Properties**

Hong-Xiao JIN, Hong BO, Chi-Ya WANG, Ding-Feng JIN, Hong-Liang GE

**P2-019 Catalytic Efficiency of Co<sub>3</sub>O<sub>4</sub>/Multiwalled Carbon Nanotubes Modified Nickel Foam Electrode in Fuel Cell**

Diab K AHMED, Sherif A EL-SAFTY, G ABOUELMAGD

**P2-021 Strong Fluorescence from Silver-Loaded Zeolite Y and Its Characterization**

Erni JOHAN, Djoko MULYANTO, Satoru FUKUGAICHI, Yoshiteru ITAGAKI, Hiromichi AONO, Naoto MATSUE

**P2-022 Facile Synthesis of Hollow Mesoporous Silica Nanospheres with Thin Shell and Cubic *Ia3d* Structure for Biomedical Applications**

Chih-Yu LIN, Nien-Chu LAI, Chia-Min YANG

**P2-023 Effect of LiCl Aqueous Solutions on the Energetic Performances of Silicalite-1**

Ismail KHAY, Habiba NOUALI, Andrey RYZHIKOV, Severinne RIGOLET, T. Jean DAOU, Joel PATARIN,

**P2-025 Upgrading of Palm Biodiesel Fuel over Supported Palladium Catalysts**

Shih-Yuan CHEN, Lalita ATTANATHO, Takehisa MOCHIZUKI, Yohko ABE, Makoto TOBA, Yuji YOSHIMURA

**P2-026 Synthesis of Pure NaA Zeolites from Coal Fly Ashes for Removal of Ammonium from Aqueous Solutions**

Zhouqing JIANG, Jing YANG, Hongwen MA, Xi MA

**P2-027 Application of NMR Spectroscopy for Characterization of Porous Shaped Materials for Catalysis and Adsorption Applications**

Andrei-Nicolae PARVULESCU, Lena ARNOLD, Stefan MARX, Ulrich MUELLER, Frank STALLMACH

**P2-029 Improving Stability of Nanoscale HZSM-5 for Shape-selective Methylation of Toluene in a Pilot Plant**

Yiren WANG, Min LIU, Yi ZUO, Wei TAN, Jia MA, Chunshan SONG, Xinwen GUO

**P2-030 A Novel CrB-Type Binary Colloidal Crystal with an Interstratified Structure**

Yoshiyuki KURODA, Yasuhiro SAKAMOTO, Kazuyuki KURODA

**P2-031 FER/MOR Composite Zeolite Synthesis**

Xiuje LI, Sujuan XIE, Mingrun LI, Xiangxue ZHU, Zhiqiang YANG, Longya XU

**P2-032 Templateless Synthesis of Mesoporous and Hierarchically Macro-/Mesoporous Silica Spheres with Notable Structural Tunability and Complexity**

Kyungmin MIN, Minkee CHOI

**P2-033 Synthesis of Mesoporous MFI Zeolites using ZnO Nanoparticles as Template**

Koji MIYAKE, Mayuka YAMADA, Yusuke SUGIURA, Yoshiaki UCHIDA, Norikazu NISHIYAMA

**P2-034 Synthesis of Small Pore Silicoaluminophosphates Using Supramolecular Self-assembled OSDAs**

Raquel MARTINEZ-FRANCO, Angel CANTIN, Manuel MOLINER, Avelino CORMA

**P2-035 Hydrothermal Conversion of FAU Zeolite in the Presence of Various Tetraalkylphosphonium Cations as Structure-directing Agent**

Yoshitaka YAMASAKI, NaO TSUNOJI, Masahiro SADAKANE, Tsuneji SANO

**P2-036 OSDA (Organic Structure Directing Agent)-Free Zeolite Synthesis of CHA-type Zeolite from FAU-type Zeolite Phase Transition**

Yoko YAMAGUCHI, Shunji TSURUTA, Akira NAKASHIMA

**P2-037 Influence of Sodium Chloride Additive on Texture of the Amorphous Aluminosilicate Precursors of Mordenite**

Koji NISHI, Kenjiro SADAMORI, Shunsuke MINAMOTO, Natsumi KAMIYA, Yoshinobu YOKOMORI

**P2-038 Synthesis of Nanosized Silicalite-1 and Effect of Seeds and other Parameters during Synthesis**

Rajib BANDYOPADHYAY, Maaz NAWAB, Sunita BAROT

**P2-040 Effects of Synthesis Parameters on Zeolite 4A Crystallization by Hydrothermal Method**

Selcen TEMEL, Mahmut ATES, Pembe Hande OZ, Hansu Julide KOROGLU

**P2-041 Microwave-assisted Synthesis of NaX under Solvent-free Conditions**

Shangjing ZENG, Runwei WANG, Zongtao ZHANG, Shilun QIU

**P2-042 Synthesis of ZSM-11/ZSM-5 Zeolite Using 1,3-Cyclohexanedimethanamine as Template**

Yi LUO, Zhendong WANG, Na LI, Bin ZHANG, Hongmin SUN, Weimin YANG

**P2-045 Fabrication of PEDOT/PSS Micro-particle with Magnetite ( $\text{Fe}_3\text{O}_4$ ) Using a Microfluidic Droplet Devices**

Sang Woo LEE, Jong Seob CHOI, Su-Jung KIM, Kuk Young CHO, Jin-Heong YIM

**P2-046 Synthesis of LEV-Type Aluminosilicate Zeolite in Media Containing Fluoride Anions**

Hiroyuki IMAI, Masaya KATO, Naoto MAEDA, Kazusa TERASAKA, Xiaohong LI

**P2-047 Synthesis of Hierarchical Zeolite Using Gemini Surfactant as an Organic Template**

Yunxiang LI, Feifei GAO

**P2-048 Crystallization of MON-Type Aluminosilicate by Post-synthetic Treatment of – LIT-Type Aluminosilicate**

Takako NAGASE, Takuji IKEDA, Norihito HIYOSHI, Chie ABE, Koichi SATO

**P2-049 Post-Synthetic Modification of Redox-Active Porous Ionic Crystals**

Ryosuke KAWAHARA, Sayaka UCHIDA, Noritaka MIZUNO

**P2-050 Effect of Alkali-treatment on Catalytic Properties of Ti-MFI for  $\text{H}_2\text{O}_2$  Oxidation**

Masahiko MATSUKATA, Kentaro NAGASHIMA, Kosuke TAKAISHI

**P2-051 Alteration of Molecular Sieving Property of ZIF-8 Via Confinement of Ionic Liquids**

Yujie BAN, Yanshuo LI, Weishen YANG

**P2-052 Syntheses and Single Crystal Structures of  $Zr_{1.7}Tl_{5.4}Cl_{1.7}$ -A and  $Zr_{2.1}Tl_{1.6}Cl_{2.9}$ -A**

Joon Y. KIM, Nsanzimana J. M. VIANNEY, Chungwoo LEE, Karl SEFF, Nam H. HEO

**P2-053 Synthesis and Characterization of Intergrowth Zeolite Composite of LSX/A**

Supak TONTISIRIN

**P2-054 The Deactivation Mechanism of Micro-B-ZSM-5 in Methanol-to-Propene Conversion**

Wenhui LI, Min LIU, Chengyi DAI, Xinwen GUO

**P2-055 Characterization of MFI Membrane by  $N_2$  and Hydrocarbon Adsorption**

Kohei MATSUMOTO, Yuki IIJIMA, Masahiro SESHIMO, Masahiko MATSUKATA

**P2-056 Evaluation of Membrane Micro-Pore Volume Derived from Zeolite Crystal Structure Using Nitrogen Adsorption Method**

Masahiro SESHIMO, Yuki IIJIMA, Yuko KONISHI, Masayuki YOSHIDA, Masahiko MATSUKATA

**P2-057 Protein Adsorption Using Mesoporous Silica-Based Cation-Exchange Adsorbents: Frustules and Rice Husk Ashes**

Zhi-Yi ZHENG, Shing-Yi SUEN, Min-Ying WANG, Yu-Fen GUAN

**P2-058 Preparation of  $SiO_2$  and  $SiO_2-Al_2O_3$  Catalysts by Gel Skeletal Reinforcement and Analysis of Catalytic Cracking Reaction of N-Dodecane**

Atsushi ISHIHARA, Hiroaki OONO, Tadanori HASHIMOTO, Hiroyuki NASU

**P2-060 Immobilization of Ru Complexes on Organic Ligands in Periodic Mesoporous Organosilicas**

Nobuhiro ISHITO, Kenji HARA, Yoshifumi MAEGAWA, Shinji INAGAKI, Atsushi FUKUOKA

**P2-061 Selectively Catalytic Production of 5-Hydroxymethylfurfural from Fructose by Adjusting Catalyst Wettability**

Liang WANG, Xiangju MENG, Feng-Shou XIAO

**P2-062 Enhanced Performance in Catalytic Combustion of Toluene over Zeolite-Supported Platinum Catalyst**

Chunyu CHEN, Xiangju MENG, Feng-Shou XIAO

**P2-063 Enhanced Photocatalytic Properties of TiO<sub>2</sub>-Loaded Porous Silica with Hierarchical Macroporous and Mesoporous Architectures**

Takashi KAMEGAWA, Yasushi ISHIGURO, Hiromi YAMASHITA

**P2-064 Deposition of Carbon Layers on Pt Surface: Selective Dissociation of H<sub>2</sub> over O<sub>2</sub> on Hindered Pt Surface for Direct Synthesis of Hydrogen Peroxide**

Sunwoo YOOK, Minkee CHOI

**P2-065 SBA-15 supported Pt Nanoparticles as a Highly Efficient Catalyst for Catalytic Toluene Oxidation**

Ching-Shiun CHEN, Jia-Whuang WU

**P2-066 Ni-Exchanged AlSBA-15 Mesostructured Materials as Outstanding Catalysts for Ethylene Oligomerization**

Radu-Dorin ANDREI, Annie FINIELS, Francois FAJULA, Marcel Ionel POPA, Vasile HULEA

**P2-067 Direct Catalytic Dehydration of 1,3-Butanediol for 1,3-Butadiene over ZSM-5 Materials**

Fangli JING, Benjamin KATRYNIOK, Marcia ARAQUE, Franck DUMEIGNIL, Sebastien PAUL, Marc PERA-TITUS, Jean-Marc CLACENS, Floryan DECAMPO

**P2-068 Methane Conversion to Aromatics over Mo and Ga Modified H-AlMFI Catalyst Prepared by Hydrothermal Method**

Pradeep Kumar BUDDE, Sreedevi UPADHYAYULA

**P2-069 The Potential of Medium-Pore Zeolites for Improved Propene Yields from Catalytic Cracking**

Florian BAGER, Stefan ERNST

**P2-071 Evaluation of Resid Fluid Catalytic Cracking Catalysts: Comparison of Lab Deactivated Catalysts with Commercial Ecat**

Gnana Pragasam SINGARAVEL, Tony K JOSEPH, Abdulmajeed AL KATHEERI, Berthod MICHAEL

**P2-072 Hydrogen-Enriched Producer Gas Production form Biomass Gasification Using NiO/SBA-15**

Baowang LU, Yiwen JU, Katsuya KAWAMOTO

**P2-073 Fine Chemical Production from Corncob Catalytic Cracking**

Duangamol N. TUNGASMITA, Chomalee KASIBAN

**P2-074 Low-Temperature Oxidation of CO over Pd/TiO<sub>2</sub>/CeO<sub>2</sub>**

Atsushi SATSUMA, Masatoshi YANAGIHARA, Kaoru OSAKI, Yurina SAEKI, Heng LIU, Yuta YAMAMOTO, Shigeo ARAI, Junya OHYAMA

**P2-075 Kinetics of Catalytic Cracking of Naphtha's Representatives over ZSM-5 Zeolites for Light Olefins Selective Synthesis**

Ryota OHNAKA, Kenta MURAMOTO, Yuta NAKASAKA, Teruoki TAGO, Takao MASUDA

**P2-078 Silver Nanoparticles Supported on CeO<sub>2</sub>-SBA-15 by Microwave Irradiation Possessing Metal-Support Interaction and Enhanced Catalytic Activity**

Xufang QIAN, Piyanka VERMA, Yasutaka KUWAHARA, Kohsuke MORI, Hiromi YAMASHITA

**P2-079 Fe-Substituted MFI Zeolites with Different Acidic Properties for DTO Reaction**

Hiroki KOBAYASHI, Masafumi NAKAYA, Kiyoshi KANIE, Atsushi MURAMATSU

**P2-081 Aerobic Oxidation of Alkyl Aromatics over PrAlPO-5 Catalysts**

B. SUNDARAVEL, V. MURUGESAN

**P2-083 Catalytic Properties of ZSM-5 Zeolite Nanoparticles Obtained via Mechanochemical and Chemical Modifications**

Satoshi INAGAKI, Shoma SHINODA, Shunsuke HAYASHI, Toru WAKIHARA, Hiroshi YAMAZAKI, Junko N. KONDO, Yoshihiro KUBOTA

**P2-084 Functionalized SBA-15 Supported Pd Nanoparticles as Efficient Catalyst for Ligand-Free Hiyama Cross-Coupling Reaction**

Albert CHANG, Shao-Hsien HUANG, Chun-Hsia LIU, Chia-Min YANG

**P2-085 Synthesis of Mesoporous Silica Functionalized by Organo-Amino Groups Connected via Si-C Bond**

Tsuyoshi KUGITA, Kanako AMBO, Saki YOSHIZAWA, Shirohiko OGINO, Kazuki SHIMADA, Yuji TOBARI

**P2-086 Conversion of Methanol to Olefins over Zeolites with DDR Topology: Effect of Acid Site Strength and Location on Catalytic Performance**

Irina PROKOPYEVA, Canan GUCUYENER, Jorge GASCON, Freek KAPTEIJN

**P2-088 Dehydration of Sorbitol to Isosorbide over Zeolite Catalysts**

Haruka YOKOYAMA, Bo FENG, Hirokazu KOBAYASHI, Mizuho YABUSHITA, Xin CHEN, Atsushi FUKUOKA

**P2-089  $\alpha$ -Pinene Oxide Isomerisation over Cobalt Supported Zeolites**

Eero SALMINEN, Paivi MAKI-ARVELA, Narendra KUMAR, Jyri-Pekka MIKKOLA

**P2-090 XPS Analysis of HZSM-5 Zeolite Catalysts for Steam Cracking of Naphtha**

Koichi SATO, Aritomo YAMAGUCHI, Takuji IKEDA, Norihito HIYOSHI, Taka-aki HANAOKA, Masayuki SHIRAI, Fujio MIZUKAMI

**P2-091 The Study of Ligand Effect on Direct Oxidation of Benzene over V Complexes**

**Encapsulated in Y-Zeolite Catalysts by DFT Calculation**

Atsushi OKEMOTO, Keita TANIYA, Yuichi ICHIHASHI, Satoru NISHIYAMA

**P2-093 Synthesis and Characterization of V-Loaded Titania Nanotubes for Adsorption/Photocatalysis of Dyes and Environmental Hormones Contaminated Wastewaters**

Kuen-Song LIN, Chao-Lung CHIANG, Abhijit Krishna ADHIKARI, Khanh Toan DINH

**P2-094 CO<sub>2</sub> Gas Storage and CO<sub>2</sub>/N<sub>2</sub> Separation Properties of MOF-74(Ni) with Fins Structural Characterization**

Abhijit Krishna ADHIKARI, Chao-Lung CHIANG, Kuen-Song LIN

**P2-097 Methyl Iodide Trapping by Silver-Exchanged Zeolites: Influence of Structural and Chemical Parameters on Adsorption Performances and Trapping Stability**

Mouheb CHEBBI, Bruno AZAMBRE, Laurent CANTREL

**P2-100 Preparation of Faujasite Including Metal Sulfide and Adsorption Properties in the Light Irradiation**

Satoshi YAMAZAKI, Yukino MURAMATSU, Yuki MATSUOKA

**P2-101 Desulfurization of Thiophene from Model Gasoline with Sulfur-metal  $\sigma$  Bond Adsorbent**

Mei XUE, Tingting LI, Qi FENG

**P2-102 Adsorptive Removal of Methylchlorophenoxypropionic Acid Using Metal-organic Frameworks**

Yeo S. SEO, Sung Hwa JHUNG

**P2-104 Gas Adsorption in Metal-organic Frameworks Using Surface Acoustic Waves and Computational Methods**

German SASTRE, Ben PASCHKE, Dirk VOLKMER

**P2-105 Nanoporous Gold/Alumina Platforms as SERS-Active Substrates for Highly Sensitive Monitoring of Biomolecules**

Waleed A. EL-SAID, Sherif A. EL-SAFTY

**P2-106 Xylene Isomer Separation with Slicalite-1 Membrane under Pressurized Conditions**

Motomu SAKAI, Takuya KANEKO, Masahiko MATSUKATA

**P2-107 Post-treatment for MFI-Type Zeolite Membrane with Tetraethylorthosilicate in Liquid Phase**

Motomu SAKAI, Keisuke TOMAKI, Takuya KANEKO, Masahiko MATSUKATA

**P2-108 Very High Flux MFI Membranes for Alcohol Recovery via Pervaporation at High Temperature and Pressure**

Liang YU, Danil KORELSKIY, Jonas HEDLUND

**P2-109 Zeolite Membranes for Efficient Upgrading of Biogas**

Shahpar FOULADVAND, Danil KORELSKIY, Mattias GRAHN, Jonas HEDLUND

**P2-110 Aqueous Synthesis of ZIF-8 Membranes on Imidazoline-End-Group-Functionalized Porous Alumina Supports**

Shunsuke TANAKA, Tomoko SHIMADA, Yoshikazu MIYAKE

**P2-111 Fabrication of Highly *b*-Oriented MFI Films by Adding Ammonium Salts during the Secondary Growth**

Xiaofei LU, Yong PENG, Zhengbao WANG

**P2-112 Zeolite Membranes on the Zeolite/Polymer Blend Composite Hollow Fibers**

Zhiying ZHAN

**P2-113 Vapor Phase Esterification in a Zeolite Membrane Reactor**

Yuhei KIKUCHI, Kento IWASAKI, Jun ISHIDA, Takafumi SATO, Naotsugu ITOH, Yoshimichi KIYOZUMI, Takako NAGASE, Yasuhisa HASEGAWA

**P2-114 Maxwell-Stefan Modeling on the Performance of High Flux Tubular Silicalite-1 Membranes for Upgrading of Synthesis Gas for Methanol Synthesis**

Mattias GRAHN, Jonas HEDLUND

**P2-115 Air Separation at Cryogenic Temperature Using Ultra-Thin MFI Membranes**

Pengcheng YE, Danil KORELSKIY, Mattias GRAHN, Jonas HEDLUND

**P2-116 Electronic Structure of Protonated Thiophene-Based Oligomers as Formed within Zeolites**

Diego VALENCIA, Gareth T. WHITING, Rosa E. BULO, Bert M. WECKHUYSEN

**P2-118 Density-functional Calculations of Methanol Synthesis from Methane Oxidation on 2Pt-Graphene Oxide Surface**

Chien-Hao LIN, Shiuan-Yau WU, Jia-Jen HO

**P2-119 *n*-Hexane Steam Cracking Using ZSM-5 Catalysts: Catalyst Deactivation and Chemical Modification**

Aritomo YAMAGUCHI, Dingfeng JIN, Takuji IKEDA, Koichi SATO, Norihito HIYOSHI, Masayuki SHIRAI, Fujio MIZUKAMI, Takaaki HANAOKA

Recent Research Reports (RRR)  
Monday/ June 29<sup>th</sup>

**RRR1-001 Synthesis of Pure NaA Zeolites from Coal Fly Ashes for Removal of Ammonium from Aqueous Solutions**

Zhouqing JIANG, Jing YANG, Hongwen MA, Xi MA

**RRR1-002 Flexible two-dimensional Mg(II) porous coordination polymer with isonicotinate N-oxide ligand capable of H<sub>2</sub>O/alcohol vapor separation**

Rika OCHI, Shin-ichiro NORO, Yuichi KAMIYA, Kazuya KUBO, Takayoshi NAKAMURA

**RRR1-003 Development of porous ceramic substrates for zeolite membranes**

Hirokazu WATANABE, Tomokazu EDA, Keita MIYAJIMA

**RRR1-004 An Aluminophosphate Molecular Sieve with 36 Crystallographically Distinct Tetrahedral Sites**

Jun Kyu LEE, Alessandro TURRINA, Liangkui ZHU, Seungwan SEO, DaliangZHANG,Paul A. COX, Paul A. WRIGHT, Shilun QIU, Suk Bong HONG

**RRR1-005 Synthesis of ZSM-11/ZSM-5 Zeolite Using 1,3-Cyclohexanedimethanamine as Template**

Yi LUO, Zhendong WANG, Na LI, Bin ZHANG, Hongmin SUN, Weimin YANG

**RRR1-006 Synthesis and Structural Diversity of Three Structural Isomeric Coordination Polymers Constructed by Benzene-dicarboxylate and Dipyridyl-type Ligands**

chia-wen CHENG, Szu-Yu KE, Hsiao-Shan CHIU, Yu-Wen WANG, Chih-Chieh WANG

**RRR1-007 New method for NO direct decomposition on Cu-ZSM-5 catalyst; unsteady-state reaction using microwave**

Shohei HARADA, Takeshi OHNISHI, Masaru OGURA

**RRR1-008 Single-Crystal Structures of Fully Dehydrated Partially Zn<sup>2+</sup>-exchanged Zeolite Y (FAU, Si/Al = 1.56) Depending on Zn<sup>2+</sup> Concentration of Aqueous Solution during Exchange**

Dae Jun MOON, Hu Sik KIM, Ha Young LEE, Woo Taik LIM

**RRR1-009 Lithium Exchange into Zeolites X (Si/Al = 1.09) and Y (Si/Al = 1.56) from Undried Methanol, Water, and Undried Formamide Solution**

Hu Sik KIM, Ha Young LEE, Dae Jun MOON, Jong Sam PARK, Woo Taik LIM

**RRR1-010 Dry gel conversion synthesis of flake-like SAPO-18 crystals using organosilane as a Si source**

Mayuka YAMADA, Yuichiro HIROTA, Yoshiaki UCHIDA, Yasuhiro SAKAMOTO, Norikazu NISHIYAMA

**RRR1-011 Enhancement of catalytic activity for toluene disproportionation by loading Ni on ZSM-5 zeolite**

Koshiro NAKAMURA, Akihito OKUDA, Satoshi SUGANUMA, Naonobu KATADA

**RRR1-012 Decomposition of Hexafluoroethane on Zeolite/Calcium Oxide**

Kazunori TAKAI, Sadao ARAKI, Kaiwei WENG, Hideki YAMAMOTO

**RRR1-013 Single Pass Oxidehydration of Glycerol into Acrylic Acid over Bifunctional Mo-V-O/ZSM-5 Catalyst**

Takuya HISAZUMI, Satoshi SUGANUMA, Naonobu KATADA

**RRR1-014 Efficient removal of phthalic acid from contaminated water with zinc-methylimidazolate framework-8 (ZIF-8)**

Pill Won SEO, Yeo Song SEO, Sung Hwa JHUNG

**RRR1-015 A breakthrough in the seed-directed OSDA-free synthesis of zeolites**

Keiji ITABASHI, Elangovan SHANMUGAM PALANI, Tatsuya OKUBO

**RRR1-016 Calculation of Effective Pore Properties for Methane Storage by Using MOF Type Coarse-grained Structure**

Yusuke MUKAE, Hirofumi MOTEGI, Akira SHICHI

**RRR1-017 OSDA-Free Beta with High Al Content Efficiently Catalyzes Conversion of Glucose to 5-Hydroxymethylfurfural**

Ryoichi OTOMO, Takashi TATSUMI, Toshiyuki YOKOI

**RRR1-018 Zeolite Catalyzed Friedel-Crafts Acylation of 2-Methoxynaphthalene for Environmental Benign and Highly Selective Synthesis of 2-Methoxy-6-acetylnaphthalene**

Kenichi KOMURA, Tomoyoshi YAMAZAKI

**RRR1-019 Core-Sheath; PVDF-Layered Double Hydroxide (LDH) Hybrid Substrate for Solid State Alkaline Fuel Cell (SAFC) Membrane Application**

Anilkumar GOPINATHAN M, Peilin ZHANG, S SAILAJA, Keita MIYAJIMA, Nair BALAGOPAL N, Takeo YAMAGUCHI

**RRR1-020 A Novel Amphiphilic Crystalline Microporous Aluminosilicate Material**

Takuma NAKAOKA, Takuji IKEDA, Norihito HIYOSHI, Ami IRISA, Miki KAWANO, Katsutoshi YAMAMOTO

Resent Research Reports (RRR)  
Wednesday/ July 1<sup>st</sup>

**RRR2-001 Furfural Synthesis from Bamboo Powder over CHA-type Zeolite in Biphasic Solvents**

Kurumi YOSHIDA, Hedataka NANAQ, Yoshimichi KIYOZUMI, Osamu SATO, Aritomo YAMAGUCHI, Masayuki SHIRAI

**RRR2-002 Preparation of high-silica CHA type zeolite membrane using zeolite as staring material and its separation property**

Satoshi IMASAKA, Masaya ITAKURA, Kazuhiro YANO, Suguru FUJITA, Yasuhisa HASEGAWA, Chie ABE

**RRR2-003 Conversion of tetralin to aromatic hydrocarbons on nano-sized ZSM-5**

Hidenori YAMADA, Satoshi YOSHIDA, Wataru KOBAYASHI, Yasuyuki TAKAMITSU, Yukio ITO, Shigeru HIRANO

**RRR2-004 Preparation of Mesoporous Mg-Al Mixed Metal Oxides with High Surface Area and Large Pore Volume by Using Uniform Layered Double Hydroxide Nanoparticles as Precursors**

Yuya OKA, Yoshiyuki KURODA, Takamichi MATSUNO, Atsushi SHIMOJIMA, Hiroaki WADA, Kazuyuki KURODA

**RRR2-005 Synthesis of Nanoporous Carbon with High Surface Area and Their Adsorption Properties**

Takahito MITOME, Stijn VAN DER PERRE, Gino V. BARON, Joeri F. M.DENAYER, Norikazu NISHIYAMA

**RRR2-006  $^{27}\text{Al}$  liquid state NMR studies on formation process of tubular aluminogermanate**

Moe YOSHIKAWA, Masashi OOKAWA

**RRR2-007 Crystallization of Sn-beta zeolites from Sn-Si mixed oxide composites**

Takayuki IIDA, Atsushi TAKAGAKI, Tatsuya OKUBO, Toru WAKIHARA

**RRR2-008 Preparation of ZIF-8 membrane using miscible and immiscible liquid-liquid interfaces**

Nobuo HARA, Miki YOSHIMUNE, Hideyuki NEGISHI, Shigeki HARA, Takeo YAMAGUCHI

**RRR2-009 One-pot synthesis of hollow organosilica nanoparticles with enlarged particle size and diversified organic moieties using silica nanospheres as templates**

Natsume KOIKE, Watcharop CHAIKITTISILP, Atsushi SHIMOJIMA, Tatsuya OKUBO

**RRR2-010 Effect of new matrix component on cracking Performance of FCC catalyst and its application to the combination with ZSM-5 additive**

Yuji SAKA, Norihito CHIYODA, Katsuya WATANABE, Satoshi INAGAKI, Yoshihiro KUBOTA

**RRR2-011 Structural and catalytic properties of [Al,B]-CON-type zeolites**

Masato YOSHIOKA, Takashi TATSUMI, Toshiyuki YOKOI

**RRR2-012 Preparation of Highly Ordered Mesoporous Nb-Doped TiO<sub>2</sub> with Single Crystalline Framework and Plate-like Nb-Doped TiO<sub>2</sub> with Ordered Mesoscale Dimples**

Yuta SHIMASAKI, Masaki KITAHARA, Takamichi MATSUNO, Yoshiyuki KURODA, Atsushi SHIMOJIMA, Hiroaki WADA, Kazuyuki KURODA

**RRR2-013 Preparation of Au Nanoparticles Embedded in the Framework of Mesoporous CeO<sub>2</sub>**

Miho SHOJI, Masaki KITAHARA, Atsushi SHIMOJIMA, Hiroaki WADA, Kazuyuki KURODA

**RRR2-014 Preparation of Monodisperse Colloidal Mesoporous Silica Particles with Expanded Pores and Fabrication of Colloidal Crystals**

Eisuke YAMAMOTO, Seiya MORI, Hiroto UJIIE, Hironori YAMADA, Atsushi SHIMOJIMA, Hiroaki WADA, Kazuyuki KURODA

**RRR2-015 Photoluminescence of Ag-Zeolite**

Shinji FUJIKI, Koji SUGIYAMA, Akio TANIGUCHI, Minoru MATSUKURA, Toru WAKIHARA, Hideto SAKANE

**RRR2-016 Adsorption sites of 2-PrOH on a one-dimensional Cu-based coordination polymer**

Takayuki SUZUKI, Atsushi KONDO, Kazuyuki MAEDA

**RRR2-017 Synthesis of Layer-based Vanadium 1,3,5-Benzenetriphosphonates**

Akira IRIE, Atsushi KONDO, Kazuyuki MAEDA

**RRR2-018 Synthesis of highly crystalline AFX-type zeolite by using bulky and rigid diquat molecules as a structure-directing agent**

Naoto NAKAZAWA, Satoshi INAGAKI, Yoshihiro KUBOTA

**RRR2-019 Synthesis of carbon nanospheres with high durability and its applications**

Kazusa TERASAKA, Shogo NAKAYAMA, Yusuke TSUKAMOTO, Keigo GOTO, Xiaohong LI, Hiroyuki IMAI

**RRR2-020 Ultra-small silver-EMT nanoparticles: synthesis and antibacterial properties**

B. DONG, S. BELKHAIR, M. ZARROUR, L. FISHER, J. VERRAN, L. TOSHEVA, S. MINTOVA