## Poster Session I: July 8, 16:50 h - 19:00 h

## S1-P01 Raul Abreu

Methane decomposition

#### S1-P02 Rosa M. Martin-Aranda

In-situ Fabrication of freestanding ZIF-8 membrane in microchannel for Knoevenagel condensation reaction

### S1-P03 Karel Soukup

Metal catalysts supported on nanofibrous polymeric membranes for environmental applications

### S1-P04 Izumi Kumakiri

Application of FAU zeolite membranes to alcohol/acrylate mixture systems

#### S1-P05 Hidetoshi Kita

Acid durable zeolite membranes for esterification reactions

### S1-P06 Hui Ye

A novel membrane adsorptive reactor based on hydrophilic ethylene vinyl alcohol copolymer microporous substrate for protein recovery

### S1-P07 Miguel Menéndez

Membrane reactors for water treatment using ceramic membranes: MBR and catalytic removal of nitrates

#### S1-P08 Salvatore Abate

Palladium catalytic membranes for direct synthesis of H<sub>2</sub>O<sub>2</sub>: Optimization of synthesis route and set-up configuration

### S1-P09 Eduardo Lombardo

A highly selective Pt WGS catalyst is used in a Pd-membrane reactor at pressures up to 800 kPa to obtain pure hydrogen

### S1-P10 Eduardo Lombardo

Study of a membrane reactor for WGSR: Experimental and modeling results

#### S1-P11 Adolfo Iulianelli

Methanol steam reforming for hydrogen production: supported vs dense Pd based membrane reactors

#### S1-P12 Simona Liguori

Two stages Pd-based composite membrane process for producing highly concentrated H<sub>2</sub> from water gas shift reaction

## S1-P13 Angelo Basile

A simulation study on methanol steam reforming in a silica membrane reactor for hydrogen production; Part I: Sweep gas flow rate and catalyst content effect at different reaction temperatures

## S1-P14 Angelo Basile

A simulation study on methanol steam reforming in a silica membrane reactor for hydrogen production; Part II: Membrane selectivity effect at different reaction pressures

## S1-P15 Naotsugu Itoh

Selective p-xylene synthesis in toluene disproportionation using an H-ZSM-5 catalytic membrane

### S1-P16 Nikolay L. Basov

The conversion of components of associated petroleum gas and their mixtures by nonthermal activation of process in the membrane reactor

### S1-P17 Ana I. Pereira

Development of PVD-deposited Pd-Ag functional thin film membranes on ceramic supports for hydrogen purification/separation

### S1-P18 Mourad Amara

Permeation performance of polymeric cellulose triacetate membrane

### S1-P19 Joaquim Vital

Poly(vinyl guanidine) membranes as basic catalysts for biodiesel synthesis via soybean oil transesterification

## S1-P20 Eduardo López

Ethanol steam reforming over Rh-Pd/CeO<sub>2</sub>: Theoretical and experimental study of a catalytic membrane reactor

### S1-P21 Antonielly S. Barbosa

Synthesis and characterization of zeolite membrane MCM-22 - vapor transport method

## S1-P22 Antonielly S. Barbosa

Synthesis of zeolite membranes through two distinct methods: Rubbing and dip coating.

### S1-P23 Antusia S. Barbosa

Synthesis and characterization of alumina (y-alumina) for use as ceramic membrane.

### S1-P24 Shin-Kun Ryi

Combined steam and CO2 reforming of methane using catalytic nickel membrane for gas to liquid (GTL) process

### S1-P25 Shin-Kun Ryi

Pd-Cu alloy membrane deposited on CeO<sub>2</sub> modified porous nickel membrane for hydrogen separation

### S1-P26 Francisco R. García-García

Studies on water-gas-shift reaction enhanced by adsorption and membrane permeation

#### S1-P27 Hamid R. Godini

Synthesis of catalytic membrane reactor for methaneoxidative coupling using sol-gel method

### S1-P28 Ali A. Babaluo

Effect of operating conditions on hydroisomerization of n-pentane over Pt/ZSM-5 nano catalyst in zeolite based membrane reactor

#### S1-P29 Ali A. Babaluo

Hydroisomerization of pentane isomers over Pt/ZSM-5 nanocatalyst with membrane reactor prospect

#### S1-P30: Adel Saadi

Hydrothermal synthesis of hydrotalcite Cull-MIII and Coll-MIII(M: AI, Fe) catalysts. Application for benzaldehyde hydrogenation.

### S1-P31: Spyros Voutetakis

Enhancement of pure hydrogen production through the use of a membrane reactor.

### S1-P32: Giuseppe Barbieri

Direct conversion of n-butane to isobutene in a membrane reactor: Thermodynamic analysis

### S1-P33: Giuseppe Barbieri

Membrane reactors for benzene hydroxylation to phenol

## S1-P34: Giuseppe Barbieri

One-stage process of water gas shift with a Pd-Ag membrane reactor.

### S1-P35 Miguel A. Soria

CO<sub>2</sub> sorption-enhanced membrane reactors for high-purity hydrogen production through low temperature water gas-shift reaction

### S1-P36 King Lun Yeung

Treatment of endocrine disrupting compounds in water by an advanced ozone

#### S1-P37: Marta Maroño

Hydrogen permeation through a Pd-based membrane in  $H_2/CO_2$ ,  $H_2/N_2/CO_2$  and  $H_2/H_2O/CO_2$ mixtures: Influence of gas flow-rate, temperature and concentration of feed gases

### S1-P38: Tatiana Bisoto

Development of palladium-alumina membranes for gas separation

### S1-P39: Marta Maroño

Influence of  $H_2$  permeation on the performance of a hybrid system sorbent catalyst-membrane for  $CO_2$  capture and  $H_2$  production in pre-combustion.

## S1-P40 Alexey Fedotov

Porous ceramic membrane-catalytic hydrogen-containing gas generators for compact power plants.

# S1-P41 Kaidi Gao

Analysis of the methane-dehydro-aromatization on a Mo/MCM-22 catalyst in a membrane reactor

### S1-P42 Alessio Caravella

Effective characterisation of the non-ideal behaviour of Pd-based membranes

## S1-P43 Marcello De Falco

Natural gas membrane steam reforming: Heat duty assessment.

## S1-P44 Aleksey Vedyagin

Coating of ceramic membranes with catalytic layer by sol-gel technique

## S1-P45 Seungcheol Lee

Inkjet printing of porous nanoparticle catalyst for integration in a microchannel membrane steam reformer

## S1-P46 Miria H. M. Reis

Evaluation of substrate macrostructures in  $Pd/Al_2O_3$  composite hollow fibre membranes for  $H_2$  permeation

## S1-P47 Mayra García

Novel sputtering protocol for preparation of mono and bimetallic Pd-based membrane reactors - Insights on the Pd deactivationin the hydrogen peroxide generation application

## S1-P48 Cuiyu Yin

Preparation and characterization of cellulose carbamate regeneration membrane by supercritical carbon dioxide

### S1-P49 Antonio Ricca

Membrane assisted propane dehydrogenation for propylene production.

## S1-P50 Beata Michalkiewicz

Diameter-controlled carbon nanotubes production

### S1-P51 Beata Michalkiewicz

Design of new catalysts for oxidation of benzyl alcohol

## Poster Session II: July 9, 17:00 h - 19:30 h

#### S2-P01: Ekain Fernandez

Preparation and characterization of intermetallic diffusion barrier layers for stainless steel supported palladium membranes.

### S2-P02: Inna Petrova

Removal of trichloroethylene from water by the Pd-loaded interfacial catalytic membrane contactor.

## S2-P03 Carlos V. Miguel

Design of Pd-based membranes using a modified Sieverts-Langmuir equation for predicting the effect of carbon oxides on hydrogen permeation

#### S2-P04 Susana Almeida

Development of a self-regenerative unit for CO<sub>2</sub> removal in closed loop systems

#### S2-P05 Paulo Ribeirinha

Study of different reactor designs for methanol steam reforming: experimental and modelling approach

### S2-P06 Yingbo Chen

Preparation of PVDF-Ni hollow fiber catalytic membranes for hydrogen production from sodium borohydride.

### S2-P07: Yuzhong Zhang

Removal of Cu<sup>2+</sup> from aqueous solutions with zeolite 4A/PES membrane adsorptive reactor.

#### S2-P08: Laura Furones

Development of a new Pd-based membrane highly efficient for H2 production via water water gas shift reactor.

### S2-P09: Heike Kreuder

Catalytic dehydrogenation of cycloalkanes in a microstructured membrane reactor.

### S2-P10: Tong Zhang

Preparation of magnetic core-shell catalysts encapsulated by ZIF-8 membrane shells and their potential application in a capillary microreactor.

### S2-P11: Tong Zhang

Preparation and catalytic performance of  $Ni/Al_2O_3$ -Sil-1 core-shell catalysts encapsulated by Sil-1 membranes from different preparation procedures.

## S2-P12: Jianquan Lou

Fouling-induced enzyme immobilization in a membrane reactor.

## S2-P13: Atsushi Oshima

Kinetic enhancement of ammonia decomposition as a hydrogen carrier in a composite palladium membrane reactor.

## S2-P14: Miguel Torres

Forced flow-through catalytic membrane reactor for cumene synthesis.

## S2-P15 Patrícia Pérez

The poisoning effect of the CO and CO2 in the H2 flux permeating through a palladium membrane

### S2-P16 Sandra Rodrigues

Carbon molecular sieve membranes derived from resorcinol-formaldehyde resin for gas separation

## S2-P17 Frans Snijkers

Fabrication and characterization of activated perovskite capillary membranes for catalytic membrane reactors

## S2-P18 Roland Dittmeyer

Development of a proton-conducting electrochemical membrane reactor for catalyst-aided generation of hydrogen from H<sub>2</sub>S-H<sub>2</sub>O mixtures

### S2-P19 Antonio Comite

Novel Microporous Layers for PEM Fuel Cells developed from Poly(vinylidene fluoride) and Sulfonated Poly(vinylidene fluoride)

### S2-P20 Paula Oliveira

Preparation and characterization of polymer electrolyte membrane (PEM) for fuel cell based in a polymeric blend poly(vinyl alcohol)/chitosan with different sulfonation degree

## S2-P21 King Lun Yeung

Confined PFSA-Pt/HY/Sil-1 composite membrane for self-humidifying high-temperature PEMFC

## S2-P22 King Lun Yeung

Confined PFSA-zeolite proton conducting membrane: the effects of confinement and zeolite-type.

### S2-P23 Xuefeng Zhu

Degradation mechanism and stabilization of MIEC oxygen membranes at low-temperature

### S2-P24 Youmin Guo

All porous solid oxide fuel cell (SOFC): a bridge technology between dual and single chamber SOFC

### S2-P25: Evangelos I. Papaioannou

Micro-patterned electrodes for the study and control of spillover processes in catalysis: The role of the tbp in the kinetics of CO oxidation reaction.

### S2-P26: Irina Belenkaya

Characterization of structure and microstructure of ceramic membrane materials  $SrCo_{0.8 imes} Fe_{0.2} M_x O_{3.6}$  (M=Ta, Nb;  $0 ext{ } ext{ }$ 

### S2-P27: Olga Savinskaya

Study of structural features and oxygen permeability of SrCo<sub>0.8-x</sub>Fe<sub>0.2</sub>Mo<sub>x</sub>O<sub>3-z</sub> (0≤x≤0.2) nanostructured membranes.

### S2-P28: Elena Artimonova

Crystal structure and oxygen permeability of SrCo<sub>0.8-x</sub>Fe<sub>0.2</sub>W<sub>x</sub>O<sub>3-z</sub> (0≤x≤0.2) ceramic membrane.

### S2-P29 Sergio Morales-Torres

Photocatalytic activity of graphene oxide-TiO<sub>2</sub> composites immobilized into hollow fibres

#### S2-P30 Jianxin Li

Phenolic wastewater treatment by an electrocatalytic membrane reactor

### S2-P31: Julio Bastos-Arrieta

Ecologicaly safe bifunctional ion exchangers: Surface modification of ion ex-change materials with metal nanoparticles for catalytic and electrocatalytic applications

### S2-P32 Marie P. Belleville

Continuous enzymatic saccharification of regenerated cellulose in a ceramic membrane reactor.

### S2-P33 Anna Trusek-Holownia

Matematical model of a membrane bioreactor with biomass and substrate retention in BTEX biodegradation

#### S2-P34 Viktoriia Konovalova

Comparison of  $\alpha$ -amylase immobilization methods on polymer membranes by determining mass transfer coefficient

## S2-P35 Lidietta Giorno

Enzyme membrane reactor: A green tool for developing processes with self-foul controlling potential for vegetation wastewater

### S2-P36: Philipp Grünert

Extraction of flavonoids from a whole cell biotransformation process

## S2-P37: Ligang Lin

Novel mixed matrix membranes reactor for sulfur removal and for fuel cell applications

## S2-P38 Hugo Silva

Very low CO methanol steam reforming reformate for fuel cell applications - the development of new catalysts.

### S2-P39: Jun Ishida

Catalytic HY zeolite membrane for esterification of acetic acid with ethanol

## S2-P40: Berta Domènech

Synthesis of silver nanoparticles in Nafion membranes. Development of bifunctional nanocomposite membranes.

## S2-P41: Yabin B. Zhang

Preparation of plat glass membrane with hierarchical pore from waste glass.

## S2-P42: Mohammed N. Kajama

Gas permeation properties on y-alumina ceramic membranes at high temperature

### S2-P43: José A. Medrand

The membrane-assisted chemical looping reforming concept (MA-CLR) for efficient hydrogen production with integrated CO₂ capture