

**7<sup>th</sup> Panhellenic Symposium on Porous Materials**  
**June 2<sup>nd</sup> - 4<sup>th</sup> 2016, University of Ioannina, Ioannina**

**Symposium Program**

<b>Thursday 02/06/2016</b>	
09:00 – 10:00	Registration (Coffee)
10:00 – 10:10	Welcome
<b>CHAIRS: Σταθόπουλος Βασίλειος, Στεριώτης Θεόδωρος</b>	
10:10 – 10:50	ΔΙΕΡΕΥΝΩΝΤΑΣ ΤΑ ΠΟΡΩΔΗ ΥΛΙΚΑ – ΜΙΑ ΠΟΡΕΙΑ ΣΤΗ ΓΝΩΣΗ ΚΑΙ ΣΤΟ ΧΡΟΝΟ Φίλιππος Πομώνης
10:50 – 11:30	DYNAMIC GRAVIMETRIC GAS/VAPOR SORPTION STUDIES ON MOFS & ZEOLITES Dr. Vladimir Martis
11:30 – 12:00	Coffee Break
<b>CHAIRS: Φρουδάκης Γεώργιος, Γουρνής Δημήτριος</b>	
12:00 – 12:30	ADSORPTION PROCESSES IN NANOPOROUS MATERIALS Theodoros Steriotis
12:30 – 12:45	IONIC LIQUID MODIFIED POROUS MATERIALS FOR GAS SEPARATION AND CAPTURE Georgios Romanos
12:45 – 13:00	PYROLYTIC CHAR/TiO <sub>2</sub> COMPOSITE PHOTOCATALYSTS WITH ENHANCED PERFORMANCE TOWARDS ORGANIC POLLUTANTS OXIDATION AND REDUCTION OF Cr(VI) V. Makrigianni, A. Giannakas, M. Antonopoulou, I. Deligiannakis and I. Konstantinou
13:00 – 14:00	Lunch
<b>CHAIRS: Μπουρλίνος Αθανάσιος, Χαραλαμποπούλου Γεωργία</b>	
14:00 – 14:30	NANOMATERIALS FOR ENERGY PRODUCTION AND ENVIRONMENTAL TECHNOLOGIES Ioannis Deligiannakis

14:30 – 14:45	OPTIMIZATION OF A COLD PLASMA REACTOR FOR THE REMOVAL OF LIQUID HYDROCARBONS FROM SOIL LAYERS C.A. Aggelopoulos and C.D. Tsakiroglou
14:45 – 15:00	INTERACTIONS OF ZERO VALENT IRON NANOPARTICLES (NZVI) WITH TETRACHLOROETHYLENE (PCE) IN POROUS MEDIA K. Terzi, A. Sikinioti-Lock, C.A. Aggelopoulos and C.D. Tsakiroglou
15:00 – 15:15	Pd@SiO <sub>2</sub> -GA NANOHYBIDS FOR H <sub>2</sub> PRODUCTION AT AMBIENT TEMPERATURE AND PRESSURE: SYNTHESIS AND CATALYTIC MECHANISM Panagiota Stathi, Maria Louloudi, Yiannis Deligiannakis
15:15 – 15:30	A BOTTOM-UP SYNTHESIS OF TRANSPARENT FLEXIBLE CLAY-CARBON DOT HYBRID FILMS A. Kouloumpis, K. Dimos, F. Arcudi, I. B. Koutselas, M. Prato, P. Rudolf and D. Gournis
15:30 – 15:45	FLAME-SPRAY-PYROLYSIS PRODUCTION OF CeO <sub>2</sub> NANOPARTICLES DECORATED WITH Au-NANOCLUSTERS: SYNTHESIS, CATALYSIS APPLICATION Y. Georgiou, E. Mouzourakis, I. Karympali, E. Aikaterini and Y. Deligiannakis
15:45 – 16:00	A LOW-COST RECYCLED-TIRE PYROLYTIC CARBON, PTC350 <sup>®</sup> , OPTIMIZED VIA A PHYSICAL PROCESS FOR ARSENITE (AsIII) ADSORPTION E. Mouzourakis, Y. Georgiou, M. Louloudi, I. Konstantinou, Y. Deligiannakis
16:00 – 16:30	Coffee Break
<b>CHAIRS: Αυγερόπουλος Απόστολος, Τριανταφυλλίδης Κωνσταντίνος</b>	
16:30 – 16:45	ON THE USE OF SWELLABLE POLYMERS AS STRUCTURE DIRECTING SCAFFOLDS IN POROUS SOLIDS DESIGN C.A. Papatyfonos, and C.R Theocharis
16:45 – 17:00	ΠΡΟΣΡΟΦΗΤΙΚΑ ΥΛΙΚΑ ΑΝΘΡΑΚΑ Αθανάσιος Μπουρλίνος
17:00 – 17:15	POROUS ASSEMBLIES OF CARBON-BASED NANOSTRUCTURES: APPLICATIONS D. Tasis, G. Trakakis, J. Parthenios, C. Galiotis and K. Papagelis
17:15 – 17:30	ΚΑΙΝΟΤΟΜΑ ΝΑΝΟΣΥΝΘΕΤΑ ΥΛΙΚΑ ΑΠΟΤΕΛΟΥΜΕΝΑ ΑΠΟ ΝΑΝΟΔΟΜΕΣ ΑΝΘΡΑΚΑ ΚΑΙ ΠΟΡΩΔΗ ΥΛΙΚΑ ΤΥΠΟΥ ZIF Θ. Τσούφης, Χ. Ταμπαξής, Ι. Σπανόπουλος, Θ. Στεριώτης, Φ. Κατσαρός, Γ. Χαραλαμποπούλου και Π. Τρικαλίτης

17:30 – 17:45	NOVEL METAL ORGANIC FRAMEWORKS BASED ON TETRAHEDRAL LINKERS AND HIGH CONNECTIVITY METAL CLUSTERS Giasemi K. Angeli, Constantinos Tsangkarakis, Ioannis Spanopoulos and Pantelis N. Trikalitis
17:45 – 18:00	RETICULAR EXPANSION OF ETB-MOFS FOR METHANE STORAGE I. Spanopoulos, C. Tsangarakis, C. Tampaxis, E. Klontzas, T. A. Steriotis, G. E. Froudakis, and P. N. Trikalitis
18:00 – 18:15	OXALAMIDE BASED METAL-ORGANIC FRAMEWORKS A. Margariti, A.D. Katsenis, T. Friscic, E. Moushi, A. Tasiopoulos, E.J. Manos, T. Lazarides and G.S. Papaefstathiou
18:15 – 18:30	METAL-ORGANIC FRAMEWORKS FOR SENSING APPLICATIONS G.D. Tarlas, E. Moushi, A. Tasiopoulos, A.D. Katsenis, T. Friscic, V. Bon, S. Kaskel and G.S. Papaefstathiou
18:30 – 18:45	Cu(II) FRAMEWORKS FROM A “MIXED-LIGAND” APPROACH A.M. Fidelli, V.G. Kessler and G.S. Papaefstathiou
18:45 – 19:00	MAGNETIC POROUS CARBON NANOCAGES FOR WATER TREATMENT E.Petala, V. Kostas, K. Dimos, K. C. Vasilopoulos, J. Tuček, C. Aparicio, M. A. Karakassides and R. Zbořil
19:00	End of day 1

**Friday 03/06/2016**

**CHAIRS: Πετράκης Δημήτριος, Ρωμανός Γεώργιος**

- 10:00 – 10:40 SOFT FILLINGS IN NANOPOROUS SOLIDS: FROM FUNDAMENTALS TO FUNCTIONALITIES  
Patrick Huber
- 10:40 – 11:20 NANOPOROUS AND NANORELIEF POLYMER MATERIALS; CHARACTERIZATION AND APPLICATIONS  
Apostolos Avgeropoulos
- 11:20 – 11:45 Coffee Break

**CHAIRS: Μητρόπουλος Αθανάσιος, Θεοχάρης Χάρης**

- 11:45 – 12:15 NMR STUDIES OF DIFFUSION IN POROUS MEDIA  
Georgios Papavassiliou
- 12:15 – 12:45 CURRENT TRENDS IN CEMENT & CONCRETE TECHNOLOGY: BUILDING FOR THE FUTURE  
Marios Katsiotis
- 12:45 – 13:00 Η ΤΕΧΝΙΚΗ ΦΑΣΜΑΤΟΣΚΟΠΙΑΣ ΦΩΤΟΗΛΕΚΤΡΟΝΙΩΝ ΑΠΟ ΑΚΤΙΝΕΣ-X (XPS) ΩΣ ΕΡΓΑΛΕΙΟ ΜΕΛΕΤΗΣ ΠΟΡΩΔΩΝ ΥΛΙΚΩΝ  
Λαμπρινή Σύγκελλου
- 13:00 – 14:00 Lunch

**CHAIRS: Κατσαρός Φώτιος, Δεληγιαννάκης Ιωάννης**

- 14:00 – 14:30 HETEROGENISED HYBRID MATERIALS: MOLECULAR CATALYSTS FOR INDUSTRIAL & ENVIRONMENTAL TECHNOLOGIES  
Maria Louloudi
- 14:30 – 15:00 HIERARCHICAL ZEOLITE CATALYSTS FOR BIOMASS FAST PYROLYSIS  
P.A Lazaridis, S.A. Karakoulia, K.S. Triantafyllidis
- 15:00 – 15:15 ΑΝΑΠΤΥΞΗ ΣΤΗΡΙΓΜΕΝΩΝ ΣΕ  $ZrO_2$  ΚΑΤΑΛΥΤΩΝ ΝΙΚΕΛΙΟΥ ΓΙΑ ΠΑΡΑΓΩΓΗ ΑΝΑΝΕΩΣΙΜΟΥ ΝΤΙΖΕΛ  
Γ. Ζαφειρόπουλος, Ν. Ι. Νικολόπουλος, Ε. Κορδούλης, Κ. Μπουρίκας, Α. Λυκουργιώτης και Χ. Κορδούλης
- 15:15 – 15:30 ΜΕΣΟΠΟΡΩΔΗΣ ΤΙΤΑΝΙΑ ΠΑΡΑΣΚΕΥΑΣΜΕΝΗ ΜΕ ΤΗ ΜΕΘΟΔΟ ΤΗΣ ΗΛΕΚΤΡΟΣΤΑΤΙΚΗΣ ΙΝΟΠΟΙΗΣΗΣ (ELECTROSPINNING) ΓΙΑ ΤΗΝ ΦΩΤΟΚΑΤΑΛΥΤΙΚΗ ΑΠΟΙΚΟΔΟΜΗΣΗ ΤΗΣ ΑΚΕΤΟΝΗΣ

Γ. Σκούρας, Γ. Τάτση, Ν. Todorova, Χ. Τράπαλης και Τ. Βαϊμάκης

15:30 – 15:45	ΜΕΛΕΤΗ ΤΗΣ ΕΠΙΔΡΑΣΗΣ ΥΠΕΡΗΧΩΝ ΣΕ ΚΑΤΑΛΥΤΙΚΑ ΥΛΙΚΑ Α. Καρύδης, Α. Μαυρογιώργου, Μ. Λουλούδη
15:45 – 16:15	Coffee Break
<b>CHAIRS: Μπουργανός Βασίλειος, Λάνταβος Αθανάσιος</b>	
16:15 – 16:45	DESIGNING NANOPOROUS MATERIALS FOR GAS STORAGE AND SEPARATION. A MULTI-SCALE THEORETICAL STUDY George Froudakis
16:45 – 17:00	RECONSTRUCTION OF MIXED MATRIX MEMBRANES WITH IMMOBILIZED ENZYMES N. Bali, E. D. Skouras, and V. N. Burganos
17:00 – 17:15	MODELING OF HIERARCHICAL ZEOLITES FOR SMALL HYDROCARBONS ADSORPTION Marianna Kotzabasaki, Emmanuel Klontzas, Kostas S. Triantafyllidis and George E. Froudakis
17:15 – 17:30	INCREASING POROSITY AND THERMAL STABILITY OF NiFe <sub>2</sub> O <sub>4</sub> FOR THERMOCHEMICAL PROCESSES I. Teknetzi, P. Nessi, V. Zaspalis and L. Nalbandian
17:30 – 17:45	POROUS SURFACES FOR DROPLET ACTUATION AND MOBILITY MANIPULATION USING BACKPRESSURE N. Vourdas, G. Pashos, G. Kokkoris, A.G. Boudouvis and V.N. Stathopoulos
17:45 – 18:00	NAFION <sup>®</sup> NANOCOMPOSITE MEMBRANES WITH ENHANCED PROPERTIES AT HIGH TEMPERATURE AND LOW HUMIDITY ENVIRONMENTS L. Boutsika, A. Enotiadis, I. Nicotera, C. Simari, G. Charalambopoulou, E. Giannelis, T. Steriotis
18:00 – 19:00	Poster Session
19:00	End of day 2
20:30	Symposium Dinner

**Saturday 04/06/2016**

**SPECIAL SESSION DEDICATED TO PHILIPPOS POMONIS**

**CHAIRS: Καρακασίδης Μιχαήλ, Ναλμπαντιάν Λώρη**

- 10:00 – 10:30 ADSORPTION STUDY AND APPLICATION OF BOX-BEHNKEN DESIGN FOR THE REMOVAL OF TWO ORGANOPHOSPHORUS PESTICIDES BY LOW COST POROUS MATERIALS, USED TEA AND NEEM LEAVES  
M. Azharul Islam, Vasilios Sakkas, Triantafyllos A. Albanis
- 10:30 – 10:45 Η ΜΕΘΟΔΟΣ I-POINT  
Αθανάσιος Λάνταβος
- 10:45 – 11:00 POROUS STRUCTURES AS ACTIVE MICROFLUIDIC COMPONENTS  
P. Marakis, N. Vourdas, E. Tsampasis and V.N. Stathopoulos
- 11:00 – 11:15 PREPARATION, CHARACTERIZATION AND EVALUATION OF IRON-IMPREGNATED CARBON FELTS AS CATHODIC ELECTRODES USING TO ELECTRO-FENTON SYSTEM  
S.D. Sklari, K.V. Plakas, V.T. Zaspalis and A.J. Karabelas

11:15 – 11:45 Coffee Break

**CHAIRS: Αλμπάνης Τριαντάφυλλος, Λουλούδη Μαρία**

- 11:45 – 12:15 NANOPOROUS PILLARED GRAPHENES: FROM SYNTHESIS TO APPLICATIONS  
Dimitrios Gournis
- 12:15 – 12:30 MESOPOROUS LaFeO<sub>3</sub> PEROVSKITES SYNTHESIZED VIA TEMPLATED ASSEMBLY METHOD USING AMINOACIDS  
A.M. Margellou, I.T. Papadas, D.E. Petrakis, G.S. Armatas and P.J. Pomonis
- 12:30 – 12:45 ΥΠΟΣΤΗΡΙΖΟΜΕΝΟΙ ΠΕΡΟΒΣΚΙΤΕΣ LaCoO<sub>3</sub> ΣΕ ΣΠΕΙΡΟΜΟΡΦΗ ΣΙΛΙΚΑ  
Ε.Θ. Τσαούση, Δ.Ε. Πετράκης και Φ.Ι. Πομώνης
- 12:45 – 13:00 ΒΡΑΒΕΥΣΗ ΦΙΛΙΠΠΙΟΥ ΠΟΜΩΝΗ  
Τριαντάφυλλος Αλμπάνης
- 13:00 – 13:10 ΒΡΑΒΕΥΣΗ ΚΑΛΥΤΕΡΩΝ ΕΡΓΑΣΙΩΝ ΝΕΩΝ ΕΡΕΥΝΗΤΩΝ

13:10 Closing of Symposium

## POSTERS

- P1 ELECTROCHEMICAL REMEDIATION OF HEXAVALENT CHROMIUM BEARING WASTEWATER BY CAPACITIVE DEIONIZATION  
Konstantinos Dermentzis
- P2 SMALL-ANGLE NEUTRON SCATTERING FROM PHENOL-FUNCTIONALIZED MULTI-WALL CARBON NANOTUBES IN NMP AND DMSO SOLUTIONS  
E.P. Favvas, K.L. Stefanopoulos, A.A. Stefopoulos, A.Ch. Mitropoulos, D. Lairez
- P3 A COMPUTATIONAL STUDY OF ETHANETHIOL CONVERSION REACTIONS CATALYZED BY ACIDIC ZEOLITE  
D. K. Papayannis, A. M. Kosmas, N. Tsolakis
- P4 ΣΥΝΘΕΣΗ ΚΑΙ ΚΑΤΑΛΥΤΙΚΗ ΔΡΑΣΤΙΚΟΤΗΤΑ ΤΩΝ ΣΠΙΝΕΛΙΩΝ  $NiAl_{2-x}Fe_xO_4$   
Π.Σ. Κώνστας, Δ.Ε. Πετράκης
- P5 ΕΠΙΦΑΝΕΙΑΚΗ ΧΗΜΙΚΗ ΤΡΟΠΟΠΟΙΗΣΗ ΜΑΚΡΟΠΟΡΩΔΟΥΣ ΑΝΘΡΑΚΑ ΤΡΙΣΔΙΑΣΤΑΣΤΗΣ ΔΟΜΗΣ (3-DOM): ΕΦΑΡΜΟΓΕΣ ΣΤΗΝ ΟΞΕΙΔΩΤΙΚΗ ΚΑΤΑΛΥΤΙΚΗ ΤΕΧΝΟΛΟΓΙΑ  
Α. Σημαιοφορίδου, Β. Κώνστας, Μ. Καρακασίδης και Μ. Λουλούδη
- P6 ΑΝΑΠΤΥΞΗ ΚΑΤΑΛΥΤΩΝ  $Ni-M-Al_2O_3$  (ΟΠΟΥ Μ: W, V, Cr) ΓΙΑ ΤΗΝ ΜΕΤΑΤΡΟΠΗ ΦΥΣΙΚΩΝ ΤΡΙΓΛΥΚΕΡΙΔΙΩΝ ΣΕ ΑΝΑΝΕΩΣΙΜΟ ΝΤΙΖΕΛ  
Χ. Η. Παπαδόπουλος, Ε. Κορδούλη, Κ. Μπουρίκας, Α. Λυκουργιώτης και Χ. Κορδούλης
- P7 GAS SEPARATION PROPERTIES OF TWO FLEXIBLE Al-MOFs: EFFECT OF LINKER SUBSTITUTION  
E. Gkaniatsou, N Kumar, C. Sicard, F. Nouar, N. Steunou, C. Serre, M. Prakash, N. A. Ramsahye, G. Maurin, V. Benoit, S. Bourrelly, P. Llewellyn, P. Normad, P. Billefont, G. De Weireld, A. Sabetghadam, B. Seoane, J. Gascon, F. Kapteijn, I. Dovgaliuk, D. Safin, Y. Filinchuk
- P8 RAPID, GREEN AND INEXPENSIVE SYNTHESIS OF HIGH QUALITY  $U_iO_{66}$  AMINO-FUNCTIONALIZED MATERIALS WITH EXCEPTIONAL CAPABILITY FOR REMOVAL OF HEXAVALENT CHROMIUM FROM INDUSTRIAL WASTE  
Sofia Rapti, Anastasia Pournara, Debajit Sarma, Ioannis T.Papadas, Gerasimos S. Armatas, Youssef S. Hassan, Mohamed H. Alkordi, Mercuri G. Kanatzidis and Manolis J. Manos
- P9 UNRAVELLING THE MECHANISM OF WATER SENSING BY THE  $Mg^{2+}$ -DIHYDROXYTEREPHTHALATE MOF (AEMOF-1)  
Eleutheria Papazoi, Theodore Lazarides and Manolis J. Manos

- P10 ADSORPTION AND REMOVAL OF SELECTED PESTICIDES AND A TYPICAL DYE FROM AQUEOUS SOLUTION BY ACTIVATED CARBONS PRODUCED FROM AGRICULTURAL WASTES ON STATISTICAL  
M. Azharul Islam, Vasilios Sakkas, Triantafyllos A. Albanis
- P11 PHOTOCATALYTIC PERFORMANCE OF N,S CO-DOPED TiO<sub>2</sub> FOR THE DEGRADATION OF ORGANOPHOSPHORUS FLAME RETARDANTS UNDER SOLAR AND VISIBLE LIGHT  
M. Antonopoulou, A. Giannakas, F. Bairamis, M. Papadaki and I. Konstantinou
- P12 ΠΑΡΑΣΚΕΥΗ ΣΩΛΗΝΩΝ TiO<sub>2</sub> ΣΥΝΔΥΑΖΟΝΤΑΣ ΤΗΝ ΤΕΧΝΙΚΗ ΤΗΣ ΗΛΕΚΤΡΟΣΤΑΤΙΚΗΣ ΙΝΟΠΟΙΗΣΗΣ ΚΑΙ ΤΗΝ ΜΕΘΟΔΟ ΤΗΣ ΕΠΙΣΤΡΩΣΗΣ ΜΕ ΕΜΒΑΠΤΙΣΗ ΓΙΑ ΔΙΑΣΠΑΣΗ ΥΓΡΩΝ ΡΥΠΩΝ  
Γ. Τάτση, Ι. Δεληγιαννάκης, Δ. Πετράκης, Γ. Σκούρας, Τ. Βαϊμάκης
- P13 ΠΡΟΣΟΜΟΙΩΣΗ ΤΗΣ ΠΡΟΣΘΗΚΗΣ ΣΥΝΔΕΤΙΚΩΝ ΜΕΣΩΝ ΣΕ ΠΟΡΩΔΗ ΥΛΙΚΑ ΚΑΙ ΠΡΟΒΛΕΨΗ ΔΙΑΠΕΡΑΤΟΤΗΤΑΣ ΜΕ ΤΗ ΜΕΘΟΔΟ LATTICE-BOLTZMANN  
Ε. Δ. Σκούρας, Α. Κ. Καλαράκης και Β. Ν. Μπουργανός
- P14 GAS SORPTION STUDIES OF FUNCTIONALIZED FCU TYPE MOFS  
C. Tsangarakis, I. Spanopoulos, C. Tampaxis, T. A. Steriotis and P. N. Trikalitis
- P15 ΠΑΡΑΓΩΓΗ ΝΑΝΟΦΥΣΑΛΙΔΩΝ ΜΕ ΤΗ ΧΡΗΣΗ ΣΥΣΚΕΥΩΝ ΜΕ ΔΙΑΦΟΡΕΤΙΚΕΣ ΚΕΦΑΛΕΣ  
Ε.Δ. Μιχαηλίδη, R.I. Kosheleva, Γ. Μπόμης, Α. Βαρούτογλου, Ε. Φάββας και Α. Μητρόπουλος
- P16 OH-IRMOF-16 AS POTENTIAL DRUG CARRIER FOR GEMCITABINE DELIVERY. A DFT STUDY  
Marianna Kotzabasaki, Emmanuel Klontzas and George E. Froudakis
- P17 THE ANTIOXIDANT EFFECT OF HYBRID NANOMATERIALS: THERMODYNAMIC STUDY  
Eleni Bletsas, Maria Louloudi and Yiannis Deligiannakis
- P18 A BOTTOM-UP SYNTHESIS OF HYBRID MAGNETIC THIN FILMS CONSISTING OF SINGLE MOLECULE MAGNETS AND CLAY NANOPATELETS  
N. Chalmpes, A. Kouloumpis, A. Geitona, K. Dimos, K. Raptopoulou, V. Psycharis, Y. Sanakis, M. A. Karakassides, G. Papavasileiou and D. Gournis
- P19 METAL-SUBSTITUTED POROUS CARBON CUBOIDS: SYNTHESIS & CHARACTERIZATION  
K. M. Lyra, E. Thomou, K. Spyrou, V. Kostas, K. Dimos, F. K. Katsaros, M. A. Karakassides and D. Gournis
- P20 SYNTHESIS AND CHARACTERIZATION OF A NOVEL HETEROBIMETALLIC In(III)-Pd(II) METAL-ORGANIC FRAMEWORK  
I. Bratsos, C. Tampaxis, I. Spanopoulos, N. Demitri, D. Vourloumis, G. Charalambopoulou, P. Trikalitis, T. Steriotis



- P21 HYDROGEN STORAGE PROPERTIES OF PRISTINE AND MODIFIED SINGLE WALL CARBON NANOHORN STRUCTURES  
Marie-Louise Saboungi, Dimitra Giasafaki, Christos Tampaxis, Georgia Charalambopoulou, Theodore Steriotis
- P22 PORE AND GAS SORPTION PROPERTIES OF A NEW SERIES OF PYRIDINE CONTAINING METAL ORGANIC FRAMEWORKS  
Patrick Gamez, Christos Tampaxis, Georgia Charalambopoulou, Theodore Steriotis
- P23 HYDROGEN STORAGE PROPERTIES OF IMIDE-CARBON COMPOSITES  
Sebastiano Garroni, Filippo Peru, Christos Tampaxis, Georgia Charalambopoulou, Theodore Steriotis
- P24 HYDROGEN STORAGE PERFORMANCE OF IONIC LIQUID-IMPREGNATED AEROGELS  
Catalin Croitoru, Christos Tampaxis, Georgia Charalambopoulou, Theodore Steriotis
- P25 QUANTUM YIELD OF HOLES, ELECTRONS,  $\text{OH}^\bullet$  BY PHOTOCATALYTIC  $\text{TiO}_2$  NANOPARTICLES; AN EPR BASED METHODOLOGY  
M. Solakidou, C. Gianniotis and Y. Deligiannakis
- P26 ON THE ADSORPTION CAPACITY OF NANOPOROUS MATERIALS UNDER THE INFLUENCE OF A ROTATIONAL FIELD  
R.I. Kosheleva, E.P. Favvas, K.L. Stefanopoulos, A.Th. Varoutoglou, G.A. Bomis, T.D. Karapantsios and A.Ch. Mitropoulos
- P27 MULTI-COMPONENT ADSORPTION IN GME ZEOLITE IMIDAZOLE FRAMEWORKS  
Anastasios Gotzias, Emmanuel Tylianakis, Nikos Papadimitriou
- P28 MOLECULAR SIMULATION OF POST - COMBUSTION CAPTURE BY CLINOPTILOLITES  
Anastasios Gotzias, Evangelos Kouvelos and Andreas Sapalidis
- P29 HIGHLY CONTROLLABLE CLAY/CNT SUPERSTRUCTURES BY A MODIFIED LANGMUIR-SCHAEFER METHOD  
N. Karouta, N. Chalmes, A. Kouloumpis, K. Spyrou, P. Zigouri, P. Stathi, T. Tsoufis, D. Gournis and P. Rudolf
- P30 THEORETICAL STUDY OF  $\text{H}_2\text{S}$  INTERACTION WITH FUNCTIONALIZED BENZENES WHICH CAN ACT AS LINKERS IN METAL ORGANIC FRAMEWORKS  
M. B. Tsanai, E. Klontzas and G.E. Froudakis
- P31 THEORETICAL STUDY OF  $\text{CH}_4$  INTERACTION WITH ORGANIC LINKERS OF MOFS  
P. Siginou, E. Klontzas and G.E. Froudakis

- P32 SUPRAMOLECULAR ISOMERS, WATER CLUSTERS AND SOLVENT-MEDIATED TRANSFORMATIONS IN A SERIES OF LANTHANIDE MOFS  
Adonis Michaelides and Stavroula Skoulika
- P33 WETTING MEASUREMENTS ON POROUS SURFACES UPON BACKPRESSURE APPLICATION  
E. Rizos, N. Apostolaras, N. Vourdas, E. Tsampasis and V.N. Stathopoulos
- P34 PREPARATION AND CHARACTERIZATION OF CERAMIC BEADS WITH HIERARCHICAL POROSITY FABRICATED BY A PHASE INVERSION TEMPLATING METHOD  
Vasiliki Chalkia, Elena Marathoniti, Pavlos Pandis, Stella Sklari, Vassilis Stathopoulos
- P35 EVALUATION OF POLYMER ELECTROLYTE NANOCOMPOSITES USING A NEW SULFONATED ORGANOSILICA LAYERED MATERIAL  
Lamprini Boutsika, Apostolos Enotiadis, Isabella Nicotera, Cataldo Simari, Georgia Charalambopoulou and Theodore Steriotis
- P36 SYNTHESIS AND CHARACTERIZATION OF CLAY-BASED FILLERS THROUGH THE ORGANIC MODIFICATION OF MONTMORILLONITE  
Lamprini Boutsika, Apostolos Enotiadis, Andreas Sapalidis, Georgia Charalambopoulou, Theodore Steriotis
- P37 FLOW OF NANOBUBBLES THROUGH POROUS MEDIA: THE EFFECT ON PLANT GROWTH  
A. Th. Varoutoglou, G. A. Bomis, T. Merou, G. Varsamis, E. K. Karapatzak, E.D.Michailidi, R.I. Kosheleva, E. P. Favvas, A. Ch. Mitropoulos
- P38 SURFACE MODIFICATION OF FLY ASH AND ITS INCORPORATION IN POLYSTYRENE-BLOCK-POLYBUTADIENE COPOLYMERS  
E. Skoura, A. Karanastasis, A. Z. Stimoniaris, A. Avgeropoulos, M. A. Karakassides, D. Gournis
- P39 HIERARCHICAL POROUS CARBON SUPPORTED COPPER CATALYST FOR NO REDUCTION  
M.K. Antoniou, K. Spyrou, L. Esteves, A. Papavasiliou, Z. Sideratou, A. Enotiadis, F. Katsaros, E. Giannelis, D. Gournis
- P40 EFFECT OF MONTMORILLONITE CLAY FILLERS ON POLYMER BLENDS FOR COATINGS APPLICATIONS  
K. Kolovos, L. Boutsika, A. Enotiadis, K. Krassa, C. Varelas, E. Adler, T. Steriotis, G. Charalambopoulou
- P41 INTERPRETING RESEARCH EFFORTS ON NANOMATERIALS  
A.A. Moutzouroglou, R.I. Kosheleva, E.D. Michailidi, E.P. Favvas, A. Vairis, A.Ch. Mitropoulos
- P42 HYPERBRANCHED POLYETHYLENEIMINE TOWARDS THE DEVELOPMENT OF HOMOGENEOUS AND HIGHLY POROUS CuO-CeO<sub>2</sub>-SiO<sub>2</sub> CATALYTIC MATERIALS  
A. Papavasiliou, D. Tsiourvas, E. G. Deze, S. K. Papageorgiou, F. K. Katsaros, E. Poulakis, C. J. Philippopoulos, N. Boukos, Q. Xin,

P. Cool

- P43 METAL LOADED NANOPOROUS SILICAS WITH TAILOR-MADE PROPERTIES THROUGH HYPERBRANCHED POLYMER ASSISTED TEMPLATING APPROACHES  
E. G. Deze, A. Papavasiliou, S. K. Papageorgiou, F. K. Katsaros, E.P. Kouvelos, Q. Xin, J.L. Nyalosaso, P. Cool
- P44 A FACILE SYNTHETIC APPROACH BASED ON STAUDENMAIER'S METHOD TO HYDROPHILIC OXIDIZED BUCKMINSTERFULLERENE AND ITS DERIVATIVES  
Panagiota Zygouri, Konstantinos Spyrou, Efstratia Mitsari, María Barrio, Roberto Macovez, Dimitrios Gournis and Petra Rudolf
- P45 MESOPOROUS SILICA AND CARBON NANOPARTICLES AS REINFORCING AGENTS OF EPOXY POLYMERS  
P.I. Xidas, D.J. Giliopoulos and K.S. Triantafyllidis
- P46 EFFECT OF ZEOLITE STRUCTURE & ACIDITY ON N-HEXADECANE HYDROISOMERIZATION OVER SUPPORTED Pt CATALYSTS  
C. Tsaridou, A. Yopez, S.A. Karakoulia, K.S. Triantafyllidis
- P47 ΥΠΟΣΤΥΛΩΜΕΝΟ ΓΡΑΦΕΝΙΟ ΜΕ ΠΟΛΥΟΞΟΚΑΤΙΟΝΤΑ ΑΡΓΙΛΙΟΥ  
K. Spyrou, E. Thomou, A. Enotiadis, E. Diamanti, F. K. Katsaros, Z. Sideratou, D. Gournis
- P48 IMPACT OF USING Ce (III) OR Ce (IV) PRESURSORS ON CERIA SYNTHESIS WITH THE USE OF SWELLABLE POLYMERIC GELS AS REMOVABLE SCAFFOLDS  
C. A. Papatryfonos, and C.R Theocharis
- P49 ΤΡΟΠΟΠΟΙΗΜΕΝΑ ΛΕΙΤΟΥΡΓΙΚΑ ΜΕΣΟΠΟΡΩΔΗ ΥΛΙΚΑ ΜΕ ΚΒΑΝΤΙΚΕΣ ΨΗΦΙΔΕΣ ΚΑΙ ΣΥΡΜΑΤΑ  
Anastasia Vassilakopoulou, Vasilios Georgakilas and Ioannis Koutselas
- P50 NOVEL MESOPOROUS MIXED-LIGAND MOFS  
C. T. Sartsidou, I. Spanopoulos, P. Xydias, Ch. Tampaxis, T.A Steriotis and P. N. Trikalitis
- P51 FUNCTIONALIZED Ln<sup>3+</sup> - BASED METAL ORGANIC FRAMEWORKS WITH FCU TOPOLOGY FOR GAS STORAGE APPLICATIONS  
S. Vlachaki, C. Gryparis, P. N. Trikalitis
- P52 EFFICIENT PHOTOCATALYTIC REDUCTION OF HEXAVALENT CHROMIUM WITH A PHLOROGLUCINOL BASED MICROPOROUS POLYMERIC ORGANIC FRAMEWORK SOLID  
V. Kostas, M. Baikousi, K. Dimos, K. C. Vasilopoulos, I. Koutselas, M. A. Karakassides

P53 LOW TEMPERATURE SYNTHESIS AND CHARACTERIZATION OF ORDERED MESOPOROUS CARBONS WITH HIGH SURFACE AREAS  
V. Kostas, M. Baikousi, A. Bourlinos, A. Avgeropoulos, M. A. Karakassides