

# Poster Program

**Sunday, May 8<sup>th</sup> 2011, 18:30-20:00**

## Poster Session 1

**Topics: Biomaterials, biomimetics and nanomedicines  
Nanocatalysis and reaction control**

- [P1.01] The effect of polyvinyl alcohol additive and sintering temperature on hydroxyapatite coating on 316L stainless steel by dip coating method**  
S. Dedeoglu\*, S. Altintas, *Bogazici University, Turkey*
- [P1.02] Immobilization of uricase in bioinspired Langmuir-Blodgett films of stearic acid for uric acid sensing**  
N.C.M. Zanon, L. Caseli\*, *Universidade Federal de Sao Paulo, Brazil*
- [P1.03] Characterisation of nanomaterials**  
E. Gubbins<sup>1</sup>, D. Brown<sup>3</sup>, V. Stone<sup>1</sup>, M. Monopoli<sup>2</sup>, I. Lynch<sup>2</sup>, <sup>1</sup>*Heriot-Watt University, UK*, <sup>2</sup>*University College Dublin, Ireland*, <sup>3</sup>*Napier University, UK*
- [P1.04] Development of bioactive and corrosion resistant organic- inorganic hybrid sol-gel coatings on Ti-6Al-4V surfaces**  
A.A. El hadad<sup>1</sup>, A. Jiménez-Morales<sup>2</sup>, V. Barranco<sup>3</sup>, E. Peón<sup>4</sup>, J.C. Galván<sup>1</sup>, <sup>1</sup>*Centro Nacional de Investigaciones Metalúrgicas (CSIC), Spain*, <sup>2</sup>*Universidad Carlos III de Madrid, Spain*, <sup>3</sup>*Instituto de Ciencia de Materiales de Madrid, Spain*, <sup>4</sup>*Centro de Biomateriales, Universidad de La Habana, Cuba*
- [P1.05] Sol gel derived hybrid materials based on gamma-methacryloxypropyltrimethoxysilane and tetramethyl orthosilicate: Kinetic studies**  
A.A. El hadad<sup>1</sup>, D. Carbonell<sup>2</sup>, A. Jiménez-Morales<sup>2</sup>, V. Barranco<sup>3</sup>, B. Casal<sup>1</sup>, J.C. Galván<sup>1</sup>, <sup>1</sup>*Centro Nacional de Investigaciones Metalúrgicas, Spain*, <sup>2</sup>*Universidad Carlos III de Madrid, Spain*, <sup>3</sup>*Instituto de Ciencia de Materiales de Madrid (CSIC), Spain*
- [P1.06] Experimental design approach in the development of optimized nanoparticulate systems for oral anti-diabetic drugs**  
J.F. Fanguero<sup>\*1</sup>, A.P. Nayak<sup>2</sup>, E.B. Souto<sup>1,3</sup>, <sup>1</sup>*Fernando Pessoa University, Portugal*, <sup>2</sup>*Kuvempu University, India*, <sup>3</sup>*Institute of Biotechnology and Bioengineering, Portugal*
- [P1.07] Collagen based hybrid hydrogels films**  
M. Sahiner<sup>1</sup>, S. Butun<sup>2</sup>, B.O. Bitlisli<sup>1</sup>, <sup>1</sup>*Ege University, Turkey*, <sup>2</sup>*Canakkale Onsekiz Mart University, Turkey*
- [P1.08] Investigating the structure-function relationship of mixed phospholipid liposomes for potential use in drug delivery systems: Effect of fatty acid chain length and addition of bioactive lipids**  
H.J. Rutherford\*, M.A. Rogers, N.H. Low, *University of Saskatchewan, Canada*
- [P1.09] Electrolyte ions at the surface of bacillus subtilis: An XPS study**  
L. Leone, S. Sjöberg, A. Shchukarev\*, *Umeå University, Sweden*
- [P1.10] Study of mechanisms of rifampicine release in sol-gel derived siloxane-PMMA nanocomposites used as drug delivery systems**  
B. Ferreira<sup>1</sup>, F.S.Pais<sup>1</sup>, K. Dahmouche<sup>\*1</sup>, C.M. Paranhos<sup>2</sup>, A.S. Gomes<sup>1</sup>, <sup>1</sup>*Federal University of Rio de Janeiro (UFRJ), Brazil*, <sup>2</sup>*Federal University of São Carlos (UFSCAR), Brazil*
- [P1.11] The effect of water on structuring edible oils by self-assembling mixtures of β-sitosterol and γ-oryzanol.**  
A. Bot<sup>\*1</sup>, R. den Adel<sup>1</sup>, H. Sawalha<sup>2</sup>, P. Venema<sup>2</sup>, E. Flöter<sup>1</sup>, <sup>1</sup>*Unilever R&D Vlaardingen, The Netherlands*, <sup>2</sup>*Wageningen University, The Netherlands*
- [P1.12] Formulation of colloidal nanosilver for controlled release of biologically active silver ion**  
J. Liu, R. Hurt\*, *Brown University, USA*
- [P1.13] Dimercaptosuccinic acid-coated iron oxide nanoparticles for cancer therapy**  
C.J. Serna<sup>\*1</sup>, R. Mejias<sup>2</sup>, F.J. Lázaro<sup>3</sup>, L. Gutierrez<sup>3</sup>, D.F. Barber<sup>2</sup>, M.P. Morales<sup>1</sup>, <sup>1</sup>*Instituto de Ciencia de Materiales de Madrid/CSIC, Spain*, <sup>2</sup>*Centro Nacional de Biotecnología/CSIC, Spain*, <sup>3</sup>*Universidad de Zaragoza, Spain*
- [P1.14] Functionalized polyelectrolytes nanocapsules with emulsion core for targeted drug delivery**  
K. Szczepanowicz<sup>\*1</sup>, H.J. Hoel<sup>2</sup>, G. Gaudernack<sup>2</sup>, P. Warszynski<sup>1</sup>, <sup>1</sup>*Institute of Catalysis and Surface Chemistry PAS, Poland*, <sup>2</sup>*Oslo University Hospital, Norway*
- [P1.15] Physicochemical characterization of stearyl alcohol-based solid lipid nanoparticles**  
M.D. Howard<sup>\*1</sup>, X. Lu<sup>2</sup>, T.D. Dziubla<sup>1</sup>, M. Jay<sup>2</sup>, <sup>1</sup>*University of Kentucky, USA*, <sup>2</sup>*University of North Carolina at Chapel Hill, USA*

- [P1.16] Investigation of propranolol release mechanisms in sol-gel derived siloxane-PPO nanocomposites used as drug delivery systems**  
 R.O. Silva<sup>1</sup>, K. Dahmouche<sup>\*1</sup>, J.H.C. Pereira<sup>1</sup>, C.M. Paranhos<sup>2</sup>, C.E.M. Carvalho<sup>3</sup>, <sup>1</sup>Federal University of Rio de Janeiro (UFRJ), Brazil, <sup>2</sup>Federal University of São Carlos (UFSCAR), Brazil, <sup>3</sup>State University of West Zone (UEZO), Brazil
- [P1.17] Comparative study of the effect of different nanoparticles on Poly( $\epsilon$ -caprolactone) nanocomposites**  
 M. Monteiro\*, M.I. Tavares, Universidade Federal do Rio de Janeiro, Brazil
- [P1.18] Investigation of indomethacin-loaded nanoemulsion system for transdermal delivery**  
 N. Barakat\*, E. Fouad, A. El-Medany, King Saud University, Saudi Arabia
- [P1.19] Self-assembly, drug delivery behaviors and cytotoxicity evaluation of amphiphilic chitosan-graft-poly(1, 4-dioxan-2-one) copolymers**  
 Y.L. Zhai, D.L. Tang, X.L. Wang\*, Y.Z. Wang, College of Chemistry, China
- [P1.20] Modification and characterization of O-acetyl galactoglucomannans**  
 V. Kisonen\*, P. Eklund, A. Sundberg, J. Hemming, A. Pranovich, M. Auer, R. Sjöholm, V. Aseyev, S. Willför, Åbo Akademi University, Finland
- [P1.21] Osteoblast behaviors on titanium surfaces with multi-scale microstructures**  
 B. Feng\*, L. Gao, X. Lu, J. Wang, S. Qu, J. Weng, Southwest Jiaotong University, China
- [P1.22] Development of the o/w nanoemulsions for application as drug delivery carriers**  
 V.E.B. Campos<sup>\*1</sup>, C.R.E. Mansur<sup>1</sup>, E. Ricci-Júnior<sup>2</sup>, <sup>1</sup>Instituto de Macromoléculas - IMA, Rio de Janeiro, Brazil, <sup>2</sup>Faculdade de Farmácia - FF, Rio de Janeiro, Brazil
- [P1.23] Adsorption of PEO-PPO-PEO surfactant polymers on a gold substrate**  
 Y.B. Liou, R. Tsay\*, National Yang-Ming University, Taiwan
- [P1.24] Organic hybrid iron oxide particles for application in tumor diagnosis and hyperthermia**  
 F. Chau<sup>\*1</sup>, H. Basti<sup>1</sup>, M. Levy<sup>2</sup>, H. Hanini<sup>1,3,4</sup>, J. Gavard<sup>3,4</sup>, S. Benderbous<sup>5</sup>, F. Gazeau<sup>2</sup>, S. Ammar<sup>1</sup>, <sup>1</sup>Université Paris Diderot, CNRS-UMR 7086, France, <sup>2</sup>Université Paris Diderot, CNRS-UMR 7057, France, <sup>3</sup>Université Paris Descartes, France, <sup>4</sup>INSERM U1016, France, <sup>5</sup>INSERM UMRS 825 France
- [P1.25] Specially designed CeO<sub>2</sub> nanoparticles used in an in vitro model of Alzheimer's disease**  
 A.M. Monaco<sup>\*1</sup>, B. D'Angelo<sup>1</sup>, R. Gentile<sup>1</sup>, S. Das<sup>2</sup>, S. Seal<sup>2</sup>, A. Cimini<sup>1</sup>, S. Santucci<sup>1</sup>, <sup>1</sup>University of L'Aquila, Italy, <sup>2</sup>University of Central Florida, USA
- [P1.26] Electro spray coating of capsulated tetracycline (TC) in poly-lactic acid (PLA) for dental implant**  
 S.K. Moon, M.K. Kang, K.M. Kim, K.N. Kim\*, Yonsei University, South Korea,
- [P1.27] Studies of wettability alteration and adsorption on surfaces and sandstone rocks by biosurfactant produced by *Bacillus subtilis***  
 H.S. Al-Sulaimani\*, Y.M. Al-Wahaibi, S.N. Al-Bahry, A.K. Elshafie, A.S. Al-Bemani, S.J. Joshi, Sultan Qaboos University, Oman
- [P1.28] Pine needles: A low cost adsorbent for the purification of potable water**  
 V. Agnihotri\*, K. Kumar, L.M.S. Palni, G.B. Pant Institute of Himalayan Environment and Development, India
- [P1.29] The studying of adsorption of antifreeze glycoprotein fraction 7 on silica**  
 A. Karami, Iranian Academic Center for Education, Iran
- [P1.30] The wettability of Al<sub>2</sub>O<sub>3</sub> (or Al<sub>2</sub>O<sub>3</sub>/DPPC) surface in the presence of lipase *Candida Cylindracea* enzyme**  
 A.E. Wiacek, M. Curie-Skłodowska University, Poland
- [P1.31] Mesoporous silica/apatite nanomaterials with incorporated organic groups**  
 A. Borówka\*, M. Curie-Skłodowska University, Poland
- [P1.32] Protein colloids for foods**  
 R. de Vries, <sup>1</sup>Wageningen University, The Netherlands, <sup>2</sup>Top Institute Food and Nutrition, The Netherlands
- [P1.33] Bioprecipitates formed at the interface: Viable *Shewanella putrefaciens* cells – aqueous Mn(II) over 30 days – FTIR, EXAFS, XPS and SEM characterization**  
 N. Chubar<sup>\*1</sup>, A. Shchukarev<sup>2</sup>, T. Behrends<sup>1</sup>, <sup>1</sup>Utrecht University, The Netherlands, <sup>2</sup>Umeå University, Sweden
- [P1.34] The correlation between albumin adsorption and cell behaviour on unmodified and sulfonated polystyrene surfaces**  
 M. Nowak-Wyrzykowska<sup>\*1</sup>, R. Kolos<sup>2,3</sup>, A. Szczepankiewicz<sup>4</sup>, J. Dobkowski<sup>2</sup>, J. Kaminski<sup>5</sup>, H. Kowalczyńska, <sup>1</sup>Medical Centre for Postgraduate Education, Poland, <sup>2</sup>Institute of Physical Chemistry of the Polish Academy of Sciences, Poland, <sup>3</sup>Cardinal Stefan Wyszyński University, Poland, <sup>4</sup>Nencki Institute of Experimental Biology of the Polish Academy of Sciences, Poland, <sup>5</sup>Industrial Chemistry Research Institute, Poland

- [P1.35] Protein adsorption on alumina and silica nanoparticle surfaces tuned with acidic and basic surface groups**  
F. Meder\*, T. Daberkow, L. Treccani, K. Rezwan, *University of Bremen, Germany*
- [P1.36] The preparation of solid core drug delivery systems**  
K.T. Mader\*, V. Trivedi, J.C. Mitchell, M.J. Snowden, *Universtiy of Greenwich, UK*
- [P1.37] The incidence of the oil nature on the behaviour of nanocapsules prepared via nanoprecipitation and via emulsification-diffusion**  
C.E. Mora-Huertas\*, H. Fessi, A. Elaissari, *Université Lyon, France*
- [P1.38] Conamore: Contact angle molecular recognition**  
D. Maiolo<sup>1</sup>, G. Oliviero<sup>1</sup>, I. Colombo<sup>2</sup>, D. Leali<sup>1</sup>, S. Mitola<sup>1</sup>, P. Bergese<sup>\*1</sup>, <sup>1</sup>*University of Brescia, Italy*, <sup>2</sup>*Eurand S.p.A., Italy*
- [P1.39] Interaction between various cellulose nanofibrils and polymers**  
M. Österberg\*, P. Eronen, J. Laine, *Aalto University, Finland*
- [P1.40] Fabrication of luminescent immunosensor by incorporation of CdSe quantum dots in polystyrene nanoparticles**  
S. Kim\*, Y.S. Choi, D.W. Lee, *Chonnam National University, South Korea*
- [P1.41] Colloids as tools to explore microbial adhesion**  
O. Galy<sup>1</sup>, J. Geng<sup>1</sup>, C. Beloin<sup>4</sup>, J.M. Ghigo<sup>4</sup>, N. Henry<sup>\*1,2</sup>, <sup>1</sup>*Institut Curie, France*, <sup>2</sup>*CNRS, France*, <sup>3</sup>*UPMC, France*, <sup>4</sup>*Institut Pasteur, France*
- [P1.42] Stabilization of allicin in solution by biopolymers and production of alliin loaded microparticles by spray drying**  
O. Kaspar\*, P. Kovacik, F. Stepanek, *ICT Prague, Czech Republic*
- [P1.43] Do lipopolysaccharides protect bacteria against damages caused by interaction with polyethyleneimine ?**  
M.E. Krapf\*, B.S. Lartiges, C. Merlin, G. Francius, J. Ghanbaja, J.F.L. Duval, *Nancy Université, France*
- [P1.44] ODN based biosensors: Nanoparticle supported sensor chips and probe-ligand binding force measurements for separation and detection purposes**  
M.O. Caglayan<sup>1</sup>, N. Atar<sup>\*2</sup>, Z. Ustundag<sup>2</sup>, A.O. Solak<sup>3</sup>, <sup>1</sup>*Cumhuriyet University, Turkey*, <sup>2</sup>*Dumlupınar University, Turkey*, <sup>3</sup>*Kyrgyz-Turk Manas University, Kyrgyzstan*
- [P1.45] "Stealth" core-shell polymeric nanoparticles as a robust drug delivery platform for combinatory therapy**  
E. Jäger, A. Jäger\*, K. Ulbrich, B. Ríhová, P. Štepánek, *Academy of Sciences of the Czech Republic, Czech Republic*
- [P1.46] Silica nanoparticles Co-encapsulating gadolinium oxide and horse radish peroxidase for imaging and therapeutic applications**  
N. Gupta, R.K. Sharma\*, *University of Delhi, India*
- [P1.47] Calcium carbonate particles surface charge and shape control by sodium polyacrylates**  
A. Jada\*, S. Erlenmeyer, *IS2M-CNRS-UHA, France*
- [P1.48] Bioinspired hybrid materials from lipids and nucleic acids: Molecular recognition drives structural properties at the nanoscale**  
D. Berti\*, S. Milani, C. Montis, P. Baglioni, *CSGI and University of Florence, Italy*
- [P1.49] Nucleolipoplexes: Interaction with GUV as cell membrane model systems. A Confocal Microscopy study.**  
C. Montis<sup>1,2</sup>, S. Milani<sup>1,2</sup>, P. Baglioni<sup>1,2</sup>, D. Berti<sup>\*1,2</sup>, <sup>1</sup>*University of Florence, Italy*, <sup>2</sup>*CSGI, Italy*
- [P1.50] Modification of gelatin properties by radiation induced cross-linking**  
P.Y. Inamura, F.H. Kraide, E.A.B. Moura, N.L.d. Mastro\*, *Nuclear and Enwergy Research Institute (IPEN-CNEN/SP), Brazil*
- [P1.51] Hyaluronic acid colloidal particles: The influence of preparation process on the capability for encapsulation of *A. chiba* Verlot vegetal extract and wound healing activity**  
V.F. Souza<sup>1</sup>, F. Izquierdo<sup>1</sup>, M.P. Jorge<sup>1,2</sup>, M.A. Foglio<sup>1,2</sup>, M.H. Santana<sup>\*1</sup>, <sup>1</sup>*University of Campinas, Brazil*, <sup>2</sup>*CPQBA/University of Campinas, Brazil*
- [P1.52] Surface crowding dependent enzymatic activity of trypsin immobilized on ultrafine CuS nanoparticles**  
B. Saha\*, J. Saikia, S. Chakraborty, G. Das, *Indian Institute of Technology Guwahati, India*
- [P1.53] Colloidal stability of emulsions and nanoparticles in pharmaceutics**  
M. Fleury, Y. Lefevre\*, C. Tisserand, L. Brunel, G. Meunier, *Formulaction, France*

- [P1.54] Kinetics of TNT degradation in the presence zero valent iron nanocatalyst**  
A. Badawi<sup>1</sup>, S. Shaban<sup>\*1</sup>, S. Ahmed<sup>1</sup>, S. Morsy<sup>1,2</sup>, <sup>1</sup>Taif University, Saudi Arabia, <sup>2</sup>Ain Shams University, Egypt, <sup>3</sup>National Research Center, Egypt
- [P1.55] Modelling of bimetallic nanoparticles synthesis in microemulsions: Mechanism and structure**  
C. Tojo<sup>\*1</sup>, M. de Dios<sup>1</sup>, M.A. López-Quintela<sup>2</sup>, <sup>1</sup>University of Vigo, Spain, <sup>2</sup>University of Santiago de Compostela, Spain
- [P1.56] Utilization of smart hydrogel-metal composites as catalysis media**  
N. Sahiner\*, O. Ozay, S. Butun, A. Kaynak, V. Demir, B. Dibek, Canakkale Onsekiz Mart University, Turkey
- [P1.57] Organometallic approach for the synthesis of water-soluble metal nanoparticles and application in catalysis**  
K. Philippot<sup>\*1,2</sup>, P.J. Debouttière<sup>1,2</sup>, B. Chaudret<sup>1,2</sup> A. Denicourt-Nowicki<sup>3</sup>, A. Roucoux<sup>3</sup>, <sup>1</sup>CNRS, <sup>2</sup>Université de Toulouse, France, <sup>3</sup>ENSCR Université de Rennes, France
- [P1.58] Highly efficient visible light oxide semiconductor photocatalysts for the degradation of organic dye pollutants**  
T.Z. Zhang\*, Y.H. Liang, L. Shang, D.H. Zhang, T. Bian, Technical Institute of Physics and Chemistry, Chinese Academy of Sciences, China
- [P1.59] Preparation of surfactant enhanced metal dispersed carbon nanofibers for the adsorption of persistent gaseous organic pollutants**  
M. Bikshapathi\*, A. Sharma, N. Verma, Indian Institute of Technology Kanpur, India
- [P1.60] Electrocatalytic reduction of nitrite species on modified electrode with Cu-ZSM5**  
M.A. Oliver-Tolentino, B.M. Angeles-Cuellar, A. Guzman-Vargas\*, A. Manzo-Robledo, E.M. Arce-Estrada, ESIQIE-IPN, Mexico
- [P1.61] Synthesis and characterization of ruthenium nanoparticles stabilized with N-heterocyclic carbenes**  
P. Lara<sup>\*1</sup>, F. Novio<sup>1</sup>, K. Philippot<sup>1</sup>, B. Chaudret<sup>1</sup>, O. Rivada-Wheelaghan<sup>2</sup>, S. Conejero<sup>2</sup>, <sup>1</sup>Laboratoire de Chimie de Coordination CNRS, France, <sup>2</sup>Universidad de Sevilla-CSIC, Spain
- [P1.62] Reduced graphene oxide-titanate hybrid with tunable morphologies by alkali-solvothermal and post-treated temperatures**  
T.D. Nguyen Phan, V.H. Pham, J. Chung, E. Shin\*, <sup>1</sup>University of Ulsan, South Korea
- [P1.63] On the application of concepts from colloid chemistry to materials design: Aluminium-derivatised monodisperse mesoporous silica nanospheres with a high catalytic activity in liquid phase esterification prepared by a one-step route.**  
J.L. Nyalosaso\*, G. Derrien, C. Charnay, L.C. De Menorval, J. Zajac, <sup>1</sup>University of Montpellier, France
- [P1.64] Fabrication of dense monodisperse titania microspheres**  
D. Schunk<sup>\*1</sup>, F. Marlow<sup>1,2</sup>, <sup>1</sup>Max-Planck-Institut fuer Kohlenforschung, Germany, <sup>2</sup>Center for Nanointegration Duisburg-Essen (CeNIDE), Germany
- [P1.65] photocatalytic behaviour of electrochemically synthesized copper clusters**  
N. Vilar Vidal<sup>\*1</sup>, M.C. Blanco Varela<sup>1</sup>, M.A. López Quintela<sup>1</sup>, J. Rivas Rey<sup>1</sup>, <sup>1</sup>University of Santiago de Compostela, Spain, <sup>2</sup>INL-International Iberian Nanotechnology Laboratory, Portugal
- [P1.66] Tuneable palladium nanocatalysts for the selective oxidation of allylic alcohols**  
C.V. Ellis<sup>\*1</sup>, A.F. Lee<sup>1</sup>, K. Wilson<sup>1</sup>, M.A. Newton<sup>2</sup>, C.M.A. Parlett<sup>1</sup>, T.H. Lim<sup>3</sup>, <sup>1</sup>Cardiff University, UK, <sup>2</sup>European Synchrotron Radiation Facility, France, <sup>3</sup>University of Oxford, UK
- [P1.67] Nano silica from rice husk ash as a support material for heteropoly acids: Heterogeneous nano catalyst**  
E. Rafiee\*, S. Shahebrahimi, Razi University, Iran
- [P1.68] Synthesis of nano supported heteropoly compounds as efficient catalysts for Friedlander reaction**  
E. Rafiee\*, F. Khajoei Nejad, M. Joshaghani, S. Eavani, Razi University, Iran
- [P1.69] A new nano Bismuth(III) salophen catalyst for green and efficient catalytic oxidation of benzoin to benzils**  
M. Joshaghani\*, M. Jafari, E. Rafiee, M. Faizi, <sup>1</sup>Razi University, Iran
- [P1.70] Investigation of photocatalytic and photoelectrocatalytical performance of titania composite arrays of nanoparticle/ nanotube**  
L. Yu, S. Yuan<sup>\*</sup>, L.Y. Shi, Y. Zhao, J.H. Fang, Z.Y. Wang, Shanghai University, China
- [P1.71] Preparation, characterization and investigation photocatalitic properties Of Cu,Nd-codoped TiO<sub>2</sub> nanocomposites**  
B. Khodadadi\*, M. Sabeti, S. Moradi, P. Aberomand Azar, M.E. Olya, S. Raeis Farshid, University of Qom, Iran

- [P1.72] **Investigation on the used Co/SiO<sub>2</sub> catalysts from Fischer-Tropsch synthesis at varied pressures by X-ray Absorption Spectroscopy**  
 S. Chotiwat<sup>\*1</sup>, P. Viravathana<sup>1</sup>, S. Kityakarn<sup>1</sup>, Y. Pooarporn<sup>2</sup>, <sup>1</sup>Kasetsart University, Thailand, <sup>2</sup>Synchrotron Light Research Institute (Public Organization), Thailand
- [P1.73] **Effect of synthesis conditions on CVC-made TiO<sub>2</sub> nanoparticles and those photocatalytic performances for methylene blue**  
 S. Chin\*, E. Park, J. Jurng, Korea Institute of Science and Technology, South Korea
- [P1.74] **Silica supported cobalt catalysts for Fischer-Tropsch synthesis prepared by the developed method from co-precipitation and incipient wetness impregnation techniques**  
 S. Prangsri-aroon<sup>\*1</sup>, P. Viravathana<sup>1</sup>, A. Worrayingyong<sup>1</sup>, W. Kungwansupamonkon<sup>2</sup>, O. Deutschmann<sup>3</sup>, H. Schulz<sup>3</sup>, <sup>1</sup>Kasetsart University, Thailand, <sup>2</sup>National Science and Technology Development Agency, Thailand, <sup>3</sup>Karlsruhe Institute of Technology, Germany
- [P1.75] **Preparation and characterization of V<sub>2</sub>O<sub>5</sub>/TiO<sub>2</sub> catalysts synthesized by a chemical vapor condensation method and their catalytic oxidation of 1,2-dichlorobenzene**  
 J. Jurng\*, S. Chin, E. Park, Korea Institute of Science and Technology, South Korea
- [P1.76] **Tuning morphology and catalytic activity of CeO<sub>2</sub>**  
 G. Ranga Rao\*, S.K. Meher, Indian Institute of Technology Madras, India
- [P1.77] **Investigation of Ag nanoparticles produced by nanosecond pulsed laser ablation in water**  
 A.S. Nikolov\*, N.N. Nedyalkov, R.G. Nikov, P.A. Atanasov, M.T. Alexandrov, D.B. Karashanova, Bulgarian Academy of Sciences, Bulgaria
- [P1.78] **Synthesis of mullite at low temperature in an aqueous medium with different ethylene glycol content**  
 L.S. Cividanes, T.M.B. Campos, D.D. Brunelli, G.P. Thim\*, Instituto Tecnológico de Aeronáutica, Brazil
- [P1.79] **Metal clusters: A key missing point in the synthesis of gold nanorods**  
 Y.A. Attia<sup>1,2</sup>, C. Vázquez-Vázquez<sup>1</sup>, M.C. Blanco<sup>\*1</sup>, M.A. López-Quintela<sup>1</sup>, <sup>1</sup>University of Santiago de Compostela, Spain, <sup>2</sup>Cairo University, Egypt
- [P1.80] **Beyond the nano-world: Exploring novel catalytic properties of sub-nano-materials**  
 D. Buceta<sup>1</sup>, J. Selva<sup>2</sup>, S.E. Martinez<sup>2</sup>, G. Egea<sup>2</sup>, M.C. Blanco<sup>\*1</sup>, J. Rivas<sup>1</sup> and M.A. Lopez-Quintela<sup>1</sup>, <sup>1</sup>University of Santiago de Compostela, Spain, <sup>2</sup>Universitat de Barcelona, Spain
- [P1.81] **Microstructure and cell compatibility of Hydroxyapatite/Titania composite coating**  
 M.K. Kang, S.K. Moon\*, K.M. Kim, Y.K. Lee, K.N. Kim, Yonsei University, South Korea
- [P1.82] **The effect of polysorbate surfactants on the formation and stability of lipid nanostructures**  
 W.H. Lim, Malaysia Palm Oil Board, Malaysia
- [P1.83] **Additives effects of PVP, CMC, HPC on the photocatalitic activity of Ag-doped TiO<sub>2</sub> nanocomposite**  
 S. Raeis Farshid, S. Moradi Dehaghi, P. Aberomand Azar, M.E. Olya, B. Khodadadi\*, Islamic Azad University of Lahijan, Iran
- [P1.84] **Polymer encapsulated mesoporous carbon particles: A versatile drug delivery vehicle**  
 A. Rammohan\*, L. Tayal, S. Sivakumar, A. Sharma, Indian Institute of Technology, India

**Monday, May 9<sup>th</sup> 2011, 18:30-20:00**

**Poster Session 2**

**Topics: Green nano and colloid chemistry  
Supersolvophobic surfaces, wetting and surface functionalization**

- [P2.01] **Volumetric and diffusion properties of water/surfactant/n-propanol/4-allylanisole micellar systems**  
 M. Fanun, Al-Quds University, Palestinian Territory, Occupied
- [P2.02] **Particle size reduction of Bentonite by mechanical grinding : Effect on the structure, shape and particle size distribution**  
 L.A. Al Juhaiman, W.Q. Mekhamer, M.H. Al Qunaibit\*, King Saud University, Saudi Arabia
- [P2.03] **Synthesis of multi walled carbon nanotube / tungsten oxide nanomaterial and its application for sun-light-induced degradation of rhodamine B**  
 V.K. Gupta<sup>\*1,2</sup>, T.A. Saleh<sup>2</sup>, <sup>1</sup>Indian Institute of Technology Roorkee, India, <sup>2</sup>King Fahd University of Petroleum & Minerals, Saudi Arabia
- [P2.04] **Nanofluids: A new class of materials produced from nanoparticle assemblies**  
 R. Jagannathan, S. Khapli\*, New York University Abu Dhabi, United Arab Emirates
- [P2.05] **Facile synthesis of copper nanoink for applications of low-cost ink-jet printable electronics**  
 J. Xiong, Y. Wang, Q. Gu, Q. Xue, X. Wu\*, Ningbo Institute of Materials Technology & Engineering, China
- [P2.06] **Interaction between micellar bile acid salts and morphine hydrochloride**  
 M. Posa\*, F. Gaal, J. Csanadi, University of Novi Sad, Serbia

- [P2.07] Green synthesis, characterization and thin solid film growth of copper microstructures for nanotechnology**  
M. Veerapandian\*, K. Yun, *Kyungwon University, South Korea*
- [P2.08] Oil binding ability of wheat starch granules in aged or dry-heated wheat flour and the role of this hydrophobicity in cake baking with the flour**  
M. Seguchi\*, M. Ozawa, C. Nakamura, *Kobe Women's University, Japan*
- [P2.09] Microporous carbon and mesoporous metallic copper particles obtained from the heat-treatment process of an organic-inorganic layered nano-hybrid material**  
M. Yeganeh Ghotbi, *University of Malayer, Iran*
- [P2.10] Fractionation of Au nanoparticles by their crystal facet distinction**  
T. Kawai, Y. Imura, C. Morita, H. Endo\*, *Tokyo University of Science, Japan*
- [P2.11] Synthesis and NIR shielding performance of  $\text{Cs}_x\text{WO}_3$  nanoparticles with tungsten bronze structure by solvothermal reactions in ethanol-acetic acid mixed solutions**  
C. Guo, S. Yin, M. Yan, Y. Ando, T. Sato\*, *Tohoku University, Japan*
- [P2.12] Self assembled polysaccharide films as templates for the green synthesis of hematite nanostructures**  
M. Nidhin\*, K.J. Sreeram, B.U. Nair, *Central Leather Research Institute (CSIR), India*
- [P2.13] A new method for the production of colloidal nano-silica.**  
A. Lazaro\*, J. Brouwers, *Technical University of Eindhoven, The Netherlands*
- [P2.14] Schiff base modified silica for metal ion adsorption**  
R. Bunte\*, N. Diteepeng, R. Teerasarunyanon, *Silpakorn University, Thailand*
- [P2.15] Thermodynamic study on influence of denaturant concentrations on molecule conformations of BSA adsorbed on hydrophobic surface at 308 K**  
Y. Zhou<sup>1</sup>, X.P. Geng<sup>\*1</sup>, B.H. Wang<sup>2</sup>, J.J. Peng<sup>1</sup>, <sup>1</sup>*Xi'an Polytechnic University, China*, <sup>2</sup>*Peking University, China*
- [P2.16] Direct methanol fuel cell using Se/Ru core/shell electrodes provide high catalytic activity and stability**  
Z.Y. Shih\*, Z. Yang, Z.H. Lin, H.T. Chang, *National Taiwan University, Taiwan*
- [P2.17] Quantum dot-sensitized solar cells provide power conversion efficiency 4.80%**  
C.Y. Chen\*, Z. Yang, Z.Y. Shih, H.T. Chang, *National Taiwan University, Taiwan*
- [P2.18] Synthesis of CdS nanowires and nanorods using solvothermal process aided by different sulfur sources**  
M.R. Mohammadi\*, P. Dalvand, *Sharif University of Technology, Iran*
- [P2.19] Nucleation kinetics of bimetallic nanoparticles in microemulsions**  
C. Tojo\*, F. Barroso, *University of Vigo, Spain*
- [P2.20] Ordering of FePt nanoparticle superlattice produced by spin-coating using cationic lipid molecules as surfactant**  
H.H. An, J.H. Lee, H.S. Kim, Y.H. Kim, D.K. Choi\*, C.S. Yoon, *Hanyang University, South Korea*
- [P2.21] Oily soil detergency using microemulsion-based formulations: Mechanism of oil detachment**  
S. Chavadej<sup>\*1</sup>, P. Tanthakit<sup>1</sup>, J.F. Scamehorn<sup>2</sup>, D.A. Sabatini<sup>2</sup>, V. Tantayakom<sup>3</sup>, <sup>1</sup>*Chulalongkorn University, Thailand*, <sup>2</sup>*University of Oklahoma, USA*, <sup>3</sup>*PTT Chemical Public Limited, Thailand*
- [P2.22] Removal of trace Cd<sup>2+</sup> using continuous multistage ion foam fractionation: Effect of salt addition**  
V. Rujirawanich<sup>\*1</sup>, S. Chavadej<sup>1</sup>, J.H. O'Haver<sup>2</sup>, R. Rujiravanit<sup>1</sup>, <sup>1</sup>*Chulalongkorn University, Thailand*, <sup>2</sup>*The University of Mississippi, USA*
- [P2.23] Physico-chemical properties of highly dispersed oxide systems precipitated in water and emulsion environment**  
F. Ciesielczyk\*, T. Jasionowski, *Poznan University of Technology, Poland*
- [P2.24] Electrokinetic properties of colloidal hybrid systems SiO<sub>2</sub>/POSS type**  
M. Nowacka, K. Szwarc, F. Ciesielczyk\*, *Poznan University of Technology, Poland*
- [P2.25] Hybrid pigments preparation via adsorption of selected food dyes onto anatase titanium dioxide**  
K. Siwinska-Stefanska, T. Jasionowski\*, *Poznan University of Technology, Poland*
- [P2.26] Influence of ionic strength and electrolyte type on electrokinetic properties of TiO<sub>2</sub> and TiO<sub>2</sub>-SiO<sub>2</sub> mixed oxides**  
M. Nowacka, K. Siwinska-Stefanska, T. Jasionowski\*, *Poznan University of Technology, Poland*
- [P2.27] Modified bitumens derived from particle stabilized emulsions**  
Q. Zhou\*, A. James, *Akzo Nobel Surface Chemistry LLC, USA*
- [P2.28] CdTe nanowires derived from solvothermal process: Controlling the aspect ratio by capping agents**  
M.R. Mohammadi\*, S. Ranjbarzadeh, *Sharif University of Technology, Iran*

- [P2.29] Synthesis and characterization of bismuth ferrite nanoparticles**  
C. Vázquez-Vázquez\*, M.A. López-Quintela, J. Rivas, *University of Santiago de Compostela, Spain*
- [P2.30] Research on conformational change of denatured lysozyme adsorbed onto a moderately hydrophobic surface**  
J.J. Peng, X.P. Geng\*, Y. Zhou, *Xi'an Polytechnic University, China*
- [P2.31] Size controlled synthesis and characterization of red-to-green color tunable Eu<sup>+3</sup> and Tb<sup>+3</sup> codoped Y<sub>2</sub>O<sub>3</sub> nanoparticles**  
T.S. Atabaev\*, H.K. Kim, Y.H. Hwang, *Pusan National University, South Korea*
- [P2.32] Characterization and antioxidative activity of nanostructured lipid carrier**  
J.M. Wang<sup>1,2</sup>, J.G. Tang<sup>1,2</sup>, H.X. Wang<sup>1,2</sup>, X.Y. Deng<sup>1,2</sup>, Q. Xia<sup>\*1,2</sup>, <sup>1</sup>*Southeast University, China*, <sup>2</sup>*Suzhou Key Laboratory of Biomedical Materials and Technology, China*, <sup>3</sup>*Suzhou Nanohealth Biotech Co. Ltd., China*
- [P2.33] Rheological investigations of the effect of the addition of a free non-adsorbing polymer on creaming of sterically stabilized emulsions**  
S. Aben<sup>\*1,2</sup>, C. Holtze<sup>1</sup>, T. Tadros<sup>3</sup>, P. Schurtenberger<sup>4</sup>, <sup>1</sup>*Competence Center Formulation Technology, Germany*, <sup>2</sup>*University of Fribourg, Switzerland*, <sup>3</sup>*Nash Grove Lane, UK*, <sup>4</sup>*Lund University, Sweden*
- [P2.34] Laccase from *Paraconiothyrium variabile* for green synthesis of gold nanoparticles**  
N. Nafissi-Varcheh<sup>\*1</sup>, M.A. Faramarzi<sup>2</sup>, H. Forootanfar<sup>2</sup>, <sup>1</sup>*Shahid Beheshti University of Medical Sciences, Iran*, <sup>2</sup>*Tehran University of Medical Sciences, Iran*
- [P2.35] Preparation and thermal stability of fluoroalkyl end-capped oligomers/silica nanocomposites-encapsulated of a variety of low molecular weight aromatic compounds**  
H. Sawada\*, *Hirosaki University, Japan*
- [P2.36] Charge, size and concentration effects on colloid diffusion in rock**  
U. Alonso<sup>1</sup>, T. Missana<sup>1</sup>, A. Patelli<sup>2</sup>, M. Garcia-Gutierrez<sup>1</sup>, A. Benedicto<sup>\*1</sup>, N. Albaran<sup>1</sup>, <sup>1</sup>*CIEMAT, Spain*, <sup>2</sup>*CIVEN, Italy*, <sup>3</sup>*LNL-INFN, Italy*
- [P2.37] Non-traditional (alkoxide-free) sol-gel synthesis of the new inorganic anion exchangers based on Mg-Al hydrous oxides and characterization of their surface & adsorptive properties**  
N. Chubar, *Utrecht University, The Netherlands*
- [P2.38] Growth and formation dynamics of acentric dielectric nanoparticles in reverse microemulsions probed by Hyper-Rayleigh Scattering measurements**  
M. El Kass<sup>\*1</sup>, C. Joulaud<sup>1</sup>, L. Houf<sup>1</sup>, Y. Mugnier<sup>1</sup>, R. Le Dantec<sup>1</sup>, R. Hadji<sup>1,2</sup>, <sup>1</sup>*Université de Savoie, France*, <sup>2</sup>*Université Henri Poincaré-Nancy, France*, <sup>3</sup>*Université de Savoie, France*, <sup>4</sup>*Université de Lomé, Togo*
- [P2.39] Chemical speciation of ammonia and amino-group at mineral-water interfaces**  
A. Shchukarev\*, K. Shimizu, M. Ramstedt, J.F. Boily, *Umeå University, Sweden*
- [P2.40] The hydrothermal synthesis of a stable dispersion of TiO<sub>2</sub> nanoparticles with a high anatase content**  
B. Souvereyns<sup>\*1</sup>, A. Kelchtermans<sup>1</sup>, C. De Dobbelaere<sup>1</sup>, V. Meynen<sup>1,2</sup>, P. Cool<sup>1,2</sup>, A. Hardy<sup>1</sup>, M.K. Van Bael<sup>1</sup>, <sup>1</sup>*University of Hasselt, Belgium*, <sup>2</sup>*University of Antwerp, Belgium*
- [P2.41] Relevance of surface chemistry of inorganic colloids in liquid-phase processing**  
B. Ferrari<sup>\*1</sup>, M. Verde<sup>1</sup>, I. Gonzalo-Juan<sup>1</sup>, J. Escribano<sup>1</sup>, A.C. Caballero<sup>1</sup>, M. Villegas<sup>1</sup>, <sup>1</sup>*Instituto de Cerámica y Vidrio, Spain*
- [P2.42] Assembling and packing of nanoparticles under an electric field**  
M. Verde, I. Gonzalo-Juan, M. Villegas, A.C. Caballero, B. Ferrari\*, <sup>1</sup>*Instituto de Cerámica y Vidrio, Spain*
- [P2.43] An AFM study of nanoparticles arrangement with deposition time**  
J. Escribano, I. Gonzalo-Juan, A.J. Sanchez-Herencia, B. Ferrari\*, *Instituto de Cerámica y Vidrio, Spain*
- [P2.44] Solvothermal preparation of Sn<sup>4+</sup> doped TiO<sub>2</sub> nanocrystals with controlled crystal form and their photocatalytic activity**  
Y. Zhao\*, J. Liu, L.Y. Shi, S. Yuan, J.H. Fang, Z.Y. Wang, *Shanghai University, China*
- [P2.45] Rapid preparation of TiO<sub>2</sub> by microwave-assisted hydrothermal method and their photocatalytic activity**  
W.W. Li, Y. Zhao, L.Y. Shi\*, S. Yuan, J.H. Fang, Z.Y. Wang, *Shanghai University, China*
- [P2.46] Synthesis and characterization of polymer/inorganic composites derived from hydrophilic polymers with sodium silicate precursor: A comparison study of PVP/silica and PVA/silica composites**  
T. Kotoky\*, B.C. Thapa, *Sikkim Manipal University, India*
- [P2.47] Fabrication of microelectrodes by flow driven layer-by-layer deposition of gold nanoparticles**  
P. Kumlangdudsana<sup>1</sup>, A. Tuantranont<sup>2</sup>, I. Luxsana<sup>\*1</sup>, <sup>1</sup>*Chulalongkorn University, Thailand*, <sup>2</sup>*National Science and Technology Development Agency, Thailand*
- [P2.48] Automatic regulation of a polymer based manure separation system using physical and chemical parameters**  
B. Malmgren-Hansen, M. Kristjansson\*, *Danish Technological Institute, Denmark*

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|---------|---|
| [P2.49] | <b>Applying nanotechnology to achieve environmentally friendly coatings</b><br>A.L. Nielsen <sup>*1</sup> , D. Löf <sup>2</sup> , G. Sorensen <sup>1</sup> , <sup>1</sup> Danish Technological Institute, Denmark, <sup>2</sup> Dyrup A/S, Denmark  |
| [P2.50] | <b>Dispersion of nickel oxide and hydroxide in aqueous media</b><br>S. Cabanas-Polo <sup>1</sup> , A.J. Sanchez-Herencia <sup>*1</sup> , <sup>1</sup> Instituto de Ceramica y Vidrio, Spain   |
| [P2.51] | <b>Effect of reaction conditions on the size and morphology of ultrasonically prepared Ni(OH)2 powders</b><br>S. Cabanas-Polo <sup>1</sup> , K.S. Suslick <sup>1</sup> , A.J. Sanchez-Herencia <sup>*1</sup> , <sup>1</sup> Instituto de Ceramica y Vidrio, Spain, <sup>2</sup> University of Illinois, USA   |
| [P2.52] | <b>Adsorption of transition metal ions onto colloidal organic-silica composites</b><br>R. Singhon, J. Husson, M. Knorr, M. Euvrard*, Université de Franche Comté, France  |
| [P2.53] | <b>Synthesis of titania nanosols and study of their interaction with cell membrane</b><br>Z.R. Ismagilov <sup>*1</sup> , N.V. Shikina <sup>1</sup> , N.A. Mazurkova <sup>2</sup> , Y.E. Spitsyna <sup>3</sup> , S.N. Zagrebel'nyi <sup>2</sup> , E.I. Ryabchikova <sup>3</sup> , <sup>1</sup> Boreskov Institute of Catalysis, Russia, <sup>2</sup> Novosibirsk State University, Russia, <sup>3</sup> Institute of Chemical Biology and Fundamental Medicine, Russia |
| [P2.54] | <b>Counteranion effect on the hydrophobic and hydrophilic interactions from adsorbed emulsified media on the anionic macroporous exchange resins</b><br>M. Zéphirin*, L. Eric, F. Jean-François, B. Bélinda, Institut National Polytechnique, France  |
| [P2.55] | <b>The relevance of colloids formation on wastewater treatment: A study of the phenomenon at industrial scale</b><br>G. Trunfio, Université de Franche Comté, France  |
| [P2.56] | <b>Layer by layer deposition of polyaniline blend polystyrene sulfonate prepared from interfacial polymerization</b><br>E. Detsri, S.T. Dubas*, Chulalongkorn University, Thailand  |
| [P2.57] | <b>Synthesis of highly versatile pyrogenic silica by sonochemistry Study of morphology by fluorescent labelling</b><br>B. Matthieu, C. Francine, W. Patrice, L. David, D. François*, Université Lille Nord de France, France  |
| [P2.58] | <b>Development of one-step multiple emulsions of sesamum oil by pseudo-ternary phase diagram</b><br>N.R. Maciel*, M.R. Siani, J. Bortoloto, P.A. Rocha-Filho, Universidade de São Paulo, Brazil   |
| [P2.59] | <b>Evaluate of oil/water nanoemulsions prepared by high-energy to break up crude oil emulsion</b><br>V. Bomfim de Souza, J. Gomes Santos Neto, C. Regina Elias Mansur, V.E. Bucco de Campos*, Federal University of Rio de Janeiro, Brazil  |
| [P2.60] | <b>PMMA-gold metallocodielectric photonic crystals and inverse opals: Preparation and optical properties</b><br>S. Kassim*, S. Padmanabhan, M. Salaun, M. Pemble, Tyndall National Institute, Ireland   |
| [P2.61] | <b>DFT calculations on nonlinear optical and spectroscopic properties of free BzMAG<sub>3</sub> and cysm ligands and in the Au@BzMAG<sub>3</sub> and Au@CysM composites</b><br>D. Avci*, A. Basoglu, Y. Atalay, Sakarya University, Turkey  |
| [P2.62] | <b>Effect of aqueous phase ionic strength and pH on the fluorescence behaviour and surface charge of humic acid</b><br>A. Jada*, R. Ait Akbour, IS2M-CNRS-UHA, France   |
| [P2.63] | <b>Effect of the ionic strength and the nature of divalent cation on the transport and retention of Humic Acid aqueous solution through porous media</b><br>R. Ait Akbour <sup>1,2</sup> , J. Douch <sup>1</sup> , A. Jada <sup>*2</sup> , M. Hamdani <sup>1</sup> , <sup>1</sup> Université Ibn Zohr, Morocco, <sup>2</sup> IS2M-CNRS-UHA, France  |
| [P2.64] | <b>Single-pot synthesis: Plant mediated gold nanoparticles catalyzed reduction of methylene blue in presence of stannous chloride</b><br>N. Gupta, H.P. Singh, R.K. Sharma*, University of Delhi, India   |
| [P2.65] | <b>Investigation of shelf-life and foaming of water - SiO<sub>2</sub> - SDS compound</b><br>B.M. Somosvári <sup>*1</sup> , P. Bárczy <sup>1</sup> , G. Kaptaý <sup>2</sup> , <sup>1</sup> ADMATIS Ltd., Hungary, <sup>2</sup> Bay Zoltán Foundation of Applied Research, Hungary  |
| [P2.66] | <b>Spectral interaction of gold nanoparticles on Rhodamine B - evaluation of the extinction coefficient variation and the local pH effect</b><br>J.P. Rosa <sup>*1,2</sup> , P.V. Baptista <sup>1</sup> , J.C. Lima <sup>2</sup> , <sup>1</sup> CIGMH/DCV-FCT/UNL, Portugal, <sup>2</sup> REQUIMTE/DQ-FCT/UNL, Portugal   |
| [P2.67] | <b>Physical stability of nanoparticle dispersion</b><br>M. Fleury, Y. Lefevre*, C. Tisserand, L. Brunel, G. Meunier, Formulaction, France   |
| [P2.68] | <b>Assessment and modification of the surface properties of commercial ceramic powders</b><br>B. Neirinck*, D. Soccol, J. Fransaer, J. Vleugels, K.U.Leuven, Belgium  |
| [P2.69] | <b>Effects of various penetration enhancers on percutaneous absorption of piroxicam</b><br>Y. Javadzadeh <sup>*1</sup> , J. Shokri <sup>1</sup> , S. Azarmi <sup>2</sup> , Z. Fasihi <sup>1</sup> , S. Hallaj-Nezhadi <sup>1</sup> , S. Asnaashari <sup>1</sup> , <sup>1</sup> Tabriz University of Medical Sciences, Iran, <sup>2</sup> University of Alberta, Canada  |

- [P2.70] Theoretical investigations of surface phonon modes on the (001) surfaces of TiC and NbC**  
 S. Bagci<sup>\*1</sup>, T. Kamis<sup>1</sup>, S. Duman<sup>1</sup>, H.M. Tutuncu<sup>1</sup>, G.P. Srivastava<sup>2</sup>, <sup>1</sup>Sakarya Üniveritesi, Turkey,  
<sup>2</sup>University of Exeter, UK
- [P2.71] Sticky and slippery superhydrophobic surfaces with dual-scale structures prepared by hybrid from nanoparticles and regular pillar-like pattern**  
 K.H. Cho\*, L.J. Chen, National Taiwan University, Taiwan
- [P2.72] Topological wrinkle pattern toward fabrication of discreet micro- to nano-structure**  
 H. Endo\*, M. Tamura, T. Kawai, Tokyo University of Science, Japan
- [P2.73] Patterning silver surfaces by lithography and electrochemistry**  
 R. Hanarasinghe\*, C.D. Morton, S. Jabeen, V. Trivedi, B.D. Alexander, University of Greenwich, UK
- [P2.74] Superhydrophobic coating of epoxy-silica hybrid via a sol-gel method**  
 R. Feng<sup>1,2</sup>, L. Zhou<sup>1,2</sup>, S. Peng<sup>1,2</sup>, Q. Gu<sup>1</sup>, X. Wu<sup>\*1</sup>, <sup>1</sup>Ningbo Institute of Material Technology and Engineering, China, <sup>2</sup>Graduate University of the Chinese Academy of Sciences, China
- [P2.75] Time resolved sedimentation of aqueous concentrated bimodal suspensions of calcium carbonate**  
 L.C. Pham Trong\*, M. Djabourov, ESPCI-ParisTech, France
- [P2.76] Surface-enhanced Raman Scattering (SERS) spectra of hemoglobin of mouse and rabbit with self-assembled nano silver film**  
 Y. Kang\*, R. Liu, M. Si, Chuxiong Normal University, China
- [P2.77] The anionic surfactant adsorption on plastic surfaces in relation to wettability**  
 T. Sritapunya<sup>1</sup>, S. Chavadej<sup>\*1</sup>, J.F. Scamehorn<sup>2</sup>, B.P. Grady<sup>2</sup>, <sup>1</sup>Chulalongkorn University, Thailand, <sup>2</sup>University of Oklahoma, USA
- [P2.78] The theoretical and experimental studies on the interaction of dye-surfactant aqueous solution**  
 S. Fazeli, M. Moallemi, B. Sohrabi\*, Iran University of Science and Technology, Iran
- [P2.79] Investigation of micellar and adsorption parameters in catanionic mixtures in presence of additives**  
 M. Moallemi<sup>1</sup>, S. Fazeli<sup>1</sup>, B. Sohrabi<sup>\*1</sup>, A. Moallemi Oreh<sup>2</sup>, <sup>1</sup>Iran University of Science and Technology, Iran, <sup>2</sup>Islamic Azad University, Iran
- [P2.80] Capillary transport of cryogenic liquids in porous media**  
 M. Zhang\*, M. Dreyer, University of Bremen, Germany
- [P2.81] Cure study of epoxy resin reinforced with amino functionalized multi-walled carbon nanotubes by luminescence spectroscopy**  
 L.S. Cividanes\*, G.P. Thim, Instituto Tecnológico de Aeronáutica, Brazil
- [P2.82] Dynamic behaviours of droplet impact and spreading - initial wetting velocity and air bubble entrapment**  
 T.L. Hung, M.J. Wang, S.Y. Lin\*, National Taiwan University of Science and Technology, Taiwan
- [P2.83] Design of novel hydrophobic mesoporous silica nanoparticles and amphiphobic cotton textiles**  
 C. Pereira<sup>\*1</sup>, C. Alves<sup>1</sup>, A. Monteiro<sup>1</sup>, G. Blanco<sup>2</sup>, J.M. Pintado<sup>2</sup>, A.P. Carvalho<sup>3</sup>, <sup>1</sup>Universidade do Porto, Portugal, <sup>2</sup>Universidad de Cádiz, Spain, <sup>3</sup>Universidade de Lisboa, Portugal
- [P2.84] Corrosion resistance of the super-hydrophobic UV-curable polymeric surfaces on cold rolled steel**  
 C.W. Peng\*, J.M. Yeh, Chung-Yuan Christian University, Taiwan
- [P2.85] Analysis of electrokinetic energy conversion in hydrophobic microchannels with slip-dependent zeta-potential**  
 P.W. Hwang, J.C. Wang, C.Y. Soong\*, Feng Chia University, Taiwan
- [P2.86] Micropatterned surfaces created by grayscale maskless lithography: Effect on wettability**  
 A. Rammohan\*, P.K. Dwivedi, A. Sharma, Indian Institute of Technology Kanpur, India
- [P2.87] Bioconjugation of gold nanoparticles with light-harvesting complexes**  
 M. Olejnik<sup>\*1</sup>, S. Mackowski<sup>1</sup>, N.A. Kotov<sup>3</sup>, T. Schulte<sup>2</sup>, E. Hofmann<sup>2</sup>, P. Braun<sup>4</sup>, <sup>1</sup>Nicolaus Copernicus University, Poland, <sup>2</sup>Ruhr-University Bochum, Germany, <sup>3</sup>Ludwig-Maximilian University Munich, Germany, <sup>4</sup>University of Michigan, USA
- [P2.88] Application of a polyhedral oligomeric silsesquioxane in adsorption of metal ions and oxidation catalysis**  
 N.L. Dias Filho\*, S.D. Perujo, A.C. Bastos, N.C. Silva, UNESP-Univ Estadual Paulista, Brazil
- [P2.89] Scanning probe microscopy study of magnetite particle force interactions in a solution**  
 I.B. Dobryden\*, X. Yang, N. Almqvist, H. Weber, A. Holmgren, LTU, Sweden
- [P2.90] Superhydrophilic water repellent surfaces induced by pure short chain polymorphic glycerol and carbonic fatty acids esters covered surfaces**  
 R. Valentin, Z. Moulongui\*, INRA, France

- [P2.91] Determination of the affinity of alkoxy silanes on calcite surface through the Hansen solubility parameters**  
M.F. Salinas-Nolasco<sup>1</sup>, J. Méndez-Vivar<sup>\*2</sup>, <sup>1</sup>Laboratorio de Fisicoquímica, Mexico, <sup>2</sup>Universidad Autónoma Metropolitana Iztapalapa, Mexico
- [P2.92] Transport of colloidal systems through a packed bed of spheres with surface charge heterogeneity**  
R. Chatterjee, S. Mitra\*, S. Bhattacharjee, University of Alberta, Canada
- [P2.93] Surface tension and wetting mechanisms for nanotube combination**  
P. Waghmare, A. Mohammadpour, K. Shankar, S. Mitra\*, University of Alberta, Canada
- [P2.94] Application of functionalized  $\beta$ -cyclodextrin in selective adsorption of polyphenol antioxidants from sugar cane juice**  
K. Singh<sup>1\*</sup>, J.V. Singh<sup>2</sup>, A. Suman<sup>1</sup>, V. K. Singh<sup>1</sup>, <sup>1</sup>University of Lucknow, India, <sup>2</sup>Nehru P.G. College, India

**Tuesday, May 10<sup>th</sup> 2011, 18:30-19:30**

### Poster Session 3

**Topics: Soft materials from surfactants, polymers and dendrimers  
Responsive colloidal materials**

- [P3.01] Synthesis of new substance  $C_{42}H_{76}N_2S_2O_8$ .**  
R.S. Harutyunyan, A.K. Dovlatyan\*, Yerevan State University, Armenia
- [P3.02] Predicting the size and size distribution of steric-stabilized  $TiO_2$  nanoparticles used in Pickering-emulsion**  
O.N. Olatunji\*, R. Kumar, W. Hintz, J. Tomas, Otto-von-Guericke Universität, Germany
- [P3.03] Elaboration of silica nanoparticles network on polyethylene surface**  
E. Celia, E. Taffin De Givenchy, S. Amigoni, F. Guittard\*, Université de NICE, France
- [P3.04] Surface-tension-driven synthesis of monodisperse complex particles using confined polymeric fluids**  
C.H. Choi\*, H.H. Jeong, C.S. Lee, Chungnam National University, South Korea
- [P3.05] Low molecular weight chitosan as a vehicle for solubilization and amorphization of non steroid anti-inflammatory drug for a new guar -based colon delivery formulation**  
K. Elkhodairy, N. Barakat\*, F. Alanazi, King Saud University, Saudi Arabia
- [P3.06] Determination of the relaxation spectra for calculate dynamic permeability of viscoelastic fluids**  
S.D. Rosales-Anzola\*, E.A. Lopez G, M.A. Mas, PDVSA-Intevep, Venezuela
- [P3.07] Method to obtain the optimum relaxation time spectra from dynamic modulus**  
S.D. Rosales-Anzola\*, E.A. Lopez G, PDVSA-Intevep, Venezuela
- [P3.08] Polyethylene blends/clay nanocomposites for agricultural uses**  
L. Minkova<sup>\*1</sup>, S. Filippi<sup>2</sup>, <sup>1</sup>Bulgarian Academy of Sciences, Bulgaria, <sup>2</sup>University of Pisa, Italy
- [P3.09] Design and construction of SEDDS filled HPMC and hard gelatine capsules for dissolution and bioavailability improvement of oxcarbazepine**  
Y. Rane<sup>1</sup>, R. Mashru<sup>1</sup>, P. Severino<sup>\*2,3</sup>, E. Souto<sup>3,4</sup>, <sup>1</sup>Wockhardt Research Centre, India, <sup>2</sup>University of Campinas, Brazil, <sup>3</sup>Fernando Pessoa University, Portugal, <sup>4</sup>Institute of Biotechnology and Bioengineering, Centre of Genomics and Biotechnology, Portugal
- [P3.10] Controlling the morphology of polymer-PbS nanocomposites using triggered self-assembly**  
R. Rhodes<sup>1</sup>, P. O'Brien<sup>1</sup>, B. Saunders<sup>\*1</sup>, <sup>1</sup>University of Manchester, UK
- [P3.11] Surface dilatational moduli of poly(*n*-hexyl isocyanate), poly(vinyl acetate), and their binary mixture films spread at the air-water interface**  
T. Morioka\*, M. Kawaguchi, Mie University, Japan
- [P3.12] Predicting the viscosity of concentrated suspensions of arbitrarily-shaped particles**  
I. Santamaría-Holek\*, C.I. Mendoza, National University of Mexico, Mexico
- [P3.13] Relationships between structure and electrical properties of conducting bacterial cellulose-polianiline nanocomposites**  
J.A. Marins<sup>1</sup>, K. Dahmouche<sup>\*1</sup>, B.G. Soares<sup>1</sup>, H.S. Barud<sup>2</sup>, D. Bonemer<sup>2</sup>, S.J.L. Ribeiro<sup>2</sup>, <sup>1</sup>Federal University of Rio de Janeiro, Brazil, <sup>2</sup>State university of São Paulo, Brazil
- [P3.14] Cobalt-based metal catalysts for the partial hydrogenation of benzene to cyclohexene**  
N. Karashima<sup>\*1,2</sup>, T. Takei<sup>1,2</sup>, <sup>1</sup>Tokyo Metropolitan University, Japan, <sup>2</sup>JST-CREST, Japan
- [P3.15] Effect of sulphanilamide adsorption on zeta potential and water loss of raw and Na-activated bentonite**  
W.K. Mekhamer, L.A. Al Juhaime\*, A.M. Al-Boajan, King Saud University, Saudi Arabia

- [P3.16] Preparation of poly(lactic acid)/montmorillonite nanocomposites by solution intercalation and characterization employing NMR relaxometry**  
L. Brito\*, M.I. Tavares, *UFRJ, Brazil*
- [P3.17] Synthesis of silica-alginate microcapsules and silica hollow microspheres for application in bioencapsulation**  
P. Haufová\*, J. Dohnal, P. Kovacik, F. Stepanek, *Institute of Chemical Technology, Czech Republic*
- [P3.18] Dynamic electrophoretic mobility in salt-free concentrated suspensions including ion size effects**  
R. Roa\*, F. Carrique, E. Ruiz-Reina, *Universidad de Málaga, Spain*
- [P3.19] Amphiphilic blocks copolymers aqueous solutions as solvents for benzene recovery**  
A. Erto\*, A. Lancia, *Università di Napoli, Italy*
- [P3.20] Self-assembly and electroactive properties of amphiphilic poly(amidoamine) dendrimers with an aniline pentamer shell**  
W.I. Hung<sup>\*1</sup>, C.B. Hung<sup>1</sup>, Y.H. Chang<sup>1</sup>, Y. Wei<sup>2</sup>, X.R. Jia<sup>3</sup>, J.M. Yeh<sup>1</sup>, <sup>1</sup>*Chung-Yuan Christian University, Taiwan*, <sup>2</sup>*Drexel University, United States Minor Outlying Islands*, <sup>3</sup>*Peking University, China*
- [P3.21] Visual, structural and rheological properties of polypseudorotaxane composed by β-cyclodextrin and Pluronic®**  
K.C. Shih, W.Y. Kuo, H.M. Lai\*, *National Taiwan University, Taiwan*
- [P3.22] Composites of thermoplastic polyurethane/polypropylene-g-maleic anhydride/wollastonite**  
S. Ketthongmongkol\*, S. Chuayjuljit, *Chulalongkorn University, Thailand*
- [P3.23] Preparation and properties of poly(vinyl chloride) blended with poly(methyl methacrylate) nanoparticles synthesized by differential microemulsion polymerization**  
S. Chuayjuljit\*, A. Chantanaprasartporn, J. Wipachon, *Chulalongkorn University, Thailand*
- [P3.24] Molecular modeling of gel nanoparticles as drug carriers for oral drug delivery**  
J. Tokarsky<sup>\*1</sup>, T. Andrysek<sup>2</sup>, P. Capkova<sup>1</sup>, <sup>1</sup>*VSB-TU Ostrava, Czech Republic*, <sup>2</sup>*Teva Czech Industries, Czech Republic*
- [P3.25] Internal stresses in rigid fractal aggregates immersed in a shear flow**  
A. Gastaldi, M. Vanni\*, *Politecnico di Torino, Italy*
- [P3.26] Design of polymeric drug carriers using molecular modeling.**  
M. Machackova<sup>1</sup>, J. Tokarsky<sup>1</sup>, T. Andrysek<sup>2</sup>, P. Capkova<sup>\*1</sup>, <sup>1</sup>*VSB- TU Ostrava, Czech Republic*, <sup>2</sup>*Teva Czech Industries, Czech Republic*
- [P3.27] Water, what else? A story of catanionic surfactants in non-aqueous media.**  
S.C. Cassel<sup>\*1</sup>, R. Ramsch<sup>2</sup>, I. Rico-Lattes<sup>1</sup>, <sup>1</sup>*University of Toulouse III, France*, <sup>2</sup>*University of Barcelona, Spain*
- [P3.28] Polystyrene/silica colloidal molecules obtained by seeded-growth emulsion polymerization**  
A. Désert<sup>\*1</sup>, J.C. Taveau<sup>1</sup>, S. Ravaine<sup>1</sup>, E. Bourgeat-Lami<sup>2</sup>, A. Thill<sup>3</sup>, E. Duguet<sup>1</sup>, <sup>1</sup>*Université de Bordeaux, France*, <sup>2</sup>*Laboratoire de Chimie et Procedes des Polymeres, France*, <sup>3</sup>*Laboratoire Interdisciplinaire sur l'Organisation Nanométriques et Supramoléculaire, France*
- [P3.29] Convective effects on polymer redistribution around a spherical colloid**  
T.H. Fan<sup>\*1</sup>, T. Taniguchi<sup>2</sup>, A. Beshkani<sup>1</sup>, R. Tuinier<sup>3,4</sup>, <sup>1</sup>*University of Connecticut, USA*, <sup>2</sup>*Kyoto University, Japan*, <sup>3</sup>*DSM Research, The Netherlands*, <sup>4</sup>*Utrecht University, The Netherlands*
- [P3.30] Change of polymer depletion near solvent permeable walls by hydrodynamic flow**  
T. Taniguchi<sup>\*1</sup>, T.H. Fan<sup>2</sup>, Y. Arai<sup>1</sup>, R. Tuinier<sup>3,4</sup>, <sup>1</sup>*Kyoto University, Japan*, <sup>2</sup>*University of Connecticut, USA*, <sup>3</sup>*DSM Research, ACES, The Netherlands*, <sup>4</sup>*Utrecht University, The Netherlands*
- [P3.31] Fluorescent behaviors of poly (2-(acetoxymethyl) methacrylate) and its ammonia gas sensing characteristics**  
J. He\*, T.Y. Zhang, G. Chen, *The Hong Kong University of Science & Technology, Hong Kong*
- [P3.32] Surfactant assisted sol – gel synthesis of TiO<sub>2</sub> films with uniform particles size distribution**  
O.L. Galkina\*, V.V. Vinogradov, A.V. Agafonov, *Russian Academy of Sciences, Russia*
- [P3.33] Nanoencapsulation of n-hexadecane as a phase change material through miniemulsion copolymerization of acrylic monomers**  
A.R. Mahdavian<sup>\*1</sup>, A. Rezaee<sup>2</sup>, S. Khoei<sup>2</sup>, <sup>1</sup>*Iran Polymer and Petrochemical Institute, Iran*, <sup>2</sup>*University of Tehran, Iran*
- [P3.34] Application of Taguchi design of experiment technique for adsorption of pyridine onto bagasse fly ash**  
D.H. Lataye<sup>\*1,2</sup>, I.M. Mishra<sup>2</sup>, I.D. Mall<sup>2</sup>, <sup>1</sup>*isvesvaraya National Institute of Technology, India*, <sup>2</sup>*Indian Institute of Technology, India*
- [P3.35] The viscosity influence of a silica/zirconia sol on EISA-based film**  
R. Garcia\*, S. Souza, E. Kawachi, *Instituto Tecnológico de Aeronáutica, Brazil*

- [P3.36] Layer-by-layer self-assembly of polyelectrolyte functionalised carbon nanotubes and [Ni(salen)]-type complexes**  
C. Freire<sup>1</sup>, S. Patrício<sup>1</sup>, C. Moura<sup>1</sup>, A.R. Hillman<sup>3</sup>, <sup>1</sup>Universidade do Porto, Portugal, <sup>2</sup>University of Leicester, UK
- [P3.37] Coacervation equilibrium between sodium dodecyl sulphate, polyethyleneimine, xanthan and polymer derivatives**  
J.P.T.A. Guerra\*, L.G. Nandi, I.C. Bellettini, K.B. Fontana, E. Minatti, *Federal University of Santa Catarina, Brazil*
- [P3.38] Supramolecular aggregates of lentinan polysaccharide and SB3-12 investigated by surface tension and static light scattering**  
J.P.T.A. Guerra\*, L.G. Nandi, I.C. Bellettini, E. Minatti, *Federal University of Santa Catarina, Brazil*
- [P3.39] Preparation morphology and properties of as-prepared SiO<sub>2</sub>-PANI core-shell microspheres decorated with gold nanoparticles**  
C.J. Weng\*, Y.L. Chen, J.M. Yeh, *Chung-Yuan Christian University, Taiwan*
- [P3.40] Supramolecular self-assembly of chelating amphiphiles and their Mn or Gd complexes for MRI imaging**  
M.J. Moghaddam<sup>1</sup>, L. DeCampo<sup>2</sup>, L.J. Waddington<sup>1</sup>, A. Weerawardena<sup>1</sup>, C.J. Drummond<sup>1</sup>, <sup>1</sup>CSIRO, Australia, <sup>2</sup>Australian National University, Australia
- [P3.41] Effect of the alcohols addition in the R<sup>F</sup><sub>8</sub>(EO)<sub>9</sub>-based system on the characteristics of mesoporous silica**  
J.L. Blin, N. Du, M.J. Stébé\*, *Université Nancy, France*
- [P3.42] Titanosilicates from the self assembly and the liquid crystal pathways : A comparative study**  
J.L. Blin<sup>1</sup>, K. Zimny<sup>1</sup>, C. Carteret<sup>2</sup>, M.J. Stébé<sup>\*1</sup>, <sup>1</sup>UMR SRSMC N° 7565 Université Nancy 1 / CNRS, France, <sup>2</sup>UMR7564 Université Nancy 1 / CNRS, France
- [P3.43] Control of biomolecule adsorption on chemically phase-separated sapphire surfaces.**  
K. Yamazaki\*, T. Isono, T. Wada, T. Ogino, *Yokohama National University, Japan*
- [P3.44] The effects of size and gel/fluid ratio on the rheological properties of hyaluronic acid hydrogels crosslinked with divinyl sulfone**  
A.A.M. Shimojo, M.H.A. Santana\*, *University of Campinas, Brazil*
- [P3.45] Novel gel emulsions with reverse hexagonal liquid crystal in the continuous phase: Rheological analysis and phase behavior**  
A. May<sup>\*1</sup>, K. Aramaki<sup>2</sup>, J.M. Gutiérrez<sup>1</sup>, <sup>1</sup>Barcelona University, Spain, <sup>2</sup>Yokohama National University, Japan
- [P3.46] Application of fractal analysis and percolation theory in determination of the structure of langmuir monolayer**  
D. Risovic\*, S. Frka, Z. Kozarac, *Rudjer Boskovic Institute, Croatia*
- [P3.47] Phonon anomalies and superconductivity in the rocksalt CrC and NbC**  
S. Duman\*, H.M. Tütüncü, A. Akbulut, S. Bagci, *Sakarya Üniversitesi, Turkey*
- [P3.48] Multi-component self-assembling lipopeptides involving labile interactions**  
C. Dejugnat\*, F. Rodrigues, I. Rico-Lattes, *Université Paul Sabatier, France*
- [P3.49] Microfluidics as a tool to investigate a tip-streaming phenomenon**  
L. Salkin\*, M. Guémas, A. Saint-Jalmes, P. Panizza, L. Courbin, *Institut de Physique de Rennes UMR, France*
- [P3.50] Characterization of superplasticizer behaviour by atomic force microscopy**  
L. Ferrari\*, J. Kaufmann, F. Winnefeld, *Empa, Switzerland*
- [P3.51] Surface active ionic liquids: Importance of the alkyl group length in the micellization properties of 1-alkyl-3-(n-hexadecyl)imidazolium chlorides**  
P.D. Galgano\*, O.A. El Seoud, *University of São Paulo, Brazil*
- [P3.52] Friction-controlled bending solitons as folding pathway toward colloidal clusters**  
N. Casic<sup>\*1</sup>, S. Schreiber<sup>1</sup>, P. Tierno<sup>2</sup>, W. Zimmermann<sup>1</sup>, T.M. Fischer<sup>1</sup>, <sup>1</sup>Universität Bayreuth, Germany, <sup>2</sup>Universitat de Barcelona, Spain
- [P3.53] Effect of the pseudo-ternary complex (nuclear localization signal peptide/ DNA/cationic liposomes) for tuberculosis gene treatment**  
R.S. Rosada<sup>2</sup>, C.L. Silva<sup>2</sup>, C.R. Nakaie<sup>3</sup>, M.H.A. Santana<sup>1</sup>, L.G. de la Torre<sup>\*1</sup>, <sup>1</sup>State University of Campinas, Brazil, <sup>2</sup>University of São Paulo, Brazil, <sup>3</sup>Federal University of São Paulo, Brazil
- [P3.54] Characterisation of functionalized accurel® hydrophobic support and its use for selective adsorption for amino acids**  
K. Singh<sup>\*1</sup>, J. S. Parihar<sup>2</sup>, V.K. Singh<sup>1</sup>, R. Bharose<sup>1</sup>, S.K. Verma<sup>1</sup>, A. Suman<sup>1</sup>, <sup>1</sup>University of Lucknow, India, <sup>2</sup>Maharaja College, India

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| [P3.55] | <b>Self-assembling glycine compounds in foam films</b><br>I. Grozev <sup>1</sup> , R. Todorov <sup>1</sup> , E. Mileva <sup>*1</sup> , <sup>1</sup> Bulgarian Academy of Sciences, Bulgaria  |
| [P3.56] | <b>Impact of aphiphilic nanostructures on rheology of interfacial layers and foam-film drainage</b><br>B. Soklev, D. Arabadzhieva, P. Tchoukov, E. Mileva*, Bulgarian Academy of Sciences, Bulgaria  |
| [P3.57] | <b>Passive microrheology: Non contact measurement of viscoelastic properties of biopolymers</b><br>C. Tisserand, M. Fleury, L. Brunel, P. Bru, G. Meunier, Y. Lefevre*, Formulaction, France   |
| [P3.58] | <b>Formation mechanism of self-assembled composite micelles for mesostructured carbon materials: Studies by dynamic light scattering and <sup>1</sup>H NMR relaxation time measurements</b><br>J. Parmentier*, S. Schlienger, C. Ducrot-Boisgontier, J.L. Guth, L. Delmotte, IS2M, France  |
| [P3.59] | <b>GOLD NANO-PARTICLES SUPPORTED ON COBALT OXIDE FOR GAS PHASE HYDROFORMYLATION OF PROPYLENE</b><br>S. Nomoto <sup>*1,2</sup> , T. Takei <sup>1,2</sup> , M. Haruta <sup>1,2</sup> , <sup>1</sup> Tokyo Metropolitan University, Japan, <sup>2</sup> JST-CREST, Japan  |
| [P3.60] | <b>PREPARATION OF PALLADIUM NANOPARTICLES EMBEDDED IN POROUS CONJUGATED POLYMERS FOR THE SELECTIVE HYDROGENATION OF NITROSTYRENE</b><br>Y. Onuma <sup>*1,3</sup> , T. Ishida <sup>1,3</sup> , T. Akita <sup>2,3</sup> , M. Haruta <sup>1,3</sup> , <sup>1</sup> Tokyo Metropolitan University, Japan, <sup>2</sup> AIST, Japan, <sup>3</sup> JST-CREST, Japan  |
| [P3.61] | <b>Reversible sorption and storage of CO<sub>2</sub> with nanoscale γ-AlO(OH) hollow spheres</b><br>S. Simonato*, C. Feldmann, Karlsruhe Institute of Technology (KIT), Germany  |
| [P3.62] | <b>n-p-doped Tin Oxide as aNanoscaled Transparent Conductive Oxide</b><br>S. Wolf*, C. Feldmann, Karlsruhe Institute of Technology (KIT), Germany  |
| [P3.63] | <b>Adsorption performances of mesoporous activated carbon prepared from waste rubber tire and activated carbon for a hazardous azo dye- Acid Blue 113</b><br>V.K. Gupta*, A. Nayak, Indian Institute of Technology Roorkee, India  |
| [P3.64] | <b>Functional materials from emulsions stabilized by stimulus-responsive colloidal particles</b><br>T. Ngai, The Chinese University of Hong Kong, China  |
| [P3.65] | <b>Polymorphic behavior and hydrophile-lipophile balance of lipid nanoparticles for improving drug delivery</b><br>P. Severino <sup>*1,2</sup> , E. Souto <sup>2,3</sup> , M.H. Santana <sup>1</sup> , <sup>1</sup> University of Campinas, Brazil, <sup>2</sup> Fernando Pessoa University, Portugal, <sup>3</sup> Institute of Biotechnology and Bioengineering, Portugal  |
| [P3.66] | <b>Smarter soft particles by post modification</b><br>N. Sahiner*, O. Ozay, Canakkale Onsekiz Mart University, Turkey  |
| [P3.67] | <b>Inversion of particle-stabilized emulsions to form high internal phase emulsions</b><br>G. Sun*, N.T. Shatin, The Chinese University of Hong Kong, Hong Kong  |
| [P3.68] | <b>Surface-enhanced Raman scattering studies of methyl orange based on AgBr colloids prepared by using electrolysis method</b><br>M. Si <sup>*1</sup> , R. Liu <sup>1</sup> , D. Zhang <sup>2</sup> , Z. Liu <sup>2</sup> , <sup>1</sup> Chuxiong Normal University, China, <sup>2</sup> Yunnan Normal University, China   |
| [P3.69] | <b>Colloidal behaviour of TiO<sub>2</sub> nanoparticles and adsorption of Se(IV): Experimental and modelling</b><br>A. Benedicto*, T. Missana, CIEMAT, Spain   |
| [P3.70] | <b>Structure and properties of YBa<sub>2</sub>Cu<sub>3</sub>O<sub>7-δ</sub> superconductor doped with CdO nanoparticles</b><br>M. Zargar Shoushtari*, A. Echresh, Shahid Chamran University of Ahvaz, Iran   |
| [P3.71] | <b>Study on modifying surface of nano-sized colloidal silica with magnesium cations</b><br>A. Karami, Inorganic Chemistry Research Group, Iran   |
| [P3.72] | <b>Arsenate removal from aqueous solutions by Mg/Al layered double hydroxides with different nitrate orientations</b><br>C.H. Liu <sup>*1</sup> , Y.H. Chuang <sup>1,3</sup> , S.L. Wang <sup>2</sup> , M.K. Wang <sup>1</sup> , <sup>1</sup> National Taiwan University, Taiwan, <sup>2</sup> National Chung-Hsing University, Taiwan, <sup>3</sup> Tea Research and Extension Station, Taiwan  |
| [P3.73] | <b>Removal of naphthalene from aqueous solution by chemical surfactant and bio-surfactant intercalated with layered double hydroxides (LDHs)</b><br>Y.H. Chuang <sup>*1,4</sup> , C.H. Liu <sup>1</sup> , Y.M. Tzou <sup>2</sup> , J.S. Chang <sup>3</sup> , P.N. Chiang <sup>1</sup> , M.K. Wang <sup>1</sup> , <sup>1</sup> National Taiwan University, Taiwan, <sup>2</sup> National Chung-Hsing University, Taiwan, <sup>3</sup> National Cheng Kung University, Taiwan, <sup>4</sup> Tea Research and Extension Station, Taiwan |
| [P3.74] | <b>Photoluminescence from SnO<sub>x</sub>/Sn nanoparticle array produced on solid supported phospholipid multilayer</b><br>H.H. An, J.H. Lee, H.S. Kim, Y.H. Kim, D.K. Choi*, C.S. Yoon, Hanyang University, South Korea   |
| [P3.75] | <b>Single-particle micro-rheology of photopolymerizable sol-gel materials for optical applications</b><br>P. Domínguez-García <sup>*1</sup> , M.A. Rubio <sup>1</sup> , A.V. Velasco <sup>2</sup> , M.P. Hernández-Garay <sup>2</sup> , M.L. Calvo <sup>2</sup> , P. Cheven <sup>3</sup> , <sup>1</sup> UNED, Spain, <sup>2</sup> UCM, Spain, <sup>3</sup> National Research Council of Canada, Canada   |

- [P3.76] Electro-rheological effect in colloidal suspensions of polysilsesquioxane (POSS) functionalized with mercaptan**  
J.A. Marins, K. Dahmouche\*, B.G. Soares, *Federal University of Rio de Janeiro (UFRJ), Brazil*
- [P3.77] Magneto-responsive liquid crystalline cellulose derivative solutions**  
S.A. Vshivkov\*, A.G. Galjas, *Ural State University, Russia*
- [P3.78] Heteroflocculation behaviour of mixed-charge poly(NIPAM) microgel dispersions**  
J.B. Thorne\*, M.J. Snowden, *University of Greenwich, UK*
- [P3.79] The influence of cross-linker on shell cross-linked micelles self-assembled from poly(*t*-butyl acrylate)-*b*-poly(2-dimethylamino)ethyl methacrylate**  
X. Zhang\*, S. Yang, J. Ma, *Donghua University, China*
- [P3.80] Electrochemical study of surface active material in atmospheric aerosols**  
Z. Kozarac<sup>\*1</sup>, S. Frka<sup>1</sup>, J. Dautovic<sup>1</sup>, G. Kiss<sup>2</sup>, A. Hoffer<sup>2</sup>, <sup>1</sup>*Rudjer Boskovic Institute, Croatia*, <sup>2</sup>*University of Pannonia, Hungary*
- [P3.81] Adsorption properties of surface active substances in the natural sea surface microlayer**  
S. Frka\*, Z. Kozarac, B. Cosovic, *Rudjer Boskovic Institute, Croatia*
- [P3.82] Field-induced orientational order of liquid crystalline clay suspensions and clay/polymer composites**  
E. Paineau<sup>\*1</sup>, I. Dozov<sup>2</sup>, P. Davidson<sup>2</sup>, C. Baravian<sup>3</sup>, P. Levitz<sup>4</sup>, L.J. Michot<sup>1</sup>, <sup>1</sup>*Nancy University - INPL, France*, <sup>2</sup>*University of Paris-Sud, France*, <sup>3</sup>*Nancy University - UHP, France*, <sup>4</sup>*Ecole Polytechnique, France*
- [P3.83] Stimuli responsive magnetic microgels prepared using sterically stabilized water based magnetic nanofluid**  
R. Turcu\*, I. Craciunescu, I. Turcu, A. Nan, M. Mic, L. Rednic, *National Institute R&D of Isotopic and Molecular Technologies Cluj-Napoca, Romania*
- [P3.84] Modeling of sustained protein release from aptamer-modified hydrogel**  
T.H. Fan\*, B. Soontornworajit, M. Karzar-Jeddi, Y. Wang, *University of Connecticut, USA*
- [P3.85] Preparation and applications of gold nanoparticles through autoreduction of gold ions in the presence of fluoroalkyl end-capped oligomeric aggregates**  
H. Sawada\*, K. Takahashi, T. Tsuzuki-ishi, *Hirosaki University, Japan*
- [P3.86] Effects of bio-derived additive properties of oil-in-water emulsions**  
V.N. Lad\*, Z.V.P. Murthy, S. V. *National Institute of Technology, India*
- [P3.87] Photo-reactive surfactants as functional tools for synthesis of nanomaterials in colloidal media.**  
R.J. de Oliveira<sup>\*1,2</sup>, A. Galembeck<sup>2</sup>, J. Eastoe<sup>1</sup>, <sup>1</sup>*University of Bristol, UK*, <sup>2</sup>*Federal University of Pernambuco, Brazil*
- [P3.88] Colloidal stability loss with increasing dilution of polar carrier based magnetic nanocolloids**  
V. Socoliu<sup>1,2</sup>, A. Taculescu<sup>2</sup>, C. Daia<sup>2</sup>, L. Vekas<sup>\*2</sup>, <sup>1</sup>"Petru Poni" Institute of Macromolecular Chemistry, Romania, <sup>2</sup>Romanian Academy, Romania
- [P3.89] Role of Zn<sub>3</sub>P<sub>2</sub> in the hydrothermal growth of ZnO particles**  
M. Peiteado, T. Jardiel, F. Rubio, M. Verde, B. Ferrari, A.C. Caballero\*, *Instituto de Ceramica y Vidrio, Spain*
- [P3.90] Synthesis of polymer composite dumbbells asymmetrically incorporating an inorganic sphere**  
D. Nagao\*, K. Hayasaka, M. Sugimoto, M. Konno, *Tohoku University, Japan*
- [P3.91] High performance humidity sensor based on ZrO<sub>2</sub> nanorods**  
Z.Y. Wang\*, Y. Lu, L.Y. Shi, S. Yuan, Y. Zhao, M.H. Zhang, *Shanghai University, China*
- [P3.92] Concentrated ceramic colloidal gelling with PEO-PPO-PEO triblock copolymers for three dimensional direct-ink-writing**  
A. Kondo\*, H. Abe, M. Naito, *Osaka University, Japan*
- [P3.93] Connecting sticky ends: Numerical study of DNA-mediated colloidal interactions and phase behavior**  
M.E. Leonissen<sup>\*1</sup>, D. Frenkel<sup>1</sup>, <sup>1</sup>*FOM Institute AMOLF, The Netherlands*, <sup>2</sup>*University of Cambridge, UK*
- [P3.94] Adsorption of Cadmium (II) and Zinc (II) on boron industry waste from aqueous solution: Batch and fixed-bed system studies**  
N. Atar<sup>\*1,2</sup>, A. Olgun<sup>1</sup>, S. Wang<sup>2</sup>, <sup>1</sup>*University of Dumlupinar, Turkey*, <sup>2</sup>*Curtin University of Technology, Australia*
- [P3.95] Fabrication of dimer of silver nanoparticles for surface enhanced raman scattering**  
H. Kodama\*, D. Yoshioka, H. Suzuki, T. Takahagi, H. Sakaue, *Hiroshima University, Japan*
- [P3.96] Effect of core volume on the SERS intensity in star-shaped nanocrystals**  
P. Aldeanueva-Potel<sup>\*1</sup>, E. Carbó-Argibay<sup>1</sup>, S. Barbosa<sup>1</sup>, N. Pazos-Pérez<sup>\*2</sup>, J. Pérez-Juste<sup>1</sup>, I. Pastoriza-Santos<sup>1</sup>, <sup>1</sup>*Universidad de Vigo, Spain*, <sup>2</sup>*University of Bayreuth, Germany*

- [P3.97] Formation of cysteine, zwitterionic amino acid, terminated monolayers on polycrystalline tin surface via nanoparticle junction**  
 N. Atar<sup>\*1</sup>, I. Ustundag<sup>1</sup>, R. Guzel<sup>2</sup>, M.O. Caglayan<sup>3</sup>, A. Olgun<sup>1</sup>, Z. Ustundag<sup>1</sup>, <sup>1</sup>*University of Dumlupinar, Turkey*, <sup>2</sup>*Dicle University, Turkey*, <sup>3</sup>*Cumhuriyet University, Turkey*, <sup>4</sup>*Kyrgyz-Turk Manas University, Kyrgyzstan*, <sup>5</sup>*Ankara University, Turkey*
- [P3.98] Synthesis of nanotube networks coated with a magnetic material**  
 C. Mateo-Mateo<sup>\*1</sup>, F. Rivadulla<sup>2</sup>, M.A. Correa-Duarte<sup>1</sup>, L.M. Liz-Marzan<sup>1</sup>, <sup>1</sup>*Universidade de Vigo, Spain*, <sup>2</sup>*Universidade de Santiago de Compostela, Spain*
- [P3.99] Fluorophore labelled smart polymers**  
 S. Jabeen, B. Alexander\*, L. Benée, *University of Greenwich, UK*
- [P3.100] Dynamic electrophoresis in realistic salt-free concentrated suspensions. Non-equilibrium dissociation-association processes.**  
 E. Ruiz-Reina\*, L. Lechuga, F. Carrique, *Universidad de Málaga, Spain*
- [P3.101] Electrodeposition of composite silica/latex particles onto metallic substrates and polythiophene films**  
 A.F. Monnin, C.C. Buron, L. Guyard, M. Euvrard\*, C. Filiatre, *Université de Franche-Comté, France*
- [P3.102] The influence of particle volume fraction on the colloidal stability of highly concentrated magnetic nanofluids**  
 D. Susan-Resiga<sup>1,2</sup>, V. Socoliu<sup>3,1</sup>, T. Boros<sup>5</sup>, T. Borbath<sup>5</sup>, O. Marinica<sup>4</sup>, L. Vekas<sup>\*1</sup>, <sup>1</sup>*Center for Fundamental and Advanced Technical Research, Romania*, <sup>2</sup>*West University of Timisoara, Romania*, <sup>3</sup>*"Petru Poni" Institute of Macromolecular Chemistry, Romania*, <sup>4</sup>*University Politehnica Timisoara, Romania*, <sup>5</sup>*Roseal Co., Romania*
- [P3.103] Mechanical strength and release properties of silica microcapsules produced via a surfactant-free emulsion synthesis**  
 R. Allen\*, R. Mercade-Prieto, Z. Zhang, J.A. Preece, D. York, T. Goodwin, <sup>1</sup>*University of Birmingham, UK*
- [P3.104] A novel adsorbent for arsenite removal**  
 C.C. Wu<sup>\*1</sup>, J.L. Chen<sup>1</sup>, C.L. Chen<sup>1</sup>, M.J. Wei<sup>1</sup>, M.W. Wan<sup>2</sup>, C.C. Kan<sup>2</sup>, <sup>1</sup>*Feng Chia University, Taiwan*, <sup>2</sup>*Chia Nan University of Pharmacy and Science, Taiwan*
- [P3.105] Formation and functionality of whey protein isolate - (kappa-, iota-, and lambda-type) carrageenan electrostatic complexes**  
 A.K. Stone\*, M.T. Nickerson, *University of Saskatchewan, Canada*
- [P3.106] Comparison of latex, gold and montmorillonite colloid transport in a granite fracture: Study of retention processes.**  
 N. Albaran, T. Missana, U. Alonso, M. García-Gutiérrez, A. Benedicto\*, T. López, *CIEMAT, Spain*
- [P3.107] Pickering emulsions stabilized by soft and responsive microgels**  
 M. Destribats, V. Lapeyre, M. Wolfs, F. Leal-Calderon, V. Ravaine\*, V. Schmitt, *University of Bordeaux, France*
- [P3.108] Adsorption of synthetic surfactants on shungite**  
 A.V. Sineva\*, A.M. Parfenova, *Lomonosov Moscow State University, Russia*
- [P3.109] Passive microrheology: Non intrusive measurement of the emulsion stability**  
 C. Tisserand, M. Fleury, L. Brunel, P. Bru, G. Meunier, Y. Lefevre\*, *Formulaction, France*
- [P3.110] Filler network evolution induced by biopolymer transition of conformation in nanocomposite hydrogels**  
 F. Carn<sup>1</sup>, F. Boué<sup>2</sup>, M. Djabourov<sup>\*3</sup>, N. Steunou<sup>4</sup>, E. Buhler<sup>1</sup>, <sup>1</sup>*UMR CNRS-Université Paris Diderot, France*, <sup>2</sup>*Laboratoire Léon Brillouin, France*, <sup>3</sup>*Laboratoire de Physique Thermique, France*, <sup>4</sup>*UMR CNRS-Université de Versailles, France*
- [P3.111] Organic pollutants removal from 2,4,6-trinitrotoluene (TNT) red water using low cost activated coke**  
 M. Zhang\*, Q. Zhao, Z. Ye, *Peking University, China*