

4th ECNP YOUNG RESEARCHER CONFERENCE
ENCP WORKSHOP ON INTERFACES
ECNP INDUSTRIAL MEETING
Lyon (France) - Villa Villemanzy
November 7-10, 2011



The European Center for Nanostructured Polymers invites you to join the following combined events which will be organized from November 7th to November 10th, 2011 in Lyon:

- **ECNP Workshop on 'Interfaces in Nanocomposites: What Can Be Learned from Fiber-Based Composites ? From Interface Chemistry to Micromechanics'** which will be the way to merge the existing expertises on (micro)fibers such as glass, carbon, or natural fibers and their related composites and the actual research and development activities focused on nanocomposites. The programme is balanced between the two sides in order to highlight the similar approaches and methods as well as the specific features of each type of materials. Lecturers both from academy and industry will review the different steps of synthesis, production, modification and interface characterizations for each material type. Posters related to the workshop topics could be proposed.
- **Young Researcher Conference** open to any contribution related to polymer science, i.e. from macromolecular synthesis to polymer processing and polymer physics. Each selected young researcher participant (PhDs, post-docs, young permanent scientists) will give a 20' minute presentation and could board additional posters during poster sessions.
- **Industrial Meeting** which will join companies which supported the ECNP proposal to EC as well as any company representative interested in the ECNP activities (research, lab. capabilities, training, etc).

Details and on-line registrations: <http://www.ecnp.eu.org>

Local organization committee

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WORKSHOP - INTERFACES IN NANOCOMPOSITES: WHAT CAN BE LEARNED FROM CONVENTIONAL FIBER-BASED COMPOSITES ?

From Interface Chemistry to Micromechanics

ECNP WORKSHOP LECTURERS

- J. KENNY (CSIC Madrid - INSTM Perugia)
 Interfaces and Interphases in Nanocomposites and Conventional Fiber-Based Composites: General Introduction
 Carbon nanotubes and graphenes : From structure to surface functionalization
- A. DUFRESNE (PAGORA Grenoble)
 Polysaccharide nanofillers
- E. MAEDER (IPF Dresden)
 Functional interphases in fiber-based composites and their characterization
- H.D. WAGNER (Weizmann Institute Rehovot Israël)
 Interface micromechanics - From microbond test applied to fiber-based systems to CNT nanocomposite interfaces
- G. DUPUPET (SOFICAR - TORAY Co)
 Carbon fibers: Synthesis, surface modifications, and related composite materials
- D. BONDUEL (Nanocyl Co.) to be confirmed
 Carbon Nanotubes : Production and review of industrial applications
- L. PETERS (3B-fibres -B-)
 Glass fibers: From spinning and sizing processes to related composite materials
- L. GUY (Rhodia / Solvay Co.)
 Silica as reinforcing filler and silica surface modifications: Consequences on processing and properties
- S. THOMAS (University Kottayam, Kerala, India)
 Natural fibers and related composites
- J. DUCHET-RUMEAU / J.F. GERARD (IMP CNRS Lyon)
 Influence of interfaces on thermoset- and thermoplastic-based nanocomposite processing

Provisional programme (combined WS, YRM, and IM)

Monday November 7th, 2011

	8 :30-9 :30	Registration - Coffee
	9 :30-9 :40	Opening - J. Kenny (ECNP President)
ECNP Workshop	9:40-10:10	Invited lecture #1 Introduction - Interfaces and Interphases in Nanocomposites and Conventional Fiber-Based Composites: General Introduction <i>J. Kenny, CSIC Madrid, Spain - INSTM University Perugia, Italy</i>
Y. Res. Conference	10:10-10:30	Oral presentation #1 (Young Researcher) Development of Poly(acrylamide/acrylic acid) UCST-like thermosensitive Hybrid Microgels - From Structure to Potential Applications <i>C. Echeverría, D. Lopez, C. Mijangos, Instituto de Ciencia y Tecnologia de Polimeros, CSIC, Madrid, Spain</i>
	10:30-10:50	Oral presentation #2 (Young Researcher) Synthesis of heterogeneous epoxy networks induced by crosslinked polymer microparticle dispersion <i>M.L. Michon^a, J. Galy^a, J.F. Gérard^a, T. Diskic^b, T. Verburggeb,</i>

		^a Université de Lyon, INSA Lyon, IMP UMR CNRS #5223, Villeurbanne, France ; ^b Dow Chem, Terneuzen, The Netherlands
	10:50-11:10	Coffee Break
Y. Res. Conference	11:10-11:30	Oral presentation #3 (Young Researcher) Development of carbon fiber/epoxy composites based on alumina nanoparticles <i>M. Rallini^a, M. Monti^a, M. Natali^a, José M. Kenny^{a,b}, L. Torre^a, ^aUniversity of Perugia, Civil and Environmental Engineering Department, Terni, Italy; ^bICTP-CSIC, Juan de la Cierva 3, 28006 Madrid, Spain</i>
	11:30-11:50	Oral presentation #4 (Young Researcher) SEBS-assisted Dispersion of Carbon Nanotubes in High density polyethylene: improvement of Electrical and Mechanical Properties <i>F. Tao^a, S. Zhang^a, L. Bonnaud^b, P. Dubois^b, C. Bailly^a, ^aBio- and Soft Matter, Institute of Condensed Matter and Nanosciences, Université Catholique de Louvain, Louvain-La-Neuve, Belgium; ^bLaboratory of Polymeric and Composite Materials, Center of Innovation and Research in Materials & Polymers (CIRMAP), Materia Nova Research Center & University of Mons, Mons, Belgium</i>
	11:50-12:10	Oral presentation #5 (Young Researcher) Polymer Nanocomposites: the Influence of Dispersion on Composite Properties <i>Y. Matveeva, F.W.J. van Hattum, University of Minho, Department of Polymer Engineering, Guimares, Portugal</i>
	12:10-12:30	Oral presentation #6 (Young Researcher) Synthesis of Water-Soluble Polymers (Including Hydrogels) Bearing Furan and/or Maleimide Moieties, Using Methacrylate Derivatives as Starting Reagents <i>C. García^a, D. Coelho^b, N. Gabilondo^a, A. Gandini^b, I. Mondragon^a, ^aGroup 'Materials + Technologies, Polytechnic School. University of the Basque Country, Donostia-San Sebastián ; ^bChemistry Department/CICECO. University of Aveiro. Aveiro, Portugal</i>
	12:30-14:00	Lunch
ECNP Workshop	14:00-15:00	Invited lecture #2 Carbon nanotubes and graphenes : From structure to surface functionalization <i>J. Kenny, CSIC Madrid, Spain - INSTM University Perugia, Italy</i>
Y. Res. Conference	15:00-15:20	Oral presentation #7 (Young Researcher) Epoxy-Graphene UV-Cured Nanocomposites <i>M. Martin-Gallego^a, R. Verdejo^a, M. Sangermano^b, M.A. Lopez-Manchado^a. ^aInstituto de Ciencia y Tecnología de Polímeros, CSIC, Madrid, Spain ; ^bPolitecnico di Torino, Dipartimento di Scienza dei Materiali e Ingegneria Chimica, Torino, Italy</i>
	15:20-15:40	Oral presentation #8 (Young Researcher) Graphene/Butyl Rubber Nanocomposites <i>S.K. Kumar^{a,c}, C. Robert^a, I. Pillin^a, M. Castro^a, A. Saiter^b, J.F. Feller^a, S.Thomas^c, Y.Grohens^a, ^aLIMATB Laboratory, Université de Bretagne Sud, Lorient, France ; ^bAMME-LECAP, EA 4528 International Laboratory, Institute of Material Research FED4114, Université de Rouen, Faculté des Sciences, Saint Etienne du Rouvray, France ; ^cSchool of Chemical Sciences, Mahatma Gandhi University, Kottayam, Kerala, India</i>
	15:40-16:00	Oral presentation #9 (Young Researcher) Preparation of graphene based polymer composite through direct exfoliation of graphite platelets in methyl methacrylate/poly(methyl methacrylate) <i>M. Cardinali^a, L. Valentini^a, J.M. Kenny^{a,b}, ^aUniversità di Perugia, Dipartimento di Ingegneria Civile e Ambientale, Terni, Italy; ^bInstituto de Ciencia y Tecnología de Polimeros, CSIC, Madrid, Spain</i>

	16:00-16:20	Oral presentation #10 (Young Researcher) Incorporation of Chemically Modified graphite Nanoplatelets in Low Viscosity PDMS <i>A. Guimont^a, E. Beyou^a, P. Cassagnau^a, G. Martin^b, P. Sonntag^b, ^aUniversité de Lyon, Université Lyon 1, IMP UMR CNRS#5223, Villeurbanne, France; ^bHutchinson Co., Centre de Recherches, Chalette-sur-Loing, France</i>
	16:20-16:40	Oral presentation #11 (Young Researcher) Layer-By-Layer Assembly of Flame Retardant Nanoarchitectures on PET Fabrics <i>F. Carosio, J. Alongi, G. Malucelli, Dipartimento di Scienza dei Materiali e Ingegneria Chimica, Politecnico di Torino -Sede di Alessandria, Alessandria, Italy</i>
	16:40-17:00	Coffee Break
	17:00-17:20	Oral presentation #12 (Young Researcher) Influence of CNT dispersion state on filler/matrix interface during breakage in MWNT epoxy nanocomposites <i>M. Pras, J. Duchet-Rumeau, J.F. Gérard, Université de Lyon, INSA Lyon, IMP UMR 5223, Villeurbanne, France</i>
	17:20-17:40	Oral presentation #13 (Young Researcher) Continuous Spinning of Carbon Nanotube Multifunctional Composite Fibers <i>C. Mercader, M.P. Stemplin, L. Bailly, P. Gaillard, CANOE (Composites en Aquitaine, Nanostructures et Electronique Organique), Pessac, France</i>
	17:40-18:00	Oral presentation #14 (Young Researcher) Orientation and alignment of Block Copolymers (BCPs)/CNTs in thermosettings <i>L. Casaban^{a,b}, M. Kirsten^c, P.M. Carrasco^c, I. García^d, M. Stamm^e, J.M. Kenny^a, ^aUniversity of Perugia, Terni, Italy; ^bCSICSpain; ^cIPF Dresden, Germany; ^dCIDETEC, Spain</i>
	18:00-18:20	Oral presentation #15 (Young Researcher) Montmorillonite and Carbon Nanotubes as a Reducing Flammability Fillers for Polymer Resins <i>S. Rojewski, R. Gąsiorowski, W. Gieparda, D. Wesolek, M. Władysław-Przybylak, Institute of Natural Fibres & Medicinal Plants, Poznań, Poland</i>
	18:20-18:40	Oral presentation #16 (Young Researcher) Multifunctional Interphase between MWNTs-glass fibre and epoxy matrix <i>J. Zhang, S. L. Gao, E. Mäder, J. W. Liu, Dept. Composite Materials, Leibniz-Institut für Polymerforschung Dresden e. V. (Leibniz Institute of Polymer Research), Dresden, Germany</i>

Tuesday November 8th, 2011

ECNP Workshop	8 :30-9 :30	Invited Lecture #3 Polysaccharide nanofillers <i>A. Dufresne, PAGORA, Grenoble, France</i>
Y. Res. Conference	9:30-9:50	Oral presentation #17 (Young Researcher) A Common Strategy to Extracting Cellulose Nano-Fillers from Different Plants <i>G. Mondragon^a, S. Fernandes^{a,b}, I. Algar^a, A. Arbelaiz^a, A. Retegi^a, C. Peña^a, I. Mondragon^a, ^aGroup 'Materials + Technologies', Polytechnic School. University of Pays Basque, Donostia - San Sebastián; ^bChemistry Department/CICECO. University of Aveiro Aveiro, Portugal</i>

	9:50-10:10	Oral presentation #18 (Young Researcher) Bio-Based Segmented Thermoplastic Polyurethanes and their Nanocomposites with Cellulose Nanocrystals <i>A. Saralegui, L. Rueda, B. Fernández-d'Arlas, I. Mondragon, A. Eceiza, M. Angeles Corcuera, 'Materials + Technologies' Group, Department of Chemical and Environmental Engineering, Polytechnic School, University of the Basque Country, Donostia-San Sebastián, Spain</i>
ECNP Workshop	10:10-11:10	Invited Lecture #4 Functional interphases in fiber-based composites and their characterization <i>E. Maeder, Dept. Composite Materials, Leibniz-Institut für Polymerforschung Dresden e. V. (Leibniz Institute of Polymer Research), Dresden, Germany</i>
	11:10-11:30	Coffee Break
Y. Res. Conference	11:30-11:50	Oral presentation #19 (Young Researcher) The Effect of the Interphase Zone and Surface Stresses on the Critical Debonding Stress Around Nanoparticles <i>M. Salviato, M.Zappalorto, M. Quaresimin, University of Padova, Department of Management and Engineering, Vicenza, Italy</i>
	11:50-12:10	Oral presentation #20 (Young Researcher) Filler Distribution and Chain Conformation in Nanocomposite Materials <i>M. Tatou^a, A.C. Genix^a, A. Banc^a, A. Imaz^b, J. Forcada^b, R. Schweins^c, I. Grillo^c, J. Oberdisse^a, ^aLaboratoire C. Coulomb, Université de Montpellier, Montpellier, France; ^bGrupo de Ingeniería Química, Facultad de Ciencias Químicas, University of the Basque Country, San Sebastian, Spain; ^cInstitut Laue Langevin, Grenoble, France</i>
	12:10-12:30	Oral presentation #21 (Young Researcher) Investigation of Relaxation at Nanocomposites Interfaces <i>D. Prevosto^a, M. Labardi^a, H.K. Nguyen^b, S. Capaccioli^{a,b}, M. Lucchesi^{a,b}, P. Rolla^{a,b}, ^aInstituto per i Processi Chimico-Fisici, CNR, Pisa, Italy; ^bDipartimento di Fisica "Enrico Fermi", Università di Pisa, Pisa, Italy</i>
	12:30-14:00	Lunch
ECNP Workshop	14:00-15:00	Invited Lecture #5 Interface micromechanics - From microbond test applied to fiber-based systems to CNT nanocomposite interfaces <i>H.D. Wagner, Weizmann Institute, Rehovot, Israel</i>
Y. Res. Conference	15:00-15:20	Oral presentation #22 (Young Researcher) Experimental Measurement of Transversal Micro and Macro Permeability During Compression Molding of Thermoplastic Matrix Composites <i>R.Gennaro^a, A.Greco^a, A.Maffezzoli^a, M.Christmann^b, G.Rieber^b, P.Mitschang^b, ^aDepartment of Engineering for Innovation, University of Salento, Lecce, Italy; ^bInstitut für Verbundwerkstoffe, Kaiserslautern, Germany</i>
	15:20-15:40	Oral presentation #23 (Young Researcher) A protocol for exfoliation of epoxy-based polymer layered silicate nanocomposites <i>F. Shiravand, J.M. Hutchinson, Y. Calventus, Department de Màquines i Motors Tèrmics, ETSEIAT, Universitat Politècnica de Catalunya, Terrassa, Spain</i>
	15:40-16:00	Oral presentation #24 (Young Researcher) Block copolymers based on poly(ϵ -caprolactone) and poly(lactic acid): synthesis and characterization <i>L. Peponi^a, I. Navarro-Baena^{a,b}, A. Marcos-Fernández^a, J.M. Kenny^a, ^aInstitute of Polymer Science and Technology ICTP - C.S.I.C., Spain; ^bUniversity of Perugia, Terni, Italy</i>
	16:00-	Coffee Break

	16:20	
	16:20-16:40	Oral presentation #25 (Young Researcher) Non-hydrolytic sol-gel process to obtain Epoxy/Titania nano-hybrid material <i>D. Morselli^a, M. Messori^a, M. Sangermano^b, F. Bondioli^a, ^aUniversità di Modena e Reggio Emilia, Dipartimento di Ingegneria dei Materiali e dell'Ambiente, Modena, Italy; ^bPolitecnico di Torino, Dipartimento di Scienza dei Materiali e Ingegneria Chimica, Torino, Italy</i>
	16:40-17:00	Oral presentation #27 (Young Researcher) Photoinduced Synthesis and Organization of Lamellar n-Alkylsiloxane Hybrid Films <i>L. Ni, A. Chemtob, C. Croutxé-Barghorn, Laboratory of Photochemistry and Macromolecular Engineering, University of Haute-Alsace, Mulhouse, France</i>
	17:00-17:20	Oral presentation #28 (Young Researcher) Multifunctional Luminescent Organic-Inorganic Hybrid Films <i>I. Roppolo^a, M. Messori^b, S. Perruchas^c, T. Gacoin^c, J.-P. Boilot^c, M. Sangermano^a, ^aPolitecnico di Torino, Dipartimento di Scienza dei Materiali e Ingegneria Chimica, Torino, Italy; ^bUniversità di Modena e Reggio Emilia, Dipartimento di Ingegneria dei Materiali e dell'Ambiente, Modena, Italy; ^cLaboratoire de Physique de la Matière Condensée, CNRS - Ecole Polytechnique, Palaiseau, France.</i>
	20:00	<i>Social Dinner</i>

Wednesday November 9th, 2011

ECNP Workshop	8:30-9:00	Invited Lecture #7 Carbon fibers <i>G. Dupupet, SOFICAR - TORAY Co, Abidos, France</i>
	9:30-10:30	Invited Lecture #8 Carbon Nanotubes : Production and review of industrial applications <i>D. Bonduel, NANOCYL Co, Belgium</i>
	10:30-11:00	Coffee Break - Welcome Coffee (Industrial Meeting)
Industrial ECNP Meeting	11:00-13:00	- ECNP General Presentation - How to Work With ECNP for Companies ? <i>J. Kenny - President ECNP - & J.F. Gérard - Vice-President -</i> - Research Projects with ECNP: Past and Present Running Projects <i>B. Voit, IPF, Dresden (Germany)</i> - Virtual Lab. Facilities <i>J. Ulanski, TUL Lodz, Poland</i> - Training Activities <i>G. Camino, Politecnico Torino, Sede Alessandria (Italy)</i> - Conferences and Workshops <i>J. Pflieger, IMC Prague (Czech Republic)</i> - General Discussion
	13:00-14:30	<i>Buffet (on-site)</i>
Poster Session	14:30-17:00	Flash poster presentations from young researchers (3' each) / Job Fair
		Poster session
ECNP Workshop	17:00-17:30	Invited Lecture #9 Glass fibers: From spinning and sizing processes to related composite materials <i>L. Peters, 3B-fibres Co., Belgium</i>
	17:30-18:00	Invited Lecture #10 Silica as reinforcing filler and silica surface modifications: Consequences on processing and properties <i>L. Guy, Rhodia Co., Colonges, France</i>

ECNP-GROWTH Board Meeting	18:00	ECNP-GROWTH Board Meeting
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Thursday November 10th, 2011

Workshop	8:30-9:30	Invited Lecture #11 Natural fibers and related composites <i>S. Thomas, University Kottayam, Kerala, India</i>
Y. Res. Conference	9:30-9:50 A.	Oral presentation #29 (Young Researcher) 100% Biosourced Composite Materials Based on Bamboo Fibers <i>A. Esposito^a, L. Dobircau^a, S. Royse^b, J.M. Saiter^a, ^aAMME International, Materials Engineering, Laboratoire d'Etude et de Caractérisation des Amorphes et des Polymères University of Rouen, France; ^bAMME International - Engineering Mechanics, Nebraska Center for Materials and Nanoscience, University of Nebraska-Lincoln, USA</i>
	9:50-10:10	Oral presentation #30 (Young Researcher) Modification of natural fibres to obtain composites with reduced flammability <i>R. Gąsiorowski, S. Rojewski, D. Wesolek Institute of Natural Fibres & Medicinal Plants, Poznań, Poland</i>
	10:10-10:30	Coffee Break
	10:30-10:50	Oral presentation #31 (Young Researcher) Using biobased thermoset resin, montmorillonite and natural fiber to prepare and characterize bio-nanocomposites <i>S. Rahimiashiyani, Dan Åkesson, Mikael Skrifvars, School of Engineering, University of Borås, Borås, Sweden</i>
	10:50-11:10	Oral presentation #32 (Young Researcher) Bionanocomposites based on biodegradable polymer nanoparticles <i>N. Rescignano^a, I. Armentano^a, R. Hernandez^b, C. Mijangos^b and J.M. Kenny^{a,b}, ^aMaterials Engineering Center, UdR INSTM, University of Perugia, Terni, Italy; ^bICTP-CSIC, Madrid, Spain</i>
	11:10-11:30	Oral presentation #33 (Young Researcher) High Tensile Strength Hydrogel-Clay Nanocomposites <i>B. Strachota, L. Kapralkova, M. Slouf, L. Matejka, Institute of Macromoleculr Chemistry, Acad. Science CZ, Praha, Czech Republic</i>
	11:30-11:50	Oral presentation #34 (Young Researcher) Complex Physical Hydrogels of Chitosan with Surfactants: Towards Tuning of Mechanical Properties <i>D.L. Morgado, A. Montembault, C. Ladavière, L. David, T. Delair, Université de Lyon, Université Lyon 1, IMP UMR CNRS#5223, Villeurbanne, France</i>
ECNP Workshop	11:50-12:40	Invited Lecture #12 Influence of interfaces on nanocomposite processing <i>J.F. GERARD, Université de Lyon, INSA Lyon, IMP UMR CNRS#5223, Villeurbanne, France</i>
	12:40-12:45	Closing Session

POSTERS

(posters will be boarded during all the ECNP events)

P1.- Synthesis and Characterization of Novel Organic-Inorganic Hybrids

S. Ponyrko, J. Plestil, L. Matejka, Institute of Macromolecular Chemistry, Acad. Science CZ, Praha, Czech Republic

P2.- Effects of Processing Variables on the Electrospinning of PLA Micro and Nano-Fibers

S. Pino del Alamo^{a,b}, J.M. Fernandez-Bravo^b, L. Peponi^b, J.M. Kenny^b, ^aUniversity Simón Bolívar, Venezuela; ^bInstitute of Polymer Science and Technology (ICTP - C.S.I.C.), Spain

P3.- Synthesis of Silver/Epoxy Nanocomposites by Visible Light Sensitization Using Highly Conjugated Thiophene Derivatives

S. Marchi^a, Y. Yagci^b, O. Sahin^b, T. Ozturk^b, M. Sangermano^a, S. Grassini^a, ^aDipartimento di Scienza dei Materiali e Ingegneria Chimica, Politecnico di Torino, Torino, Italy; ^bIstanbul Technical University, Department of Chemistry, Maslak, Istanbul, Turkey

P4.- Shear-Induced Molecular Orientation and Crystallization in Polypropylene-Talc Nanocomposites - Effects of the Talc Nature

B. Fiorentino, R. Fulchiron, J. Duchet-Rumeau, Université de Lyon, Université Lyon 1 & INSA Lyon, IMP UMR CNRS#5223, Villeurbanne, France

P5.- Morphological Study and Biological Behaviour of Physical Chitosan Hydrogels

S. Malaise^a, L. David^a, A. Montebault^a, T. Delair^a, B. Burdin^b, P. Alcouffe^a, L. Bordenave^c, M. Durand^c, S. Delmond^c, ^aUniversité de Lyon, Université Lyon 1, IMP UMR CNRS#5223, Villeurbanne, France; ^bUniversité de Lyon, Université Lyon1, Centre Technologique des Microstructures, Villeurbanne, France; ^cUniversité de Bordeaux UMR INSERM 1026, Bordeaux, France; PTIB, X. Arnoz Hospital, Pessac, France

P6.- Biosynthesis of Bacterial Cellulose Nanofibers Using Simple Culture

I. Algar^a, S. Fernandes^{a,b}, G. Mondragon^a, A. Retegi^a, A. Arbelaiz^a, C. Peña^a, I. Mondragon^a, ^aGroup 'Materials + Technologies' Polytechnical School. University Basque Country / Euskal Herriko Unibertsitatea. San Sebastián; ^bChemistry Department / CICECO. University of Aveiro. Aveiro, Portugal

P7.- Elaboration of Chitosan Films : Relationships between Microstructure and Swelling Properties

J. Becera, T. Delair, I. Royaud, L. David, ^aUniversité de Lyon, Université Lyon 1, IMP UMR CNRS#5223, Villeurbanne, France

P8.- Effect of the Carbon Black Content on the Properties of Carbon Black/Thermoplastic Polyurethane Nanocomposites

J. Donate-Robles, J.M. Martinez, Adhesion and Adhesives Lab., University Alicante, Alicante, Spain

P9.- Effet of Organically Modified Nanoclay on the Morphological, Rheological, and Mechanical Behaviour of Chlorobutyl Rubber Nanocomposites

A.K. Zachariah^a, A. Chandra^a, P.K. Mohammed^b, S. Thomas^a, School of Chemical Sciences, Mahatma Gandhi University, Kottayam, Kerala, India; ^bApollo Tyres, Vadodhara, Gujarat, India

P10.- Synthesis and characterization of PLLA-PCL-PLLA tri-block copolymers as precursors for shape memory bio-polymers

I. Navarro-Baena^{a,b}, L. Peponi^b, A. Marcos-Fernández^b, J. M. Kenny^b, ^aUniversity of Perugia, Terni, Italy; ^bInstitute of Polymer Science and Technology (ICTP - C.S.I.C.), Spain

P11.- Prediction of elastic properties of nanocomposites with oriented CNTs

M. Chieruzzi, L. Torre, J.M. Kenny, University of Perugia, Terni, Italy

P12.- Study of biobased epoxy or conventional epoxy matrix / fiber interfacial adhesion using the microdroplet test

W. Zhang, J. Duchet-Rumeau, J.F. Gérard, Université de Lyon, INSA Lyon, IMP UMR CNRS #5223, Villeurbanne, France

P13.- Multi-nanotube fiber for RTM-processed composites

V. Lutz, F. Lortie, J. Duchet-Rumeau, J.F. Gérard, Université de Lyon, INSA Lyon, IMP UMR CNRS #5223, Villeurbanne, France

P14.- Prediction of the Elastic Moduli of Nanoscale Structures Based on the Strain-Gradient Elasticity - Comparison with the Molecular Dynamics Simulation

J. Soliaev, S. Lurie, Institute of Applied Mechanics, Russian Acad. Sci., Russia

P15- Novel electroactive hybrid organic-inorganic polymer nanosystems: an outlook on sensing cells
M. Iurzhenko, G. Boiteux, YE. Mamunya, G. Seytre, E. Lebedev, Université de Lyon, Université Lyon 1, IMP UMR CNRS#5223, Villeurbanne, France

P16- Charge transport mechanism and thermal properties of novel Polycyanurates/MWCNTs nanocomposites,

L. Bardash^{a,b}, G. Boiteux^a, J. Ulanski^c, R. Grykie^c, I. Glowacki^c, A. Fainleib^b, ^aUniversité de Lyon, Université Lyon 1, IMP UMR CNRS#5223, Villeurbanne, France ; ^bIMC, NASU, Kiev, Ukraine, ^cDMP, TUL, Lodz, Pologne

P17- The studies of polymer nanocomposites based on thermoplastics and binary conductive nanofillers,, V. Levchenko, YE. Mamunya, G. Boiteux, E. Beyou, P. Alcouffe, E. Lebedev, ^aUniversité de Lyon, Université Lyon 1, IMP UMR CNRS#5223, Villeurbanne, France, ^bIMC, NASU, Kiev, Ukraine

P18- Conductive Nanocomposites based on Polyethylene and conductrice Nanofillers: Influence of processing conditions

M. Jouni, G. Boiteux, V. Massardier -Nageotte, Université de Lyon, Université Lyon 1 & INSA Lyon, IMP UMR CNRS#5223, Villeurbanne, France

P19- The conductive properties of polymers based on epoxy resin and heteropolyacids

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P20- Giant Permittivity in three-phase PVDF Composites

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P21- Nanofiller effect on the physical and thermal properties of acrylic waterborne coatings

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P22- Ionic liquids - A new generation of surfactants

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