

Programme Scientifique

Scientific Program

Mercredi 20 mars 2013

Wednesday 20 march 2013

9.00 - 9.30

Reception and registration of participants / Réception et enregistrement des participants

MORNING : PLENARY SESSION / MATINÉE : SESSION PLÉNIÈRE

9.30 - 9.50

Opening speech by the Chairman of AFICEP and the Chairman of the Scientific Committee / **Allocution d'ouverture** par le Président de l'AFICEP et par le Président du Comité Scientifique :

Alain ACHILLE - Prof. Jean L. LEBLANC

9.50 - 10.30

Opening speech IRC 2013 / Introduction d'ouverture IRC 2013 by Jacques MAIGNE, Chairman & CEO of HUTCHINSON
Mondialisation des marchés du caoutchouc industriel. Les points de vues et les réponses du Groupe HUTCHINSON.

Christian CASSE - Directeur R & D HUTCHINSON (France)

Les élastomères : un siècle et demi d'histoire et des matériaux de pointe

10.30 - 11.10

Pierre ROBERT - Directeur des Programmes de Recherche - MICHELIN (France)

Sciences du Caoutchouc et mobilité durable

11.10 - 11.30

Pause

11.30 - 11.50

Fazilet CINARALP - General Secretary of ETRMA (European Tyre & Rubber Manufacturers' Association)

Les enjeux européens majeurs

11.50 - 12.10

Didier FEGLY - Président Directeur Général SACRED et Président du Pôle de Compétitivité ELASTOPOLE (France)

Innovation et Compétitivité

12.10 - 12.30

Nicolas SANCHEZ - MINISTERE DU REDRESSEMENT PRODUCTIF - DGCIS (Direction Générale de la Compétitivité de l'Industrie et des Services)

Actions du Ministère pour le soutien à l'Industrie du Caoutchouc

12.30 - 14.00

Free lunch and visit of the Exhibition / Déjeuner libre et visite de l'exposition



AFTERNOON : PARALLEL SESSIONS / APRÈS-MIDI : SESSIONS PARALLÈLES

	THEME 2 PROCESSING, OPTIMIZATION OF PROCESSES TECHNIQUES DE TRANSFORMATION ET OPTIMISATION DES PROCEDES	THEME 1 CHEMICALS ASPECTS AND RAW MATERIALS ASPECTS CHIMIQUES, MATIERES PREMIERES ET FORMULATION
14.00 - 14.40	Guest speaker / Conférencier invité Prof.Dr.-Ing.Andreas LIMPER, Member of the Management Board, HARBURG-FREUDENBERGER Maschinenbau GmbH, (Germany) New angles in mixing of rubber compounds	Guest speaker / Conférencier invité Dr. Luca GIANNINI Nanofiller Project Leader, PIRELLI TYRE, (Italia) A Rubber Vision of High Aspect Ratio Nanofillers
14.40- 15.00	Rheological behavior of NR by LAOS analysis in relation with postharvest and processing parameters F. DEME - LRCCP J. SAINTE-BEUVE - CIRAD (France)	New material solutions for harsher sevice conditions of automotive hose S. BOUVIER - DUPONT PERFORMANCE POLYMERS (Suisse)
15.00- 15.20	Efficiencie énergétique & réduction des pertes matière lors de la fabrication des articles moulés en caoutchouc J-L. MAIRE - DESMA ELASTOMERTECHNIK (Germany)	Synthesis of telechelic polyisoprenic oligomers by cross-metathesis reaction from natural or synthetic rubber A. NOURRY - UNIVERSITE DU MAINE (France)
15.20 - 15.40	Industrial compoundings of elastomers with nanofillers M. CHARMAN - EMAC (France)	Modified SSBR for Silica & Carbon Black Containing Tires S.THIELE - STYRON EUROPE GMBH (Germany)
15.40 - 16.00	Continuous rubber recycling using a co-rotating twin screw extruder A. GALLO - F.LLI MARIS (Italia)	Noxite® High Performance High Temperature Acrylate Rubbers (HT-ACM) Improved media resistance in fuels and new highly addivated engine and transmission oils - A comprehensive study K. ZOUMIS - UNIMATEC CHEMICALS EUROPE (Germany)
16.00 - 16.20	Pause and visit of the exhibition	Novel polyurethane foams based on hydroxytelechelic oligomers of natural rubber T. K. N. TRAN - UNIVERSITE DU MAINE - (France)
16.20 - 16.40	Elastomer network investigation by solid NMR B. GABRIELLE - E. GOMEZ - HUTCHINSON (France)	Pause and visit of the exhibition
16.40 - 17.00	Rubber to metal bonded assemblies Characterization of the adhesion for different formulas of elastomers, metals and bonding agents. Correlation between kinetic crosslinking of rubber compounds and bonding agents F. BRUNO - LRCCP (France)	Identification des facteurs de variabilité du caoutchouc naturel pour développer des nouveaux grades à variabilité réduite et contrôlée destinés aux applications antivibratoires - Projet collaboratif CANAOPT J. SAINTE-BEUVE - CIRAD J-F. PILARD - UNIVERSITE DU MAINE (France)
17.00 - 17.20	How to reduce fatigue life dispersion starting from the study of 3D distribution of ZnO agglomerates by computed X-ray microtomography K. LE GORJU - HUTCHINSON (France)	HT-ACM XP - The Winning Combination of Processing and Performance for High-Temperature, Oil Resistant Hose P. ABRAHAM - ZEON CHEMICALS EUROPE (England)
17.20 - 17.40	Electron Beam Irradiated Natural Rubber-Polyaniline Dodecylbenzenesulfonate Blends Y. KOK-CHONG - MALAYSIAN RUBBER BOARD (Malaysia)	GUAYULE / HEVEA latex glove comparison S. PALU - CIRAD (France) M.DORGET-CTTM (France) D.GUERIN-PIERCAN (France)

Jeudi 21 mars 2013

Thursday 21 march 2013

MORNING : PARALLEL SESSIONS / MATINÉE : SESSIONS PARALLÈLES

	THEME 2 PROCESSING, OPTIMIZATION OF PROCESSES TECHNIQUES DE TRANSFORMATION ET OPTIMISATION DES PROCEDES	THEME 1 CHEMICALS ASPECTS AND RAW MATERIALS ASPECTS CHIMIQUES, MATIERES PREMIERES ET FORMULATION	THEME 4 RUBBER PRODUCTS : INNOVATION, NEW CONCEPTS, NEW APPLICATIONS INNOVATION DANS LA CONCEPTION ET L'APPLICATION DES PRODUITS EN CAOUTCHOUC
9.30 9.50	Macrodispersion of amorphous precipitated silica in an elastomer matrix : role of silica intrinsic parameters E. PEUVREL-DISDIER - MINES PARIS TECH CEMEF (France)	Elastomeric composites based on well-defined silica-poly(styrene) hybrid materials prepared via atom transfer radical polymerization I. MORA-BARRANTES - INSTITUTE OF POLYMER SCIENCE AND TECHNOLOGY (Spain)	Wear of gum & carbon black filled vulcanized SBR nanocomposites A. K. BHOWMICK - INDIAN INSTITUTE OF TECHNOLOGY PATNA (India)
9.50 10.10	Quality and productivity optimisation of rubber part molding R. DETERRE - UNIVERSITE DE NANTES P. DABO - LRCCP V. ZARIFE - HUTCHINSON (France)	Graft copolymers of methyl methacrylate different types of natural rubber latex A. B. ROHANI - A. HASHIM - MALAYSIAN RUBBER BOARD (Malaysia)	Thermal measurements on elastomeric materials on scales ranging from structural samples to microstructure Y. MARCO - I. MASQUELIER - LBMS ENSTA BRETAGNE (France)
10.10 10.30	Consommation d'énergie et lien avec la productivité en injection du caoutchouc S. DEMIN - REP (France)	New crosslinking concept for rubber materials M. MEZGER - LANXESS DEUTSCHLAND (Germany)	The use of EPDM rubbers in cables accessories B. DALBE - NEXANS (France)
10.30 10.50	Efficiency through intelligence. Advanced techniques for rubber mixing process control S. BRASSAS - MIXCONT AB (Sweden)	Tailored carbon black morphology : the key to achieve the best compromise for in rubber properties B. SCHWAIGER - ORION ENGINEERED CARBONS (Germany)	Pause and visit of the exhibition
10.50 11.10	Pause and visit of the exhibition	Pause and visit of the exhibition	Guest speaker / Conférencier Invité Prof.P.J. CARREAU - Professeur Emerite CREPEC (Center for Applied Research on Polymers and Composites) - ECOLE POLYTECHNIQUE DE MONTREAL, QC (Canada) Phase Morphology Development of EPDM/PP Blends During Dynamic Vulcanization
11.10 11.30	A new paradigm in mixing / mechanical coagulation of Hevea Latex and Carbon Black N. CHIEW-SUM - TAYLORS UNIVERSITY (Malaysia)	Use of Sulphur donors in HP-tire and technical rubber applications H. KLEINKNECHT - RHEINCHEMIE RHEINAU (Germany)	

11.30 11.50	Analyse de l'adhésion lors du moulage des pièces en caoutchouc - Projet collaboratif THERMEL R. DETERRE - UNIVERSITE DE NANTES (France)	Preparation and properties of natural rubber reinforced with carbon nanotubes Y.-L. LU - BEIJING UNIVERSITY OF CHEMICAL TECHNOLOGY (China)	Influence of carbon black properties on the surface appearance of extruded articles M. WARSKULAT - ORION ENGINEERED CARBONS (Germany)
11.50 12.10	Masterbatch mixing of EPDM - CNT nanocomposites J. VUORINEN - TAMPERE UNIVERSITY OF TECHNOLOGY (Finland)	The effect of vulcanization on multi-interaction of SBR filled with carbon black C. SUN CHONG - QINGDAO UNIVERSITY OF SCIENCE AND TECHNOLOGY (China)	Viscoelastic and reinforcement properties of rubber blends filled with silica particles in relation to their morphologies P. GRAU - SOLVAY / CNRS (France)
12.10 13.40	Free lunch and visit of the exhibition Déjeuner libre et Visite de l'exposition		

AFTERNOON : PARALLEL SESSIONS / APRÈS-MIDI : SESSIONS PARALLÈLES

13.40 14.40	POSTERS PRESENTATION IN THE EXHIBITION PRESENTATION DES POSTERS DANS LE SALON		
	THEME 2 PROCESSING, OPTIMIZATION OF PROCESSES TECHNIQUES DE TRANSFORMATION ET OPTIMISATION DES PROCÉDES	THEME 1 CHEMICALS ASPECTS AND RAW MATERIALS ASPECTS CHIMIQUES, MATIÈRES PREMIÈRES ET FORMULATION	THEME 4 RUBBER PRODUCTS : INNOVATION, NEW CONCEPTS, NEW APPLICATIONS INNOVATION DANS LA CONCEPTION ET L'APPLICATION DES PRODUITS EN CAOUTCHOUC
14.40 15.00	Mesure en ligne et modélisation du champ de température au sein d'un écoulement cylindrique d'élastomère en extrusion - Projet collaboratif RHEOTEL R. DETERRE - UNIVERSITE DE NANTES (France)	Effect of silane coupling agent on the morphology of silica reinforced natural rubber S. S. SARKAWI - UNIVERSITY OF TWENTE (The Netherlands)	Guest speaker / Conférencier Invité Prof. Dr. Seiichi KAWAHARA NAGAOKA UNIVERSITY OF TECHNOLOGY, JAPAN Mechanical Properties of Natural Rubber with Nanomatrix Structure
15.00 15.20	Réduction du temps de vulcanisation dans l'injection des élastomères - Développements récents et retours d'expérience T. FABARIUS - LWB STEINL GmbH & CoKG (Germany)	Safety Cable applications: New concepts for high Ashes cohesion D. MARIOT - BLUESTAR SILICONES (France)	

	THEME 3 HEALTH, SAFETY, ENVIRONMENTAL ASPECTS, END OF LIFE ECO-CONCEPTION ET VALORISATION EN FIN DE VIE, SECURITE, HYGIENE, ENVIRONNEMENT	THEME 1 CHEMICALS ASPECTS AND RAW MATERIALS ASPECTS CHIMIQUES, MATIERES PREMIERES ET FORMULATION	THEME 4 RUBBER PRODUCTS : INNOVATION, NEW CONCEPTS, NEW APPLICATIONS INNOVATION DANS LA CONCEPTION ET L'APPLICATION DES PRODUITS EN CAOUTCHOUC
15.20 15.40	<p>Safer and odourless alternatives to dicumyl peroxide in the crosslinking of foamed EVA Alfredo DEFRANCISCI - ARKEMA (France)</p>	<p>Silicone elastomers beyond traditional self-bonding and self lubricating technology J. ISMEIER - WACKER CHEMIE (Germany)</p>	Pause and visit of the exhibition
15.40 16.00	<p>Reach and Applications to elastomers and their formulation A. PICHARD - INERIS (France)</p>	Pause and visit of the exhibition	<p>Investigation of adhesive properties of polyurethanes prepared from cis-1, 4-polyisoprene S. BISTAC - UNIVERSITE DE HAUTE ALSACE (France)</p>
16.00 16.20	Pause and visit of the exhibition	<p>Theme 4 - Influence of the formulation of elastomers on their fatigue properties in crack growth H. BAURRIER - METRAVIB ACOEM GROUP P. DOREY - METRAVIB ACOEM GROUP F. ROUILLARD - LRCCP (France)</p>	<p>Impact of abrasion and friction on the chemical modification of rubber-based composites T. LINCK - UNIVERSITE DE HAUTE ALSACE (France)</p>
16.20 16.40	<p>Update on allergic contact dermatitis due to chemical additives in rubber gloves M-N. CREPY - HOPITAL UNIVERSITAIRE DE PARIS CENTRE COCHIN BROCA HOTEL DIEU - Service de Pathologie Professionnelle (France)</p>	<p>A propos de la caractérisation en fatigue des élastomères par méthode thermographique G. BERTON - CERMEL (France)</p>	<p>Temperature Dependence of Filled-Rubber Viscoelasticity Y. ISONO - NAGAOKA UNIVERSITY OF TECHNOLOGY (Japan)</p>
16.40 17.00	<p>Water based bonding agents for rubber to metal bonding A. BENAROUS - CIL (England)</p>		<p>Chemical analysis of silicone rubber O-ring after hydrogen pressure cycle test H. FUJIWARA - NATIONAL INSTITUTE OF ADVANCED INDUSTRIAL SCIENCE AND TECHNOLOGY (AIST) (Japan)</p>
17.00 17.20	<p>Modification of cellulose for application in rubber Blends J. KUBACKOVA - FACULTY OF CHEMICAL AND FOOD TECHNOLOGY, INSTITUTE OF POLYMER MATERIALS, DEPARTMENT OF PLASTICS AND RUBBER (Slovakia)</p>	<p>17.30-19.30 SNCP 150th anniversary meeting* SNCP - French rubber manufacturers' association SNCP History: 1863 - 2013, the French and the European Rubber Industry in 2013, rubber industry challengers for the coming years</p>	<p>New NBR/HNBR Adhesives for Oil/Gas Drilling Applications B.CARNEY - LORD CORPORATION (USA)</p>
17.20 17.40	<p>Overview of current alternative methods in animal testing in the context of REACH A. PERY - INERIS (France)</p>	<p><i>* Caution : French conference (without simultaneous translation). Compulsory Registration. See further information and registration form in the program</i></p> <p><i>Place of the conference :</i> <i>Pavillon Royal - Paris</i></p>	<p>Improved fire resistance of railway suspension springs B. MORTEL - TRELLEBORG INDUSTRIAL AVS (England)</p>

Vendredi 22 mars 2013

Friday 22 march 2013

MORNING : PARALLEL SESSIONS / MATINÉE : SESSIONS PARALLÈLES

	THEME 3 HEALTH, SAFETY, ENVIRONMENTAL ASPECTS, END OF LIFE ECO-CONCEPTION ET VALORISATION EN FIN DE VIE, SECURITE, HYGIENE, ENVIRONNEMENT	THEME 4 RUBBER PRODUCTS : INNOVATION, NEW CONCEPTS, NEW APPLICATIONS INNOVATION DANS LA CONCEPTION ET L'APPLICATION DES PRODUITS EN CAOUTCHOUC	THEME 5 THE RUBBER INDUSTRY, FUTURE AND PROSPECTS PROSPECTIVES ET PERSPECTIVES DE L'INDUSTRIE DU CAOUTCHOUC
9.30 9.50	Vulcanization fumes: Presentation of a new method of analysis, a tool for the formulation H. KHALFOUNE - LRCCP (France)	Effect of Stress Induced Crystallization (SIC) and Temperature Induced Crystallization (TIC) in Natural Rubber Compound (NR) for low temperature railways applications. N. ADDES - M. MANGAVEL - HUTCHINSON PAULSTRA (France)	Theme 3 - Calcined Neuburg Siliceous Earth: New product line offers improvements for automotive and building sealings, washing machine gaskets and cables. An overview. H. OGGERMÜLLER - HOFFMANN MINERALS (Germany)
9.50 10.10	Processing and Properties of Cassava starch reinforced natural rubber composites A.R. AZURA - UNIVERSITI SAINS MALAYSIA (Malaysia)	Durability test of silicone rubber O-ring for high-pressure hydrogen vessels A. KOGA - NOK CORPORATION (Japan)	Guest speaker / Conférencier Invité Dr Antonio Carlos SPALLETTA Director, ASPA, BRASIL Situation et perspectives de l'industrie du caoutchouc au Brésil et en Amérique du Sud
10.10 10.30	Na free solution for ETU replacement in EPDM I. YARZABAL - MLPC (France)	Tribological behavior of elastomers treated by ion implantation N. ROCHE - LRCCP (France)	
10.30 10.50	Pause and visit of the exhibition	The correlation of spin-spin relaxation time analyzed by pulsed ¹ H-NMR and triad distribution of crude acrylonitrile butadiene rubber S. NISHIMURA - KYUSHU UNIVERSITY (Japan)	Rubbers : current needs and future challenges for the car industry L. GERVAT - RENAULT L. BECHU - PSA (France)
10.50 11.10	Application of corn starch as a component of rubber blends P. VANOVA - FACULTY OF CHEMICAL AND FOOD TECHNOLOGY, INSTITUTE OF POLYMER MATERIALS, DEPARTMENT OF PLASTICS AND RUBBER (Slovakia)	Pause and visit of the exhibition	Pause and visit of the exhibition
11.10 11.30	Fire resistant rubbers for new railroad specifications Y. FROMONT - HUTCHINSON CDR (France)	Aging processes - Mechanisms and quantitative characterization Dr. GIESE - DIK (Germany)	Elastopôle ; the French Rubber and Polymers Competitiveness Cluster B. MARTIN - ELASTOPOLE (France)

11.30 11.50	Nouveau procédé de dévulcanisation W. MADDEVER - WATSON BROWN (Canada)	Fatigue peeling at interfaces in tyres J. BUSFIELD - QUEEN MARY UNIVERSITY OF LONDON (England)	Porosity and Topography of Silicone (PDMS) Matrix based materials in comparison with Extracellular Matrix for Esophageal Bioscaffolds M. PUTMAN - COLOMBIA UNIVERSITY (USA)
11.50 12.10	EU chemical legislation and in particular on the rubber industry proactive approach/contribution on dangerous chemicals substitution L. ZULLO - ETRMA (Belgium)	Some New Results on Elastomer Nanocomposites Explored by Molecular Simulation L. ZHANG - BEIJING UNIVERSITY OF CHEMICAL TECHNOLOGY (China)	Polymer/Carbon nanotube composites with high dielectric constant and low dielectric loss prepared by electrospun-in-situ film-forming M. TIAN - BEIJING UNIVERSITY OF CHEMICAL TECHNOLOGY (China)
12.10 13.40	Free lunch and visit of the exhibition Déjeuner libre et Visite de l'exposition		

AFTERNOON : PARALLEL SESSIONS / APRÈS-MIDI : SESSIONS PARALLÈLES

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13.40 14.00	Modified starch/SBR biocomposites : morphology, mechanical, thermal, water absorption behavior and Biodegradability L. MEI-CHUN - C. UR RYONG - KOREA UNIVERSITY OF TECHNOLOGY AND EDUCATION - (Republic of Korea)	Modèle viscoélastique pour la représentation du comportement des élastomères à froid. J-L. SORTAIS - HUTCHINSON (France)	Applications of Rubbers for Electrical Energy Harvesting from Sea Waves N. CHANGWOON - CHONBUK NATIONAL UNIVERSITY/POLYMER NANO SCIENCE AND TECHNOLOGY (Republic of Korea)
14.00 14.20	Relationships between the volatile fume species and the rubber formulation Dr. U. GIESE - DIK (Germany) M. LE HUY - (LRCCP (France)	In-situ FTIR study on CIS1,4/TRANS 1,4 Isomerization during vulcanization and hot air ageing P. ZHANG - QINGDAO UNIVERSITY OF SCIENCE AND TECHNOLOGY (China)	New shape memory elastomers based on ionic transition M. ALONSO MALMIERCA - INSTITUTE OF POLYMER SCIENCE AND TECHNOLOGY (Spain)
14.20 14.40	Sustainable Material Development - Raw Materials, Reactions and Extractable Contents G. STEIN - HOCHSCHULE RHEINMAIN E. OSEN - FREUDENBERG SEALING TECHNOLOGIES (Germany)	Dynamic properties of carbon black and silica filled rubbers F. ZHAO - QINGDAO UNIVERSITY OF SCIENCE AND TECHNOLOGY (China)	11th Worldwide Tire Survey. Tire Rolling resistance D. ROUCKHOUT - EXXONMOBIL (Belgium)

14.40 15.00	Devulcanization of whole passenger car tire material W. DIERKES - UNIVERSITY TWENTE (The Netherlands)	Pause and visit of the exhibition
15.00 15.20	Pause and visit of the exhibition	In-situ volume measurement of acrylonitrile rubber in high -pressure hydrogen H. ONO - KYUSHU UNIVERSITY (Japan)
15.20 15.40	Preparation of waste rubber powder / Polypropylene blend via in-situ comptabilization P. LI - QINGDAO UNIVERSITY OF SCIENCE AND TECHNOLOGY (China)	Understanding the rubber network structure by using time-domain NMR : Vulcanization and ageing processes P. POSADAS - INSTITUTE OF POLYMER SCIENCE AND TECHNOLOGY (Spain)
15.40 16.00	Renewable and sustainable esters for elastomers S.O'ROURKE - HALLSTAR (USA)	Effects of the hardness-resilience product on the abrasion properties of vulcanizates J. SUN - QINGDAO UNIVERSITY OF SCIENCE AND TECHNOLOGY (China)
16.00 16.20	L'improbable potentiel sensoriel du caoutchouc : différenciation de la matière pour de nouvelles applications R. CHARVET-PELLO - C. DOMELIER - CERTESENS (France)	Fatigue crack propagation in reinforced natural rubber C. FAYOLLE - CNRS / SOLVAY (France)
16.20 16.40		Influence of temperature and cure formulation on the fatigue durability of transfinity composites V. TIRUMALA - D.REYNOLDS - CABOT CORPORATION (USA)
16.40 17.00	CONCLUSION	

Partners of the Congress on January 23, 2013



Program subject to modification / Programme sous réserve de modification

