

Program Overview

Monday, 2nd June 2014

14.15 – 18.30	Registration
18.30 – 20.00	Welcome Drink

Tuesday, 3rd June 2014

8.00 – 8.30	Registration
8.30 – 9.30	Opening Session : Welcome and Opening Remarks <i>Nikitenko S., Chemat F.</i> <i>Ethis E. (Avignon University)</i> <i>Pellet-Rostaing S. (ICSM)</i> <i>Mason T.</i>
Session 1: Fundamental Aspects	
9.30 – 10.15	(Plenary) - Sonochemistry: Current Trends and Future Directions <i>Mason T.J.</i>
10.15 – 10.35	Sonochemistry under Hydrothermal Conditions <i>Cau C., Chave T., Nikitenko S. I.</i>
10.35 – 10.55	Cavitation Conditions Reproducibility <i>Dezhkunov N.V., Francescutto A., Calligaris F., Lanin V.L.</i>
10.55 – 11.15	Dose-Effect Studies during the Characterisation of a Sonoreactor <i>Memoli G., Wang L., Hodnett M., Zeqiri B.</i>
11.15 – 11.45	Coffee Break
11.45 – 12.05	Fully Compressible 3D Simulation of Cavitation on a Small Ultrasonic Horn <i>Žnidarčič A., Mettin R., Dular M.</i>
12.05 – 12.25	Influence of an Additional Liquid Flow on the Acoustic Field Induced by Power Ultrasound (20 and 40 kHz): Experimental and Numerical Determinations <i>Mazue G., Orandrou S., Bonnet D., Barthes M., Viennet R., Hihn J-Y., Bailly Y.</i>
12.25 – 12.45	Evaluation of Different Parameters on Hydroxyl Radical Formation in Hydrodynamic-Acoustic-Cavitation (HAC) <i>Braeutigam P., Franke M., Anschuetz F., Ondruschka B., Stelter M.</i>
12.45 – 14.15	Lunch Break
Session 2: Ultrasonic Processing	
14.15 – 14.45	(Keynote) - Optimization of Sludge Pretreatment by Very Low Frequency Sonication under Pressure <i>Tuan Le N., Barthe L., Julcour-Lebigue C., Delmas H.</i>
14.45 – 15.05	Integrated Utilization of Triglycerides by Sonochemical and Photocatalytical Reforming <i>Mizukoshi Y., Konagaya M., Ziylan A., Ince N. H., Masahashi N., Maeda Y.</i>
15.05 – 15.25	Ultrasound Technology Combined with Conventional and Innovative Extraction Techniques <i>Rombaut N., Fabiano-Tixier A.-S., Bily A., Cravotto G., Chemat F.</i>

15.25 – 15.45	Intensification of Extraction of Water-soluble Antioxidant Polysaccharides from <i>G. lucidum</i> using Ultrasound: a Detailed Comparison with Conventional Methods <i>Manickam S., Alzorqi I.</i>
15.45 – 16.15	Coffee Break
16.15 – 16.45	(Keynote) - Ultrasound as a Tool for Process Intensification <i>Van Gerven T.</i>
16.45 – 17.05	Environmental Friendly Oxidative Strategy for Kraft Lignin Valorization: Potentiality of Ultrasound <i>Napoly F., Draye M., Jean-Gérard L., Goux-Henry C., Andrioletti B.</i>
17.05 – 17.25	What Sonochemical Strategies to Produce Chemicals from Lignocellulosic Biomass? <i>Chatel G., De Oliveira Vigier K., Jérôme F.</i>
17.25 – 17.45	Impact of Ultrasound on Solid/Liquid Extraction of Polyphenols from Maritime Pine Sawdust: Comprehension of Phenomena, Upscaling and Industrialization <i>Meullemiestre A., Petitcolas E., Le Bourvellec C., Chemat F., Rezzoug S.A.</i>
17.45 – 19.30	Poster Session and Wine Tasting

Wednesday, 4th June 2014

Session 3: Fundamental Aspects	
9.00 – 9.45	(Plenary) - Inside a Collapsing Bubble: Sonoluminescence and Conditions during Cavitation <i>Suslick, K.S.; Zeiger, B.W.; Xu, H.</i>
9.45 – 10.05	Influence of US Frequency on Swan Band Sonoluminescence and Sonochemical Activity in t-BuOH Aqueous Solutions <i>Pflieger R., Ndiaye A.A., Chave T., Nikitenko S.I.</i>
10.05 – 10.25	Behavior, Size and Control of Cavitation Bubbles Generated by HIFU <i>Hallez L., Touyeras F., Hihn J.Y., Ashokkumar M.</i>
10.25 – 10.45	Thermochromic Tissue-mimicking Materials for Investigation of Temperature Rise Induced by HIFU Transducers <i>Troia A., Magnetto C., Musacchio C., Cuccaro R., Pavese M.</i>
10.45 – 11.15	Coffee Break
11.15 – 11.45	(Keynote) - Sonochemistry and Bubble Dynamics <i>Mettin R., Cairós Barreto C., Eisener J., Schneider J., Thiemann A., Troia A.</i>
11.45 – 12.05	Perturbation of a Single Bubble by a Micron-Sized Fiber <i>Louisnard O., Montes-Quiroz W., Baillon F., Espitalier F.</i>
12.05 – 12.25	Ultrasound Assisted Freezing. Theoretical Calculation of the Number of Ice Nuclei Generated by a Single Bubble in Acoustic Cavitation <i>Cogné C., Labouret S., Peczalski R., Louisnard O., Baillon F., Espitalier F.</i>
12.25 – 12.45	From Bubble Clusters to Sonocrystallisation <i>Jiao J., He Y., Kentish S., Ashokkumar M., Manasseh R., Lee J.</i>
12.45 – 14.15	Lunch Break
Session 4: Environmental Remediation	
14.15 – 14.45	(Keynote) - Combined Treatment Technology Based on Synergism between Cavitation and Ozone <i>Gogate P. R., McGuire D., Chapas G., Wolfe T., Blum B., Singer R.W.</i>

14.45 – 15.05	Power Ultrasound for Wastewater and Biomass Treatment <i>Neis U., Banduch I.</i>
15.05 – 15.25	Removal of Chemicals from Wastewater Treatment Plants by Ultrasonic Ozone Activation <i>Fendt S., Oliveri C.</i>
15.25 – 15.45	Ultrasonic Methods for Oil Sludge Separation and Water Purification <i>Abramova A., Abramov V., Bayazitov V., Vexler G., Mullakaev M., Zaytsev N.</i>
15.45 – 16.15	Coffee Break
16.15 – 16.35	Influence of Wastewater Effluent Components on the Degradation of a Series of Pharmaceuticals Using Continuous and Pulsed Wave Ultrasound <i>Xiao R., Wei Z., Chen D., Weavers L.K.</i>
16.35 – 16.55	Treatment of Aqueous Atrazine by Selected Advanced Oxidation Processes <i>Kidak, R., Dogan, S.</i>
16.55 – 17.15	Sono-activation of Plant Bagasse Waste Fibers Modified in Alkali Condition to Heavy Metal Adsorbents <i>Kobayashi T., Hirano K., Tagaya M., Sugita S. S.</i>
17.15 – 17.35	Sonocatalytic Destruction of Paracetamol Using Pd-supported TiO ₂ Nanoparticles <i>Ziylan A., Maeda Y., Ince N.H.</i>
17.35 – 18.15	Committee Session & ESS General Meeting
18.15 – 19.15	Poster Session
19.15 – 20.00	Free Time
20.00 – 23.00	Gala Dinner & Poster Prizes

Thursday, 5th June 2014

Session 5: Ultrasonic Processing	
9.00 – 9.45	(Plenary) - Applications of Ultrasound in Food and Bioprocessing <i>Ashokkumar M.</i>
9.45 – 10.05	Design and Operation Considerations for the Ultrasonic Separation of Milk Fat <i>Leong T., Johansson L., Juliano P., Mawson R., McArthur S., Manasseh R.</i>
10.05 – 10.25	Lipid Oxidation in Milk Depends on Ultrasound Processing Conditions <i>Juliano P., Torkamani A.E., Leong T., Kolb V., Watkins P., Ajlouni S., Singh T.K.</i>
10.25 – 10.45	Cross Flow Ultrafiltration of Skim Milk Assisted by Ultrasound: Multi-Scale Characterization <i>Jin Y., Hengl N., Baup S., Pignon F., Gondrexon N., Sztucki M., Narayanan T., Gésan-Guiziou G.</i>
10.45 – 11.15	Coffee Break
11.15 – 11.45	(Keynote) - Intensification of heat and mass transfer by ultrasound: application to membrane separation process and heat exchangers <i>Gondrexon N., Cheze L., Jin Y., Legay M., Hengl N., Baup S., Boldo P., Pignon F., Talansier E.</i>
11.45 – 12.05	Advanced Calibration of a High-Temperature Cavitometer <i>Tzanakis I., Hodnett M., Eskin D.G., Lebon B.</i>
12.05 – 12.25	Effect of Ultrasonic Frequency on the Disruption of Algae <i>Yamamoto K., Kurokawa M., King P.M., Wu X., Mason T.J., Joyce E.M.</i>

12.25 – 12.45	The Use of Sonochemistry for Cooked Sausages Production <i>Krasulya O.N., Bogush V.I., Misharina T.A.</i>
12.45 – 14.15	Lunch Break

Session 6: Materials	
14.15 – 14.45	(Keynote) - Sonochemical Approaches to Enhanced Oil Recovery <i>Abramov V., Abramova A., Bayazitov V., Altunina L., Gerasin A., Pashin D.</i>
14.45 – 15.05	Heterogeneous Catalysts on Cavitation Interface <i>Shchukin D., Sergeev A.</i>
15.05 – 15.25	Surface Decorated Photocatalytic TiO ₂ : A Sonochemical Method to Improve its Activity <i>Stucchi M., Bianchi C.L., Pirola C., Argirusis C., Sourkouni G., Sakkas P.M., Kanellopoulou D., Cerrato G., Morandi S.</i>
15.25 – 15.45	Sonochemical Synthesis of Metallic Cu and Ni(OH) ₂ Particles and their Decoration on Ceramic Substrates <i>Poulia A., Sakkas P.M., Kanellopoulou D., Sourkouni G., Argirusis Chr.</i>
15.45 – 16.15	Coffee Break
16.15 – 16.45	(Keynote) - Feasibility of Low Frequency Ultrasound for Crude Oil Demulsification <i>Flores É.M.M., Antes F.G., Guarnieri R.A., Guimarães R.C.L., Ferreira B.M.S., Pereira J.S.F., Diehl L.O.</i>
16.45 – 17.00	ESS14 Picture
17.00 – 17.20	Sonochemistry for the Synthesis of Controlled Nanostructured Oxide Powders: Phase Transitions and Sintering <i>Djurado E.</i>
17.20 – 17.40	Ultrasound-assisted Enhancement of Al ₃ Ni ₂ Intermetallic Phase in Binary AlNi Alloys toward Hydrogen Evolution Reaction <i>Cherepanov P.V., Andreeva D.V.</i>
17.40 – 18.00	Ultrasound-assisted Phase Segregation in Metal Particles and Formation of Multimetal Composites <i>Andreeva D.V., Cherepanov P.V.</i>
18.00 – 18.20	Sonochemically Produced Hollow Polymer Microspheres for Temperature Responsive Delivery <i>Price G.J., Craddock, E.G., Skinner E.K.</i>
18.20 – 18.40	Synthesis of β-In ₂ S ₃ Nanoparticles via Sonochemical Method Using Diverse Indium Precursors <i>Srt N. , Kristl M.</i>
18.40 – 19.00	Improving the Solubilization of Material using Ultrasound-assisted Enzymatic Hydrolysis: The Case of a Red Seaweed <i>Le Guillard C., Dumay J., Perrier A., Vibert R., Bergé J.-P.</i>

Friday, 6th June 2014

Session 7: Ultrasonic Processing	
9.00 – 9.45	(Plenary) - Relationship and Synergy between Ultrasound and other Enabling Technologies in Chemical Processes <i>Cravotto G.</i>
9.45 – 10.05	Application of Ultrasound and Microwave to the Production of Biodiesel Fuel <i>Maeda Y., Luu P.L., Truong H.T., Tkenaka N.</i>
10.05 – 10.25	Ultrasonically Assisted Extraction of Natural Products. Some Guidelines for Good Practice <i>Vinatoru M.</i>
10.25 – 10.45	Effect of Temperature, Catalyst and Ultrasound on the Formation of Ferulic Acid from Γ -Oryzanol Hydrolysis by Co-Solvent Method <i>Truong H.T., Luu P.D., Takenaka N., Imamura K., Maeda Y.</i>
10.45 – 11.15	Coffee Break
11.15 – 11.45	(Keynote) - Making the Hospital a Safer Place by the Sonochemical Coating of the Textiles and Other Medical Devices with Antibacterial, Antibiofilm, Antiviral and Antifungal Nanoparticles <i>Gedanken A.</i>
11.45 – 12.05	Synthesis, Characterization and Dissolution of Thorium Oxide <i>Simonnet M., Barré N., Drot R., Le Naour C., Sladkov V., Delpech S.</i>
12.05 – 12.25	Effects of Ultrasound and Temperature on Copper Electro Reduction in Deep Eutectic Solvents (DES) <i>Mandroyan A., Mourad-Mahmoud M., Doche M.-L., Hihn J.-Y.</i>
12.25 – 12.45	Oxidation of Aluminum at Liquid Alloys / Solid Interfaces Promoted by Ultrasound <i>Cui W., Yan J., Dai Y., Li D., Liu Y., Zhao W.</i>
12.45 – 13.00	Concluding Remarks
13.00 – 14.15	Lunch Break
14.15 – 18.00	Visit to the Popes' Palace & Departure