

16th

EMSF

2017

25-28 April Lisbon

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Fundação Calouste Gulbenkian  
Lisbon - Portugal



Time	25 <sup>th</sup> April	26 <sup>th</sup> April		
09:00-10:00		S. Raeissi		
10:00-10:30		King	Knez	Kazarian
10:30-11:15		FHWB01	K02	M01
		FHWB02	K03	M02
		FHWB03		M03
11:15-12:00		Coffee break & Poster session 1		
12:00-13:00		FHWB04	RC01	M04
		FHWB05	RC02	M05
		FHWB06	RC03	M06
		FHWB07	RC04	M07
13:00-14:00		Lunch		
14:00-14:30		Aymonier	Franciò	Salman
14:30-15:15		M08	K04	FHWB08
		M09	K05	FHWB09
		M10	K06	FHWB10
15:15-16:00		Coffee break & Poster session 1		
16:00-17:15		K07	M11	FHWB11
		K08	M12	FHWB12
		K09	M13	FHWB13
		K10	M14	FHWB14
		K11	M15	FHWB15
17:15-17:30		17:30	Visit Tour	
18:00	Cocktail Reception			

Time	27 <sup>th</sup> April			28 <sup>th</sup> April		
09:00-10:00	M. J. Cocero			Feral Temelli		
10:00-10:30	Fages	Erkey	Montañés	Perrut	Smith	Goto
10:30-11:15	RC05	M16	FHWB16	FHWB23	RC10	K16
	RC06	M17	FHWB17	FHWB24	RC11	K17
	RC07	M18	FHWB18	FHWB25	RC12	K18
11:15-12:00	Coffee break & Poster session 2			Coffee break		
12:00-13:00	Sanz-Moral	K12	FHWB19	M19	RC13	FHWB26
		K13	FHWB29	M20	RC14	FHWB27
	RC08	K14	FHWB21	M22	RC15	FHWB28
	RC09	K15	FHWB22		RC16	FHWB30
13:00-14:00	Lunch					
	From Science to Society					
14:00-15:15	Owen Catchpole					
	Elvira Casas					
	Steve Bowra					
	Jerry King					
	Round Table					
15:15-16:00	Coffee break & Poster session 2					
16:00-17:30	Business Plan Competition					
	Luis Sanz-Moral					
	Sergey Soshin					
	Alexey Guskov					
	Sébastien Clercq					
	Raman Subrahmanyam					
17:30-18:00	Paolo Trucillo					
	ISASF anual meeting					
19:30	Gala Dinner					

# Detailed program

Tuesday, April 25, 2017		
18:00	Registration open – Cocktail reception	
Wednesday, April 26, 2017		
09:00 – 10:00 (Plenary Lecture)	Industrial-minded and Unconcerned about Phase Equilibria and Thermodynamic Properties? They May Be More Beautiful, Fascinating, and Necessary Than You Think S. Raeissi	
Parallel Session 1: Food, Health and Well-Being – Auditório 2		
10:00 – 10:30 (Keynote Lecture)	Extraction and Processing of Medicinal Cannabinoids from Hemp <u>J.W. King</u> , C. Smith, G. Jackson	
10:30 – 10:45	Valorisation of Grape Pomace Using Hot Compressed Water <u>B. Pedras</u> , S. Barreiros, I.Sá-Nogueira, P. Simões, A. Paiva	FHWP01
10:45 – 11:00	Development of Antimicrobial Films Based on Cassava Starch and Chitosan Using Subcritical Water Technology <u>Y. Zhao</u> , M.D.A. Saldaña	FHWP02
11:00 – 11:15	Precipitation of Mango Leaves Antioxidants by Supercritical Antisolvent Process <u>M. C. Guamán-Balcázar</u> , A. Montes, C. Pereyra, E. Martínez de la Ossa	FHWP03
Parallel Session 2: Knowledge – Sala 1		
10:00 – 10:30 (Keynote Lecture)	Thermodynamic and Transport Data for the Systems of Polymers and Subcritical and Supercritical Gases <u>Ž. Knez</u> , M. Knez Hrnčič, G. Kravanja	
10:30 – 10:45	Viscosity of Squalene under Carbon Dioxide Pressure - Comparison of Acoustic Levitation with Conventional Methods <u>J. Kremer</u> , V. Bürk, S. Pollak, A. Kilzer	K02
10:45 – 11:00	Density Measurements of Gas-Expanded Liquids <u>L.P. Cunico</u> , C. Turner	K03
11:00 – 11:15		
Parallel Session 3: Materials – Auditório 3		
10:00 – 10:30 (Keynote Lecture)	Recent Applications of In situ ATR-FTIR Spectroscopy to Polymers and Crude Oil <u>S.G. Kazarian</u> , A.A. Gabrienko, A.M. Chibiryaev, O.N. Martyanov	
10:30 – 10:45	Using Supercritical Carbon Dioxide for Activation of Pd/Al <sub>2</sub> O <sub>3</sub> Spent Catalyst <u>E. Esmailzadeh</u> , A. Bolhasani, V. Khorshidi, D. Ranjbar	M01
10:45 – 11:00	Synthesis of Carbon Matrix for C/C Composites Based on Methane in Its Supercritical State <u>L. Maillé</u> , Y. Le Petitcorps, J. Roger, C. Aymonier, A. Guette	M02
11:00 – 11:15	Synthesis in Supercritical CO <sub>2</sub> of 1D Metal-Organic Frameworks Crystallized in Nanosheets with a Desert-Rose Morphology <u>N. Portolés-Gil</u> , R. Parra, A.M López-Periago, C. Domingo, J.A Ayllón	M03
11:15 – 12:00	<b>Coffee Break &amp; Poster Session 1</b>	
Parallel Session 1: Food, Health and Well-Being – Auditório 2		
12:00 – 12:15	Active Membranes Production by Supercritical Phase Inversion for Wound Dressing Applications <u>L. Baldino</u> , S. Cardea, E. Reverchon	FHWP04
12:15 – 12:30	Recovering Value from Organic Waste Materials. Supercritical Fluid Extraction of Grape Seed Oil R. Filipe, <u>J. Coelho</u> , A. Cardoso, R. Stateva	FHWP05
12:30 – 12:45	Extraction of Phenolic Compounds from Feijoa ( <i>Acca sellowiana</i> (O. Berg.) Burret) Peel: a Comparison between Conventional and High-pressure Methods <u>P.H. Santos</u> , P.M.C.L. Reis, L.G.G. Rodrigues, H. Hense	FHWP06
12:45 – 13:00	Extraction of Terpenoids From Sage Herbal Dust – Conventional Versus Novel Extraction Techniques <u>B. Pavlič</u> , O. Bera, S. Vidović, L. Ilić, Z. Zeković	FHWP07

Parallel Session 2: Renewable Carbon - Sala 1		
12:00 - 12:15	Use of Supercritical Carbon Dioxide For Recovery of Oil From Date Pits And Preparation of Low Cost Adsorbent <u>H. Sweidan</u> , N. Al Darmaki, A.H. Al-Marzouqi, Y. Greish	RC01
12:15 - 12:30	Supercritical Water Oxidation of Fecal Sludge: A Neighbourhood Scale Solution <u>K.S. Duba</u> , F.M. Yedro, S. Elsayed, A. Busick, W. Jacoby, W. Beckwith, K. Jooss, M.A. Deshusses	RC02
12:30 - 12:45	Mixtures of Ionic liquids with Ethanol as Potential Processing Fluids for Lignocellulosic Materials <u>E. Kiran</u> , M. Williams, J. Dickmann, S. Holahan, J. Sarver	RC03
12:45 - 13:00	Extraction of Harmful Substances From Paper For Recycling Using Supercritical CO <sub>2</sub> (scCO <sub>2</sub> ) <u>S. Runte</u> , A. Kersten, S. Schabel	RC04
Parallel Session 3: Materials - Auditório 3		
12:00 - 12:15	Supercritical Route for Nano Materials - Catalyst, Hybrid Materials and Nano Ink <u>T. Adschiri</u>	M04
12:15 - 12:30	Supercritical CO <sub>2</sub> Extraction of Uranium From Ores: Influence of Process Parameters on Selectivity <u>A. Leybros</u> , L. Hung, A. Hertz, D. Hartmann, A. Grandjeana, O. Boutin	M05
12:30 - 12:45	Sc-CO <sub>2</sub> Based Preparation of Supported Mono- and Bimetallic Nanoparticles: Application in Catalysis M. Crone, <u>M. Türk</u>	M06
12:45 - 13:00	New Approach to Residue Analysis in Archaeological Ceramics Using Supercritical Fluids <u>T. Deviese</u> , V. Hare, A. Van Ham-Meert, J. Lundy	M07
13:00 - 14:00	<b>Lunch</b>	
Parallel Session 1: Materials - Auditório 3		
14:00 - 14:30 (Keynote Lecture)	Supercritical Fluids and Materials: from Design to End of Life C. Aymonier, G. Philippot, S. Marre, A. Erriguible, G. Aubert, R. Couto, S. Padmajan, M. Claverie, A. Dumas, N. Maat, C. Slostowski	
14:30 - 14:45	Hydrothermal Synthesis of Metal Oxide Nanoparticles S. Schlehn, <u>M. Türk</u>	M08
14:45 - 15:00	Preparation of Crystalline Organometallic Complexes from Supercritical CO <sub>2</sub> Reactive Precipitation <u>A. López-Periago</u> , N. Portolés, P. López, J.A. Ayllón, J. Fraile, C. Domingo	M09
15:00 - 15:15	Preparation of Supported Pt Bimetallic Nanoparticles Using Supercritical CO <sub>2</sub> and their Application as Catalysts E. Sánchez-Miguel, M.J. Tenorio, C. Pando, <u>A. Cabañas</u>	M10
Parallel Session 2: Knowledge - Sala 1		
14:00 - 14:30 (Keynote Lecture)	Continuous-Flow Catalysis using Carbon Dioxide as Solvent, Trigger, or Reagent <u>G. Franciò</u>	
14:30 - 14:45	A Viscosity Study on How the Presence of Additives Can Affect the Interaction of CO <sub>2</sub> with Poly(lactic acid) <u>K.L. Pepper</u> , T.O. Masson, S.M. Howdle	K04
14:45 - 15:00	Carbon Dioxide Hydrogenation by Means of Plasmonic Resonance Activation <u>S. Muñoz</u> , A. Navarrete, L.M. Sanz-Moral, A. Martin, M.J. Cocero	K05
15:00 - 15:15	Optical Investigations On Macro- And Micro-Scale Mixing In The High-Pressure Supercritical AntiSolvent (SAS) Process <u>D. Bassing</u> , A. Siegfried Braeuer	K06
Parallel Session 3: Food, Health and Well-Being - Auditório 2		
14:00 - 14:30 (Keynote Lecture)	Supercritical CO <sub>2</sub> Sterilization: Requirements for Process Qualification <u>O.A. Salman</u>	
14:30 - 14:45	Recovery of L-Theanine and Catechins from Green Tea Waste Using Subcritical Water Extraction <u>C. Uğurlu</u> , Ö. Güçlü Üstündağ	FHWP08
14:45 - 15:00	Extracts from Residues of <i>Arbutus unedo</i> Distillation Process Obtained by SFE: Antiproliferative and Citotoxicity Evaluation <u>A.M.R.C. Alexandre</u> , T. Serra, C.M.M. Duarte, M.R. Bronze	FHWP09
15:00 - 15:15	Optimization of a CO <sub>2</sub> Process to Pasteurize and Preserve the Nutritional Components of Dietary Food Supplements <u>C. Fleury</u> , R. Savoie, H.-S. Abdessattar, C. Harscoat-Schiavo, P. Subra-Paternault	FHWP10
15:15 - 16:00	<b>Coffee Break &amp; Poster Session 1</b>	

Parallel Session 1: Knowledge – Sala 1		
16:00 – 16:15	Kinetics of Supercritical Drying of Protein Gel Particles in a Packed Bed: Experimental Investigation and Modeling <u>L. Selmer</u> , A.-S. Behnecke, J. von der Heide, I. Smirnova	K07
16:15 – 16:30	Flow Ractor Studies of Diffusion and Chemical Reactions in Supercritical Water <u>L.M. Svishchev</u> , K. Choudhry, A.Y. Plugatyr	K08
16:30 – 16:45	Enantiomeric Enrichment by Antisolvent Fractionation of the Diastereoisomeric Salt of 4-Chloromandelic Acid <u>M. Kőrösi</u> , J. Madarász, T. Sohajda, E. Székely	K09
16:45 – 17:00	Complementary Experimental/Numerical Approach for the Study of Salt Precipitation in Supercritical Water: Application for SCWO Processes <u>T. Voisin</u> , A. Erriguible, G. Philippot, D. Ballenghein, D. Mateos, A. Kunegel, F. Cansell, B. Iversen, C. Aymonier	K10
17:00 – 17:15	Investigation of Crystallization Mechanisms in Supercritical CO <sub>2</sub> Using A Novel Modelling Approach Application to Active Pharmaceutical Ingredients <u>S. Clercq</u> , A. Mouahid, G. Pepe, F. Ziarelli, E. Badens	K11
Parallel Session 2: Materials – Auditório 3		
16:00 – 16:15	Lupin Hull Cellulose Nanofiber Aerogel Preparation by Supercritical CO <sub>2</sub> <u>M.D.A. Saldaña</u> , D. Ciftci, A. Ubeyitogullari, R.R. Huerta, O.N. Ciftci, R.A. Flores	M11
16:15 – 16:30	New Organic Fluorescent Nanovesicles Prepared by a Compressed CO <sub>2</sub> -based Process A. Ardizzone, S. Kurhuzenkau, S. Illa, J. Faraudo, S. Pati, M. Bondar, A. Painelli, C. Sissa, J. Veciana, <u>N. Ventosa</u>	M12
16:30 – 16:45	Fabrication of PLA Scaffolds with Tunable Structural and Mechanical Properties: Development and Scale-up of an Eco-friendly TIPS Process Assisted by Supercritical CO <sub>2</sub> S. Gay, G. Lefebvre, M. Bonnin, B. Nottelet, F. Boury, A. Gibaud, <u>B. Calvignac</u>	M13
16:45 – 17:00	Study on the Atomization Phenomena in Spray Coating of Organic Paint Mixed with High-pressure Carbon Dioxide as a Diluting Solvent <u>S. Kawasaki</u> , Y. Sakurai, T. Fujii, A. Suzuki	M14
17:00 – 17:15	Production of Biopolymer Based Aerogels Using CO <sub>2</sub> Induced Gelation <u>L. Preibisch</u> , P. Gurikov, S. Whitehouse, I. Smirnova	M15
Parallel Session 3: Food, Health and Well-Being - Auditório 2		
16:00 – 16:15	Impregnation of PGX Processed $\beta$ -glucan Powder with Co-enzyme Q10 <u>R. Couto</u> , B. Seifried, B. Yépez, P. Moquin, F. Temelli	FHWB11
16:15 – 16:30	Use of Supercritical CO <sub>2</sub> in Pharmaceuticals Applications <u>H. Lochar</u> , F. Marciacq, B. Freiss	FHWB12
16:30 – 16:45	Sterilization of Sensitive Military Material by High Pressure Carbon Dioxide J. Casas, <u>L. Calvo</u>	FHWB13
16:45 – 17:00	Enzymatic Inactivation of Apple Juice Using HPCD (High Pressure Carbon Dioxide) Technology and Its Effect on the Quality Parameters of the Juice <u>A.E. Illera</u> , M.T. Sanz, S. Beltrán, R. Melgosa	FHWB14
17:00 – 17:15	Dry Acellular Biomatrices Processed With Supercritical Carbon Dioxide A. Zambon, <u>E. Michelino</u> , M. Vetralla, L. Urbani, G.G. Giobbe, P. De Coppi, N. Elvassore, S. Spilimbergo	FHWB15
17:30	<b>City Tour</b>	
Thursday, April 27, 2017		
09:00 – 10:00 (Plenary Lecture)	Biomass fractionation in subcritical/supercritical water M.J. Cocero	
Parallel Session 1: Renewable Carbon – Sala 1		
10:00 – 10:30 (Keynote Lecture)	Foaming PLA with Thermoplastic Starch by Extrusion Assisted by Supercritical CO <sub>2</sub> <u>M. Chauvet</u> , M. Sauceau, F. Baillon, J. Fages	
10:30 – 10:45	Experimental and Theoretical Investigation of Supercritical CO <sub>2</sub> Extraction of Lipids from Microalgae <i>Chlorella Vulgaris</i> for Biodiesel Production <u>S. Simsek</u> , E. Sarayloo, İ.H. Kavaklı, C. Erkey	RC05
10:45 – 11:00	Efficiency of CeO <sub>2</sub> Nanocatalyst on Hydrothermal Conversion Applied to Composite Waste in Sub and Supercritical Water <u>C. Chaabani</u> , G. Seong, S. Takami, E. Weiss-Hortala, Y. Soudais, T. Adschiri	RC06
11:00 – 11:15	Conversion of Cellulose to High Value Platform Chemicals by Applying Direct Current in Hot-compressed Water <u>A. Yuksel</u> , O. Akin	RC07

Parallel Session 2: Materials - Auditório 3		
10:00 – 10:30 (Keynote Lecture)	Supported Nanoalloys of Platinum by Supercritical Deposition <u>C. Erkey</u>	
10:30 – 10:45	Polycaprolactone Production Combining Two Biocatalytic Reactions Using Supercritical Carbon Dioxide as Solvent and Reaction Media D. Huserman, L. Parra, P. Robles, G.A. <u>Núñez</u>	M16
10:45 – 11:00	Elaboration of Ceramic Matrix Composites (CMCs) under High Temperature and High Pressure Conditions <u>L. Henry</u> , J. Roger, Y. Le Petitcorps, C. Aymonier, L. Maillé	M17
11:00 – 11:15	Effect of Emulsifiers in Emulsion Spraying via PGSS <u>L. Davico</u> , R. Scholz, S. Kareth, E. Weidner	M18
Parallel Session 3: Food, Health and Well-Being - Auditório 2		
10:00 – 10:30 (Keynote Lecture)	Solubility of Plant Oils and Carotenoids in Supercritical CO <sub>2</sub> at Pressures to 1390 bar <u>F. Montañés</u> , S. Tallon, I. Lim	
10:30 – 10:45	Development of Innovative Porous Ocular Implants By A Green Supercritical Foaming/Mixing (SFM) Technology S. Bizarro, <u>P.A.N. Dias</u> , R. Boia, A.R. Santiago, H.C. de Sousa, M.E. Braga	FHWP16
10:45 – 11:00	Computational Approach on Design and Preparation of Polymeric Artificial Receptors in Supercritical CO <sub>2</sub> <u>R. Viveiros</u> , K. Karim, S. A. Piletsky, W. Heggie, T. Casimiro	FHWP17
11:00 – 11:15	Compressed CO <sub>2</sub> Foaming Strategies to Prepare Synthetic Scaffolds for Regenerative Medicine <u>C.A. Garcia-González</u> , M.E.M. Braga, A.M.A. Dias, A. Concheiro, C. Alvarez-Lorenzo, H.C. de Sousa	FHWP18
11:15 – 12:00	<b>Coffee Break &amp; Poster Session 2</b>	
Parallel Session 1: Renewable Carbon - Sala 1		
12:00 – 12:30 (Keynote Lecture)	Aerogels & Microwaves, an Alternative for H <sub>2</sub> Storage <u>L.M. SanzMoral</u> , A. Navarrete, G. Sturm, G. Link, G. Stefanidis, M. Rueda, A. Martín	
12:30 – 12:45	Subcritical Water Extraction of Hemicellulosic Sugars and Phenolics from Barley Straw <u>R.R. Huerta</u> , M.D.A. Saldaña	RC08
12:45 – 13:00	Hydrothermal CO <sub>2</sub> Conversion Using Zinc As Reductant <u>D. Roman-Gonzalez</u> , F. Burgoa, E. Perez-Velilla, A.Nieto, A.Martin, M.D. Bermejo	RC09
Parallel Session 2: Knowledge - Auditório 3		
12:00 – 12:15	Phase Behaviour of the System CO <sub>2</sub> + methanol + glycerol <u>G.V.S.M. Carrera</u> , Z.P. Visak, R. Bogel-Lukasik, M. Nunes da Ponte	K12
12:15 – 12:30	Phase Behavior for the Poly(2-phenylethyl methacrylate) and 2-Phenylethyl Methacrylate in Supercritical Fluid Solvents: Experiment and Correlation <u>B.S. Lee</u> , H.S. Byun	K13
12:30 – 12:45	On The Development of Hydrogen Bonds In Single-Phase But Nanostructured Ternary Mixtures of Water/org.solvent/CO <sub>2</sub> <u>S. Stehle</u> , A.S. Braeuer, N. Grimaldi, N. Ventosa, A. Triolo	K14
12:45 – 13:00	Coupling Reactions between CO <sub>2</sub> and Epoxides Using Aerogels as Supporting Metal-Ionic Liquid Phase <u>A.I.B. Paninho</u> , A.N. Mustapab, K.T. Mahmudov, A.J.L. Pombeiro, M.J. Cocero, M. Nunes da Ponte, Á. Martín, M.D. Bermejo, A.V.M. Nunes	K15
Parallel Session 3: Food, Health and Well-Being - Auditório 2		
12:00 – 12:15	Recovery of Bioactive Ingredients from Cruciferous Vegetables Surpluses Using Supercritical Fluid Technology <u>L. Rodrigues</u> , A.L. Simplicio, M.R. Bronze, C.M.M. Duarte, A.A. Matias	FHWP19
12:15 – 12:30	Generating Lecithin Powders by CO <sub>2</sub> -Extraction <u>C. Kersch</u> , M. Tippelt, J. Schulmeyr	FHWP29
12:30 – 12:45	Gas Assisted Mechanical Expression (GAME) as a Promising Green Technology for Oil Extraction <u>H. Mhemdi</u> , M. Koubaa, F.J. Barba, E. Vorobieva	FHWP21
12:45 – 13:00	Continuous Production of Vitamin E in Polycaprolactone Nanocapsules by Supercritical Fluid Extraction of Emulsions and Process Simulation with Aspen Plus <u>C. Prieto López</u> , C.M.M. Duarte, L. Calvo	FHWP22
13:00 – 14:00	<b>Lunch</b>	

From Science to Society Session - Auditório 2		
14:00 - 14:15	Supercritical Extraction – Succeeding at a Small Scale <u>O. Crachpole</u>	
14:15 - 14:30	To be announced <u>E. Casas</u>	
14:30 - 14:45	Can Critical Fluids Underpin 'True Sustainable Integrated Biorefining with Emphasis on Zero Waste?' <u>S. Bowra</u>	
14:45 - 15:00	Capturing Markets with Critical Fluid Technology: A Case Study in Its Application and Development in the Cannabis Industry in North America <u>L. King</u>	
15:00 - 15:15	Round Table <u>O. Crachpole, E. Casas, S. Bowra, J. King</u>	
15:15 - 16:00	<b>Coffee Break &amp; Poster Session 2</b>	
Business Plan Competition - Auditório 2		
16:00 - 16:15	Light Energy <u>L.M. Sanz Moral</u>	
16:15 - 16:30	Mobile Supercritical Fluid Extraction Complex <u>S. Soshin</u>	
16:30 - 16:45	GAS Process Application for Production of High Performance Additive Manufacturing Materials. <u>A. Guskov</u>	
16:45 - 17:00	Creation of a Start-Up That Uses GenMolTM <u>S. Clercq</u>	
17:00 - 17:15	AEROGEX <u>R. Subrahmanyam</u>	
17:15 - 17:30	LipoRep (Liposome Repair) <u>P. Trucillo</u>	
17:30 - 18:00	<b>ISASF annual meeting – Sala 1</b>	
19:30	<b>Gala Dinner</b>	
Friday, April 28, 2017		
09:00 - 10:00 (Plenary Lecture)	Novel Food Ingredient Development Using Supercritical Particle Formation Techniques <u>F. Temelli</u>	
Parallel Session 1: Food, Health and Well-Being - Auditório 2		
10:00 - 10:30 (Keynote Lecture)	Natural Supercritical Extracts Reprocessing <u>M. Perrut, V. Perrut</u>	
10:30 - 10:45	Extraction and Identification of the Essential Oil Profile of the Laurus Nobilis L. Leaf P.M.C.L. Reis, <u>P.H. Santos</u> , H. Hense	FHWB23
10:45 - 11:00	Towards the Development of Controlled Protein Drug Delivery System by a Supercritical Fluid Process M. Yu, H. Every, A. S. Sediq, M. R. Nejadnik, W. Jiskoot, G. J. Witkamp	FHWB24
11:00 - 11:15	Modeling Sclareol Purification by Supercritical Fractionation Process <u>C. Dufour</u> , C. Crampon, C. Delbecque, P-P. Garry, E. Badens	FHWB25
Parallel Session 2: Renewable Carbon – Sala 1		
10:00 - 10:30 (Keynote Lecture)	Strategies for Using Mixed-solvents in Supercritical Fluid Science and Technology A. Duereh, Y. Hiraga, <u>R.L. Smith, Jr.</u>	
10:30 - 10:45	Electrochemical Reduction of Supercritical CO <sub>2</sub> on Copper Catalyst <u>O. Melchaeva</u> , M. Prokein, A. Battistel, N. Mölders, S. Kaluza, M. Renner, H. Girault, E. Weidner, M. Petermann	RC10
10:45 - 11:00	Aerogels as Potential Adsorbents for Carbon Dioxide Capture <u>M. Anas</u> , C. Erkey	RC11
11:00 - 11:15	Supercritical Water Desalination Pilot Plant <u>S. Wyk</u> , S.O. Odu, A.G.J. van der Ham, S.R.A. Kersten	RC12



Parallel Session 3: Knowledge - Auditório 3		
10:00 – 10:30 (Keynote Lecture)	Swirl Mixing Micro Device for Supercritical Anti-solvent Micronization <u>M. Goto</u> , C. Uemori, T. Kodama, Wahyudiono, H. Kanda, S. Kawasaki	
10:30 – 10:45	Investigation of The Influence of Thermodynamic Hydrate Inhibitors On The Properties of The Formed Hydrate Phase By Raman Spectroscopy <u>C. Holzammer</u> , J. Schicks, S. Will, A. Bräuer	K16
10:45 – 11:00	High-pressure Phase Equilibria of the CO <sub>2</sub> + 1-Decanol + n-Tetradecane System M. Ferreira, <u>C. E. Schwarz</u>	K17
11:00 – 11:15	Determining VLE of Fuel/Air Mixtures At High Temperature And High Pressure <u>T.C. Klima</u> , K. Gurrath, A.S. Braeuer	K18
11:15 – 12:00	<b>Coffee Break</b>	
Parallel Session 1: Materials - Auditório 3		
12:00 – 12:15	Dynamic Extraction of Bitumen Using Supercritical Carbon Dioxide <u>S.E. Guigard</u> , E. Underwood, W. Stiver, J. McMillan, S. Bhattacharya	M19
12:15 – 12:30	A Green and Structure-Controlled Approach to the Generation of Silicone Rubber Foam Using scCO <sub>2</sub> <u>X. Liao</u> , J. Bai, E. Huang, Q. Yang, G. Li	M20
12:30 – 12:45	Thermosetting Polyurethane Foams by Supercritical CO <sub>2</sub> as Physical Blowing Agent <u>M.R. Di Caprio</u> , E. Di Maio, S. Cavalca, V. Parenti, P. Musto, S. Iannace	M22
12:45 – 13:00		
Parallel Session 2: Renewable Carbon – Sala 1		
12:00 – 12:15	Confinement Hydrides In Silica Aerogels To Enhance Properties of Solid Hydrogen Storage Materials Using Supercritical Technologies <u>M.Rueda</u> , L.M.Sanz-Moral, A.Martin, C.Milanese	RC13
12:15 – 12:30	Novel and Sustainable Method to Develop Greener Polymers <u>M. Gameiro</u> , D. Regentova, S. Bassett, Y. Chebude, S.M Howdle	RC14
12:30 – 12:45	Geomimicking Using Chemistry In Supercritical Water <u>M. Claverie</u> , A. Dumas, C. Slostowski, G. Aubert, C. Careme, C. Le Roux, P. Micoud, F. Martin, C. Aymonier	RC15
12:45 – 13:00	Enzymatic Synthesis of Geranyl Acetate in Packed Bed Reactor in Supercritical Carbon Dioxide: Process Intensification and Optimization M.C. Bourkaib, H. Randriamalala, L. Detori, H. Simonaire, O. Herbinet, I. Chevalot, Y. <u>Guiavarc'h</u>	RC16
Parallel Session 3: Food, Health and Well-Being - Auditório 2		
12:00 – 12:15	Enhanced Bioavailability of Curcumin with Biodegradable Polymer by Supercritical Anti-solvent Micronization <u>C. Kimther</u> , Wahyudiono, H. Kanda, S. Kawasaki, M. Goto	FHWB26
12:15 – 12:30	Obtaining of Antioxidant Food Packaging Plastics by Supercritical Impregnation of Polyphenols <u>C. Cejudo Bastante</u> , L. Casas Cardoso, T. Fernández Ponce, C. Mantell Serrano, E. Martinez de la Ossa	FHWB27
12:30 – 12:45	Supercritical CO <sub>2</sub> Enzyme-assisted Release of Isorhamnetin Conjugates from <i>Opuntia ficus-indica</i> (L.) Mill M. Antunes-Ricardo, T. García-Cayuela, J.A. Mendiola, J.A. Gutiérrez-Urbe, M. P. Canoac, D. Guajardo-Flores	FHWB28
12:45 – 13:00	Novel Delivery System Combining Therapeutic Deep Eutectic Solvents and Supercritical Technology J.M. Silva, R.L. Reis, A. Paiva, A.R.C. Duarte	FHWB30
13:00 – 13:10	<b>Closing Session</b>	

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# Notes



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