

ISSF2018 PRESENTATIONS

PLENARY SESSIONS

- P1 HIGHLIGHTS FROM 5 DECADES IN HIGH PRESSURE PROCESS TECHNOLOGY** (*lecture in honour of Professor Gerd Brunner*)
Eckhard Weidner
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- K1 JOURNEY TO THE NEW WORLD: BEYOND CRITICAL POINT.**
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CASE STUDIES

- CS1 RECENT DEVELOPMENTS IN STERILIZATION, DISINFECTION, AND MEDICAL CLEANING USING COMPRESSED CARBON DIOXIDE.**
Michael A. Matthews,
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- & SUPERCRITICAL CO₂ STERILIZATION OF APIS: IS SC CO₂ A PENETRATING STERILANT? -- GUIDELINES FOR SCALE-UP**
Omar A. Salman
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- CS2 INDUSTRIALIZATION OF A SUPERCRITICAL CO₂ PROCESS FOR OXIDATION OF CELLULOSE**
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- CS3 CO₂-INTENSIFIED TANNING - FROM FIRST IDEAS TO INDUSTRIAL APPLICATION**
Eckhard Weidner^{1,2}, Philipp Widmer³, Manfred Renner², Helmut Geihlsler²
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- CS4 PGX TECHNOLOGY: A CASE OF UNIVERSITY – INDUSTRY PARTNERSHIP FOR INNOVATION**
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- CS5 FROM CORK OAK TREE TO SUSTAINABLE CORK STOPPERS: THE DIAMANT PROCESS®**
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PARALLEL SESSIONS

ENERGY and FUELS (E)

Keynote

KE1 DEVELOPMENT OF A COMMERCIAL, FULLY-CONTINUOUS, SUPERCRITICAL FLUID EXTRACTION PROCESS FOR OIL RECOVERY FROM DRILLING WASTE

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Oral

OE01 HYDROTHERMAL GASIFICATION OF HUMIC ACID AS A MODEL COMPOUND SEWAGE SLUDGE FOR HYDROGEN RICH-SYNGAS PRODUCTION

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OE02 REAL SLUDGE FROM A WASTEWATER TREATMENT PLANT AS ALTERNATIVE TO MICROALGAE AS FEEDSTOCK OF HYDROTHERMAL LIQUEFACTION OF BIOMASS TO BIOCRUDE.

Claudia Prestigiacomo¹, Onofrio Scialdone¹, Alessandro Galia^{1,*}, Paula Costa², Filomena Pinto²

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OE03 BIOFUEL AND BIOCHEMICAL SYNTHESIS IN SUPERCRITICAL FLUIDS

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MATERIALS (A-B-D-I-M)

POROUS MATERIALS: POLYMERS, FOAMS, AEROGELS (A)

Keynotes

KA1 CAN X-RAYS BE USED TO MONITOR POLYMERISATIONS IN SUPERCRITICAL CO₂? A STUDY IN SAXS

Thomas M. Bennett,^{a*} Mohammad Alauhdin,^a Daniel Hermida-Merino,^b Guping He,^a Simon P. Bassett,^a Steven M. Howdle^{*a}

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KA2 ORGANIC AEROGELS AS MONOLITHS AND PARTICLES: ON THE WAY FROM LABORATORY TO PRODUCTION SCALE

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KA3 FEATURES OF SUPERCRITICAL CO₂ IN THE DELICATE WORLD OF THE NANOPORES

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Oral

OA01 MODELLING THE CONTINUOUS FOAMING IN THE DIE DURING SUPERCRITICAL CO₂ ASSISTED EXTRUSION

Margot Chauvet, Fabien Baillon, Martial Sauceau*, Jacques Fages

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OA02 INVESTIGATION OF CO₂-BLOWN POLYLACTIDE FOAMS BY EXPERIMENTAL CHARACTERIZATION AND THEORETICAL MODELING

Judith Winck * and Sulamith Frerich

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OA03 SYNTHESIS AND CHARACTERIZATION OF STAR POLYMERS IN SUPERCRITICAL CO₂: INFLUENCE OF THE CATALYTIC SYSTEM ON POLYMER ARCHITECTURE

Payal Baheti^{1,2}, Cécile Bouilhac^{1,*}, Patrick Lacroix-Desmazes¹, Steven M. Howdle²

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OA04 SOLVATION EFFECT OF CO₂ ON ACCELERATING THE CURING REACTION PROCESS OF EPOXY RESIN

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- OA05 ASSESSMENT OF THE GLASS TRANSITION AND THE MELTING/CRYSTALLIZATION TEMPERATURES OF POLYMERS EXPOSED TO CARBON DIOXIDE. A NEW EXPERIMENTAL TECHNIQUE**
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- OA06 LAYERED AND GRADED FOAMS WITH THE USE OF SUPERCRITICAL CO₂**
Ernesto Di Maio
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- OA07 STRUCTURAL TRANSFORMATION AND FUNCTIONALIZATION OF MATERIALS IN SUPERCRITICAL FLUIDS**
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- OA08 Cu-ALGINATE AND Ca-ALGINATE AEROGELS PRODUCTION BY SUPERCRITICAL GEL DRYING FOR BIOMEDICAL APPLICATIONS**
Lucia Baldino, Stefano Cardea*, **Mariarosa Scognamiglio, Ernesto Reverchon**
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- OA09 CREATION OF MICROSTRUCTURED POLYMERS WITH DEFINED MICRO AND NANO PORES FOR DIFFERENT APPLICATIONS USING HOT EMBOSsing AND CO₂**
Gabriele Wiegand*, **Hendrik Hölscher^b**, **Siegbert Johnsen^a**, **Julia Syurik^b**,
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- OA10 COMPUTER AIDED DESIGN OF AEROGELS AND MATERIALS BASED ON IT**
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- OA11 NOVEL MOF-ALGINATE AEROGEL COMPOSITES FOR DRUG DELIVERY**
Zeynep İnönü^a, **Seda Keskin^a**, **Can Erkey^{a*}**
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- OA12 SCALE-UP OF ALGINATE AEROGEL MICROPARTICLES PRODUCTION: DEVELOPMENT OF A CONTINUOUS EMULSION-GELATION METHOD**
Victor Baudron*, **Pavel Gurikov** and **Irina Smirnova**
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- OA13 INVESTIGATION OF KINETICS OF SUPERCRITICAL DRYING OF CALCIUM ALGINATE ALCOGEL PARTICLES**
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- OA14 IMPREGNATION OF AÇAÍ RESIDUE EXTRACTS IN SILICA-AEROGEL**
Rafaella T. Buratto*^a, **Mirian Rueda^a**, **Ángel Martín^a**, **María José Cocero^a**
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BIOMATERIALS & MEDICAL DEVICES (B)

Keynote

KB1 SUPERCRITICAL FLUID TECHNOLOGY APPLIED TO VISION SCIENCE.

Elisabeth Badens^{a,c,*}, Yasmine Masmoudi^{a,c}, Kanjana Ongkasin^{a,c}, Abir Bouledjoudja^a, Liansong Wang^{b,c}, Wei He^{b,c}

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Oral

OB01 POLYSACCHARIDE AEROGEL COATINGS IN HIP ARTHROPLASTY

Zoran Novak^{a,*}, Gabrijela Horvat^a, Željko Knez^a, Lidija Gradišnik^b, Uroš Maver^b, Klodian Xhanari^c, Matjaž Finšgar^a

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OB02 COMMERCIALIZING A CO₂ TECHNOLOGY PLATFORM FOR REMOVING ASTHMA TRIGGERS FROM THE HOME

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OB03 A NOVEL SUPERCRITICAL CO₂-BASED DECELLULARIZATION METHOD FOR MAINTAINING SCAFFOLD HYDRATION AND MECHANICAL PROPERTIES

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OB04 DESIGN OF A PORTABLE HIGH-PRESSURE REACTOR FOR THE IN SITU FOAMING OF POLYMER IMPLANTS USING CARBON DIOXIDE AS A POROGEN AGENT

Ana Rita C. Duarte^{1,2*}, Rui M. Duarte^{2,3,4,5}, Jorge Correia-Pinto^{2,3,4,6}, Rui L. Reis^{1,2}

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OB05 PRODUCTION OF PLGA FOAMS USING scCO₂ FOR DRUG DELIVERY SYSTEMS.

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OB06 INFLUENCE OF CARRIER PROPERTIES ON THE DISSOLUTION BEHAVIOR OF IBUPROFEN AT DIFFERENT PH-VALUES

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OB07 A VERSATILE SUPERCRITICAL ASSISTED PROCESS FOR THE PRODUCTION OF NANOSOMES: DEVELOPMENT, PRODUCTION AND COMMERCIALIZATION

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PARTICLE DESIGN (D)

OD01 COMPRESSED FLUIDS FOR THE PRODUCTION OF LIPID-BASED NANOVESICLES WITH APPLICATION IN NANOMEDICINE

L. Ferrer-Tassies^a, N. Segovia^{b,c}, E. Gonzalez^{c,b}, N. Grimaldi^{b,c}, F. Andrade^{b,c}, A. Ardizzone^{b,c}, S. Sala^a, Jaime Veciana^{b,c}, Nora Ventosa^{b,c,*}

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OD02 SUPERCRITICAL ASSISTED ATOMIZATION FOR THE STABILIZATION OF ACTIVE COMPOUNDS

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OD03 MICROENCAPSULATION BY HIGH-PRESSURE SPRAYING PROCESSES

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OD04 CONTINUOUS PRODUCTION OF HOMOGENEOUS VESICULAR SYSTEMS USING COMPRESSED FLUIDS. SCALE-UP OF THE DELOS-SUSP METHOD FOR THE PREPARATION OF LIPOSOMAL AND QUATSUV[®] FORMULATIONS.

Alba Córdoba^{a,*}, Josep Merlo^a, David Pinya^b, Lidia Ferrer^a, Jaime Veciana^{b,c,a}, Nora Ventosa^{b,a,c}, and Santi Sala^{a,b,c}

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OD05 EFFECTS OF ISOMERIZATION ON EXTRACTION AND MICRONIZATION OF CAROTENOIDS USING SUPERCRITICAL FLUID

Motonobu Goto*, Masaki Honda, Tomohiko Kodama, Haruka Sato, Maiko Ono, Wahyudiono, Hideki Kanda

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OD06 MOLECULAR MODELING OF SOLID-FLUID INTERACTIONS TOWARD THE PREDICTION AND CONTROL OF SOLID-PHASE PROPERTIES: A DRUG RECRYSTALLIZATION CASE STUDY USING THE SAS PROCESS

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OD07 NONMONOTONICITY OF THE DEPENDENCE OF MEAN PARTICLE SIZE ON CONCENTRATION IN SUPERCRITICAL ANTISOLVENT PRECIPITATION

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OD08 CO-PRECIPITATION OF CURCUMIN-PVP VIA THE SUPERCRITICAL ANTISOLVENT PROCESS

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INORGANIC MATERIALS (I)

Keynote

KI1 SUPERCRITICAL FLUIDS TECHNOLOGY FOR ADVANCED GEOMINERALS: FROM LAB TO PILOT SCALE FACILITIES

Cyril Aymonier^{1*}, Marie Claverie^{1,2}, Marta Diez-Garcia¹, François Martin³, Christel Careme², Gilles Philippot¹, Michael Tsang⁴, Guido Sonnemann⁴

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Oral

OI01 CHEMICAL VALORISATION USING CO₂ NANOCATALYST UNDER NEARCRITICAL HYDROTHERMAL CONDITIONS

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OI02 CO₂ SEQUESTRATION BY BORON MINERALS

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OI03 GEOLOGICAL LABS ON CHIP: INVESTIGATING DEEP UNDERGROUND PROCESSES UNDER PRESSURE AT MICROSCALE

Anaïs Cario, Abdou Khadre Diouf, Carole Lecoutre, Olivier Nguyen, Dominique Bernard, Yves Garrabos, Samuel Marre*

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OI04 DEVELOPMENT OF CU/NI BINARY CATALYST FOR HYDROTHERMAL OXIDATION OF REFRACTORY COMPOUNDS

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OI05 SYNTHESIS OF 2D Cu(II), Zn(II), AND Co(II) TRIFLUOROACETATE BASED METAL-ORGANIC FRAMEWORKS USING SUPERCRITICAL CO₂

Ana López-Periago^{a,b}, Núria Portolés-Gil,^a Sarah Gowing^a, Oriol Vallcorba,^b Concepción Domingo,^a and José A. Ayllón^c

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OI06 HYDROTHERMAL PROCESS DEVELOPMENT FOR THE TREATMENT OF ASBESTOS CONTAINING WASTE.

Nzogo Metoule C.T.¹, Delaby S.¹, Ferrasse J.-H.² and Boutin O.²,

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OI07 EXPERIMENTAL/NUMERICAL APPROACHES FOR THE INVESTIGATION OF NUCLEATION, GROWTH AND AGGREGATION MECHANISMS FOR THE PRECIPITATION OF Na₂SO₄ IN SUPERCRITICAL WATER

Arnaud Erriguible^{1,2*}, Thomas Voisin^{1,2}, Cyril Aymonier^{1*}

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OI08 KINETICS AND MECHANISM OF BATIO₃ FORMATION IN SUB- AND SUPERCRITICAL WATER

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NANOMATERIALS (M)

Keynote

KM1 SUPERCRITICAL FLUIDS FOR NANOTECHNOLOGY

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Oral

OM01 SUPERCRITICAL FLUID DEPOSITION OF SILANES ON SOLID SURFACE FOR BIOSENSING AND HETEROGENEOUS CATALYSIS APPLICATIONS

Guillaume Nonglaton*

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OM02 ACTIVE COOLING OF COLD-SPRAY NOZZLES BY COMPRESSED CO₂ EXPANSION

Jacobo Morère^a, David Schmidt^b, Victor K. Champagne^c and James J. Watkins^{a*}

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OM03 SUPERCRITICAL CARBON DIOXIDE DEPOSITION OF MULTI-WALLED CARBON NANOTUBE SUPPORTED Pd NANOCATALYSTS FOR SUZUKI-MIYAUURA COUPLING REACTIONS AT MILDER TEMPERATURES

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OM04 SYNTHESIS OF ADVANCED NANOPHOTOCATALYSTS USING SUPERCRITICAL MILLI/MICRO-REACTOR

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OM05 MORPHOLOGY CONTROL OF CuO NANOPARTICLES IN SBA-15 BY ADJUSTING THE DEPRESSURIZATION RATE OF SUPERCRITICAL CO₂

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OM06 NEAR- AND SUPERCRITICAL HYDROTHERMAL FLOW SYNTHESIS OF METAL OXIDE NANOPARTICLES

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OM07 *IN SITU* PAIR DISTRIBUTION FUNCTION STUDY OF ZrO₂ NANOCRYSTALS FORMATION IN SUPERCRITICAL FLUIDS

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OM08 SUPERCRITICAL WATER AS AN AGENT TO TREAT FUSED SILICA CAPILLARIES FOR ANALYTICAL SEPARATIONS

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NATURAL PRODUCTS (N)

Keynotes

KN1 ADVANCING THE APPLICATION OF CRITICAL FLUID TECHNOLOGY IN CANNABIS SCIENCE & ENGINEERING

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KN2 PRACTICAL ASPECTS OF PROCESSING HIGH VALUE LIPIDS USING SUPERCRITICAL FLUIDS

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KN3 EXTRACTION OF LIPIDS FROM WET OR DRIED MICROALGAE

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Oral

ON01 INDUSTRIAL HEMP – THE BIG BOOM?! REGULATORY PROCEDURES – SCALE UP – POSSIBILITIES

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ON02 TWO-STEP SUPERCRITICAL FLUID EXTRACTION OF ANTHOCYANINS AND TOTAL POLYPHENOLS FROM *NITRARIA TANGUTORUN BOBR*

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ON03 DEVELOPING SUPERCRITICAL FLUID EXTRACTION ASSISTED BY COLD PRESSED: A NOVEL EXTRACTION TECHNIQUE WITH PROMISING PERFORMANCE AS APPLIED TO PEQUI (*CARYOCAR BRASILIENSE*)

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ON04 PARTICLE SIZE DISTRIBUTION OF PRETREATED OILSEEDS AFFECTS CUMULATIVE SUPERCRITICAL CO₂ EXTRACTION PLOTS

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ON05 ADDITION OF MANDARIN PEEL CV ARRAYANA PEEL EXTRACTS OBTAINED WITH SUPERCRITICAL FLUIDS TO MAYONNAISE AS A NATURAL ANTIOXIDANT
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ON06 SUPERCRITICAL CO₂ DRYING OF FOOD MATRICES

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ON07 EFFECT OF HIGH PRESSURE PROCESSING ASSISTED BY TEMPERATURE ON BIOACTIVE COMPOUNDS AND ANTIOXIDANT ACTIVITY OF MATE TEA AND MATE TEA LEAVES SWEETENED WITH STEVIA REBAUDIANA

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ON08 VALORIZATION OF BERRY POMACE BY CONSECUTIVE EXTRACTION WITH SUPERCRITICAL CARBON DIOXIDE AND PRESSURIZED LIQUIDS

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ON09 ISOLATION AND DEPROTEINATION OF BIOACTIVE POLYSACCHARIDES FROM CRASSOSTREA GIGAS USING SUBCRITICAL WATER

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ON10 EFFECT OF SUPERCRITICAL CO₂ AND TYPE OF CO-SOLVENT FOR EXTRACTION OF LIPIDS AND TERPENICS FROM GUAYULE BIOMASS (PARTHENIUM ARGENTATUM)
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ON11 APPLICATION OF AN ARTIFICIAL NEURAL NETWORK MODEL FOR THE SUPERCRITICAL FLUID EXTRACTION OF SEED OIL FROM ARGEMONE MEXICANA (L.) SEEDS.

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ON12 A STUDY OF ESSENTIAL OIL EXTRACTION AND ANTIOXIDANT ACTIVITY OF PATCHOULI (POGOSTEMON CABLIN) USING SUPERCRITICAL CARBON DIOXIDE
Soon Hong Soh^{1,2}, Shuchi Agarwal¹, Sundaramurthy Jayaraman¹, Ming Tan Tham², Cindy Lai Yeng Lee^{2*}, and Akshay Jain^{1*}

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ON13 FLOWERS ABSOLUTE FINGERPRINT WITH SFC-HRMS NON TARGETED METHOD

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ON14 EXTRACTION OF VALUABLE COMPOUNDS FROM POMEGRANATE RESIDUES: FOCUS ON THE SUGAR CONTENT OF EXTRACTS.

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ON15 USE OF ULTRA HIGH PRESSURE FLUIDS ON INDUSTRIAL-SCALE

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ON16 TERNARY PHASE EQUILIBRIUM DATA OF CAFFEINE-WATER-SCCO₂ AND CONSEQUENCES FOR SUPERCRITICAL DECAFFEINATION PROCESSES

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ON17 EXTRACTING THE NATURAL INSECTICIDE ABIETADIENE FROM *P. PINASTER* BRANCHES USING SCCO₂

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ON18 DOWNSTREAM PROCESSING OF *ISOCHRYSIS GALBANA* USING WET BIOMASS

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EQUIPMENT and PROCESSES (P)

Keynotes

KP1 AN OVERVIEW OF CORROSION ISSUES IN SUPERCRITICAL FLUIDS

Damien Féron^{1,*}, Stéphane Sarrade^{2,3}, Fabien Rouillard¹, Stéphane Perrin⁴, Raphael Robin³, Jean-Christophe Ruiz⁴, Hubert-Alexandre Turc⁴,

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KP2 SUPERCRITICAL FLUID EXTRACTION AND FRACTIONATION: TWO SOUTH AFRICAN FEASIBILITY STUDIES

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Oral

OP01 THE PRELIMINARY DISCUSSION OF SUPERCRITICAL CO₂ SPRAYING DYEING

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OP02 DYEING OF SOLID WOOD MEDIATED BY SCCO₂: CHALLENGES AND NOVEL APPROACHES

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OP03 CONTRIBUTION OF COMPUTATIONAL FLUID DYNAMICS AND THERMODYNAMICS TO THE DEVELOPMENT OF SUPERCRITICAL CARBON DIOXIDE EXTRACTION PROCESSES

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OP04 MODELLING AND SIMULATION OF A FULLY CONTINUOUS PILOT-SCALE SFE PROCESS

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OP05 RAPID SEPARATION OF ORGANIC COMPOUNDS USING CONTINUOUS SUPERCRITICAL CO₂/LIQUID EXTRACTION PROCESS USING MICROMIXER

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OP06 EXPERIMENTAL INVESTIGATION ON CONVECTIVE HEAT TRANSFER OF SUPERCRITICAL NOVEC 649 IN A HORIZONTAL MINIATURE TUBE

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REACTIONS (R)

Keynotes

KR1 HYDROTHERMAL OXIDATION: THE NEXT GENERATION FOR ABATEMENT OF UNRECYCLABLE WASTE OF HAZARDOUS NATURE AND COMPLEX COMPOSITION

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KR2 THE HETEROGENEOUS SCF PROCESSES FOR CATALYSIS AND RELATED AREAS – IN THE FOCUS OF RUSSIAN R&D INSTITUTIONS

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KR3 EXPERIMENTAL AND NUMERICAL EVALUATION OF ORGANIC COMPOUNDS DECOMPOSITION IN CONTINUOUS SUPERCRITICAL WATER REACTOR

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KR4 IMPROVING KINETIC MODELS OF CELLULOSE HYDROLYSIS IN SUPERCRITICAL WATER.

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Oral

OR01 COMMERCIAL ORGANIC CHEMICAL WASTE DESTRUCTION USING SUPERCRITICAL WATER OXIDATION

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OR02 PRESSURIZED FLUID PROCESSING: FROM BY-PRODUCTS TO VALUE-ADDED PRODUCTS

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OR03 VALORISATION OF SPENT COFFEE GROUNDS USING SUBCRITICAL WATER

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OR04 HOW TO ADD VALUE TO WASTE HAZELNUT SHELL BY USING SUBCRITICAL WATER AS A REACTION MEDIUM?

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OR05 CANCELLED

OR06 HYDROTHERMAL OXIDATION OF FERMENTATION FILTRATE FOR USE IN A REGENERATIVE LIFE SUPPORT SYSTEM

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OR07 EXPERIMENTAL, KINETIC AND THERMODYNAMIC STUDIES OF THE SYNTHESIS OF 5-HYDROXYMETHYLFURFURAL FROM BIOMASS IN HIGH PRESSURE/HIGH TEMPERATURE CO₂-WATER SYSTEM

Hélène Labauze^{a,b*}, Bouchra Benjelloun-Mlayah^a, Séverine Camy^b, Jean-Stéphane Condoret^b

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OR08 SUBCRITICAL WATER BASED TECHNOLOGIES FOR EXTRACTION PROCESSES AND BIOMASS CONVERSION : A REVIEW

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OR09 EXPERIMENTAL AND ECONOMICAL CASE STUDY: COMPETITIVE LIGNIN BIOREFINERY BY COMBINING HIGH PRESSURE HYDROLYSIS AND EXTRACTION

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OR10 LIGNIN DEPOLYMERIZATION FROM SUBCRITICAL TO SUPERCRITICAL WATER

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OR11 CELLULOSE DISSOLUTION-HYDROLYSIS-DEHYDRATION OVER SOLID ACID CATALYSTS IN SUBCRITICAL WATER AND WATER/ORGANIC SYSTEMS

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OR12 BIOREFINING OF CANOLA STRAW USING PRESSURIZED AQUEOUS ETHANOL: NANOSIZED CELLULOSE

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OR13 WET AIR OXIDATION vs ELECTRO-OXIDATION : COMPARISON BETWEEN TWO CLEAN PROCESSES FOR TREATMENT OF HIGHLY CONCENTRATED AQUEOUS WASTE.

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OR14 ASYMMETRIC ORGANOCATALYSIS IN LIQUID OR SUPERCRITICAL CARBON DIOXIDE MEDIA

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OR15 LIMONENE CARBONATE PRODUCTION FROM CO₂: CONTINUOUS FLOW CATALYSIS WITH INTEGRATED PRODUCT SEPARATION

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OR16 HIGH-PRESSURE HYDROGEN PRODUCTION FROM FORMIC ACID AND THE SEPARATION OF H₂/CO₂ UNDER HIGH-PRESSURE CONDITIONS

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OR17 CO-ELECTROLYSIS OF CARBON DIOXIDE AND WATER IN A PRESSURIZED ELECTROLYSER

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THERMODYNAMICS – TRANSPORT PROPERTIES (T)

Keynote

KT1 SPECIFICS OF THERMOPHYSICAL PROPERTIES AND HEAT TRANSFER AT SUPERCRITICAL PRESSURES IN POWER-ENGINEERING APPLICATIONS

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Oral

OT01 CALCULATION OF SOLUBILITY OF SUPERCRITICAL FLUIDS IN AMORPHOUS AND GLASSY POLYMERS

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OT02 CO₂ + METHANOL + GLYCEROL: DETERMINATION OF THE COMPOSITIONS IN VLLLE FROM A SYNTHETIC METHOD-BASED EXPERIMENT/THEORETICAL PROCEDURE

Gonçalo V. S. M. Carrera,^a Manuel Nunes da Ponte^{a,*}

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OT03 ON THE SOLUBILITY OF CHITOSAN IN AQUEOUS ACETIC ACID AND PRESSURIZED (CARBON DIOXIDE + WATER)

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OT04 SUPERCRITICAL PSEUDO-BOILING

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OT05 MEASUREMENT AND CORRELATION OF METAL COMPLEXES IN HIGH TEMPERATURE SUPERCRITICAL CARBON DIOXIDE

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OT06 EFFECT OF NONFLUORINATED SURFACTANTS' HYDROPHILIC TAILS ON CO₂-IN-WATER (C/W) EMULSION STABILIZATION

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OT07 VISCOSITY OF SQUALANE SATURATED WITH CARBON DIOXIDE MEASURED WITH ACOUSTIC LEVITATION AND CAPILLARY RHEOMETRY

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OT08 APPARENT CONTACT ANGLE OF OLEIC ACID AND TRIOLEIN ON A REVERSE OSMOSIS MEMBRANE IN SC-CO₂ ENVIRONMENT

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POSTERS

CHROMATOGRAPHY (C)

PC01 INFLUENCE OF THE ADDITIVES ON THE RETENTION OF ANALYTES ON THE POLAR STATIONARY PHASES UNDER CONDITIONS OF SUPERCRITICAL FLUID CHROMATOGRAPHY

Bogolitsyn K.G.^{a*}, Ovchinnikov D.V.^a, Ul'yanovskii N.V.^a, Kosyakov D.S.^a, Falev D.I.^a, Pokrovsky O.I.^b

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ENERGY-FUELS (E)

PE01 EFFECT OF MODIFIERS ON SUPERCRITICAL CARBON DIOXIDE EXTRACTION OF BITUMEN

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PE02 THE EFFECT OF TEMPERATURE, PRESSURE AND MODIFIER ON THE INITIAL SOLUBILITY OF WASTE STREAM BITUMEN IN SUPERCRITICAL CARBON DIOXIDE

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PE03 LEACHING OF SOME TURKISH COALS WITH SUBCRITICAL WATER AND ORGANIC ACIDS

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PE04 THE KINETICS OF THE UPGRADING OF HEAVY OIL IN SUPERCRITICAL METHANOL

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EXTRACTION - FRACTIONATION PROCESSES (NF)

PF01 GAS TO LIQUID RATIO OPTIMIZATION FOR THE REDUCTION OF ETHANOL RESIDUE FOR THE PRODUCTION OF LIPOSOMES WITH A SUPERCRITICAL ASSISTED TECHNIQUE

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PF02 RECOVERY OF CARBOXYLIC ACIDS FROM DILUTE AQUEOUS SOLUTIONS USING SUPERCRITICAL CO₂ PACKED COLUMN

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PF03 THE APPLICATIONS OF SUPERCRITICAL FLUID SIMULATED MOVING BED TO THE SEPARATION OF NATURAL PRODUCTS

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PF04 SUPERCRITICAL FLUID PROPANE-BUTANE MIXTURE IN REFINERY AND PETROCHEMISTRY

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PF05 ELIMINATING GLUTARALDEHYDE FROM CROSSLINKED COLLAGEN FILMS USING SUPERCRITICAL CO₂

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PF06 SULPHUR TERPENOID CONCENTRATION BY COUNTER-CURRENT FRACTIONATION: A FEASIBILITY STUDY

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PF07 THE SEPARATION OF DETERGENT RANGE ALKANES AND ALCOHOLS: SUPERCRITICAL FLUIDS AS THE GREEN ALTERNATIVE SOLVENT

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PF08 ARTIFICIAL NEURAL NETWORKS AS TOOL FOR SFE PROCESS OPTIMIZATION

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MATERIALS (PM)

PM01 RAMAN- AND PARTIAL MOLAR RAMAN SPECTROSCOPY FOR THE DETECTION OF NANOSTRUCTURED SYSTEMS

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PM02 SYNTHESIS AND CHARACTERIZATION OF ALGINATE/INULIN AEROGEL MACROSPHERES USING SUPERCRITICAL FLUID TECHNOLOGY

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PM03 PRODUCTION OF AEROGELS USING A BIODEGRADABLE POLYMER: MATHEMATICAL MODELING OF SUPERCRITICAL DRYING

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PM04 NANOCELLULAR FOAMING WITH RAPID DEPRESSURIZATION SYSTEM FROM 100 MPA Satoshi YODA¹, Kohei TADUMI², Xueli WU¹, Takeshi FURUYA¹

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PM05 FOAMING OF POLY(ETHYLENE-CO-VINYL ACETATE) AND POLY(ETHYLENE-CO-VINYL ACETATE-CO-CARBON MONOXIDE) AND THEIR BLENDS WITH CARBON DIOXIDE

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PM06 CONFINED FOAMING OF POLYMERS IN SUPERCRITICAL CARBON DIOXIDE

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PM07 INFLUENCE OF ULTEM AND POLYHEXAFLUOROPROPYLENE THIN FILMS SWELLING IN SUPERCRITICAL CARBON DIOXIDE ON THEIR GAS SEPARATION PROPERTIES

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PM08 ENVIRONMENTALLY SAFE ROUTE FOR PRODUCING REDISPERSIBLE POLYMER POWDERS AND INVESTIGATION OF MATERIALSBASED ON THEM

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PM09 PHOTOACTIVE INTERPENETRATING POLYMER NETWORK AS INTELLIGENT DRUG DELIVERY SYSTEM FABRICATED BY SUPER CRITICAL CARBON DIOXIDE TECHNOLOGY

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PM10 N₂ AND CO₂ ADSORPTION ISOTHERMS OF MICRO AND MESOPOROUS MATERIALS CRYSTALLIZED IN SCCO₂

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PM11 NEAR CRITICAL AND SUPERCRITICAL IMPREGNATION OF CLOVE ESSENTIAL OIL IN LLDPE FILMS: STABILITY AND KINETIC STUDY

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PM12 PRODUCTION OF MATERIALS WITH ANTIMICROBIAL PROPERTIES BY A COMBINED EXTRACTION AND IMPREGNATION PROCESS

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PM13 SYNTHESIS OF CURCUMINOID-MOFS: COMPARISON BETWEEN SUPERCRITICAL CO₂ AND SOLVOTHERMAL METHODS

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PM14 CRYSTALLIZATION OF NANOSTRUCTURED CURCUMIN MOF IN SUPERCRITICAL CO₂

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PM15 PRODUCTION OF B-CAROTENE/PVP COPRECIPITATES USING SUPERCRITICAL ASSISTED ATOMIZATION

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PM16 SALBUTAMOL SPHERICAL PARTICLES FORMATION BY SUPERCRITICAL ANTISOLVENT PRECIPITATION

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PM17 ELABORATION OF PLA-BASED BIOCOMPOSITE FOAMS

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PM18 *IN SITU* AND *EX SITU* CHARACTERIZATIONS OF C/C COMPOSITES PREPARED UNDER HIGH PRESSURE AND HIGH TEMPERATURE CONDITIONS

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PM19 A NEW STRATEGY FOR THE SYNTHESIS OF SILICON NANOPARTICLES IN SUPERCRITICAL MEDIUM

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PM20 XAFS STUDY FOR FORMATION MECHANISM OF NANOPARTICLES IN SUPERCRITICAL WATER

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PM21 GAS ANTISOLVENT METHOD (GAS METHOD) FOR CRYSTALLIZATION OF METAL-ORGANIC COORDINATION COMPLEXES

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PM22 PREPARATION OF LIPOSOMES ENCAPSULATING Z-ISOMERIZED β -CAROTENE USING SUPERCRITICAL CARBON DIOXIDE WITH ULTRASONICATION

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PM23 SUPERCRITICAL CO₂-ASSISTED FLOW CHEMISTRY FOR SYNTHESIZING SWITCHABLE MOLECULAR NANOMATERIALS

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PM24 DECELLULARIZED EXTRACELLULAR MATRIX USING LIQUEFIED DIMETHYL ETHER FOR TISSUE ENGINEERING/REGENERATIVE MEDICINE

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PM25 PREPARATION OF PGX-DRIED GUM ARABIC AND ITS LOADING WITH COQ10 BY ADSORPTIVE PRECIPITATION

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PM26 SUPERCRITICAL ANTISOLVENT COPRECIPIATION OF PVP/KETOPROFEN MICROPARTICLES

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PM27 STUDY OF THE NANOSTRUCTURE AND FORMATION MECHANISM OF COMPOSITE MICROPARTICLES PRODUCED BY SAA

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PM28 ANTIOXIDANT LOADED NANOEMULSIONS ENTRAPPED IN LIPOSOMES PRODUCED WITH A SUPERCRITICAL ASSISTED TECHNIQUE

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PM29 POROUS AND SAFE OCULAR IMPLANTS DEVELOPED BY SCCO₂ FOAMING/MIXING FOR INCREASED DEGRADATION RATES

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PM30 FORMATION OF THE MULTIFUNCTIONAL METAL-POLYMER COMPOSITE WITH ANTISEPTIC, ANESTHETIC AND BACTERICIDAL PROPERTIES BY GREEN TECHNOLOGIES

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PM31 AEROGEL: ENABLING AEROGEL TECHNOLOGY TRANSLATION FOR CARE, LIFE SCIENCE, NUTRITION AND PHARMACEUTICAL MARKETS

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PM32 FIRST EVIDENCE OF SOLVENT SPILLAGE UNDER SUBCRITICAL CONDITIONS IN AEROGEL PRODUCTION

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PM33 INVESTIGATION OF PHENOMENA RELATED TO SUPERCRITICAL IMPREGNATION OF POLYMERIC INTRAOCULAR LENSES WITH ANTIBIOTICS TO PREVENT CATARACT POSTOPERATIVE ENDOPHTHALMITIS

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- PM34 3D AEROGELS OF 2D LAMINAR NANOSTRUCTURES BY SUPERCRITICAL CO₂**
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- PM35 ALGINATE AEROGELS FOR TEXTILE APPLICATIONS**
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- PM36 A SUPERCRITICAL CO₂ PROCESS FOR THE PRODUCTION OF VINYL FUNCTIONALISED POLYMER PARTICLES**
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- PM37 PRELIMINARY OPTIMIZATION OF SUPERCRITICAL DECELLULARIZATION**
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- PM38 SYNTHESIS OF TRANSLUCENT CHITOSAN AEROGEL AND ITS HYDROPHOBIC MODIFICATION**
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- PM39 FUNCTIONALIZATION OF NANOCELLULOSIC STRUCTURED MATERIALS IN SUPERCRITICAL CARBON DIOXIDE FOR ANTIMICROBIAL WOUND DRESSINGS DESIGN**
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- PM40 DEVELOPMENT OF DRY POWDER FORMULATIONS CONTAINING ANTIBACTERIAL COMPOUNDS**
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- PM41 NOVEL POLYVINYL ALCOHOL AEROGEL FOR EFFICIENT REMOVAL OF MOISTURE FROM GASEOUS STREAMS**
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- PM42 SUPERCRITICAL CARBON DIOXIDE: A NON-AQUEOUS CLEANING AGENT IN SURFACE PREPARATION OF POLYMERS BY INCREASING THE SURFACE ENERGY**
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NATURAL PRODUCTS (PN)

PN01 APPLICATION OF WINTER SAVORY EXTRACTS OBTAINED BY SFE AND HYDRODISTILLATION AS FOOD PRESERVATIVES

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PN02 THE VARIABILITY OF COMPONENT COMPOSITION OF *NIGELLA SATIVA* L. SUPERCRITICAL CO₂ EXTRACT DEPENDING ON SOIL-CLIMATIC CONDITIONS

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PN03 COMPONENT COMPOSITION OF SUPERCRITICAL EXTRACT OF AERIAL PARTS OF *ROSMARINUS OFFICINALIS* L. FROM THE COLLECTION OF THE BOTANICAL GARDEN OF PYATIGORSK MEDICO-PHARMACEUTICAL INSTITUTE

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PN04 INTEGRATED PROCESSES APPLIED TO OBTAIN BIOPOTENTIAL EXTRACTS FROM PAPAYA SEEDS

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PN05 THE EFFECT OF RAW MATERIAL PREPARATION ON THE SUPERCRITICAL FLUID EXTRACTION OF THE OIL FROM ORANGE PEEL

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PN06 SUPERCRITICAL CO₂ EXTRACTION OF NEUTRAL LIPIDS FROM *NANNOCHLOROPSIS MARITIMA* & *NANNOCHLOROPSIS SALINA*: EXPERIMENTS AND MODELLING

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PN07 APPLICATION OF A HIGH PRESSURE BIOREFINERY CASCADE FOR CREATING ADDED VALUE ON JATROPHA PRESSCAKE AND SHELLS

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PN08 SUPERCRITICAL CO₂ FRACTIONATION APPLIED TO AN AQUEOUS SUSPENSION OF *CHLORELLA VULGARIS* MICROALGAE

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- PN09 BIOREFINING OF BUCKWHEAT FLOWERS AND EUROPEAN GOLDENROD LEAVES BY SUPERCRITICAL CARBON DIOXIDE AND PRESSURIZED LIQUID EXTRACTION**
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- PN10 EXTRACTION OF GELATIN FROM BIGEYE TUNA SKIN: EFFECT OF ACID PRETREATMENT IN SUPERCRITICAL CARBON DIOXIDE**
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- PN11 RECOVERING POLYSACCHARIDE INCLUDING BETA-GLUCAN FROM *GRIFOLA FRONDOSA* BY PRESSURIZED HOT WATER**
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- PN12 CANNABIS EXTRACTION BY SUPERCRITICAL CO₂: STATE OF ART AND FUTURE PERSPECTIVES**
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- PN13 EXTRACTION OF OIL FROM RUBBER TREE (*HEVEA BRASILIENSES*) SEED SHELL USING SUPERCRITICAL FLUID**
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- PN14 SUPERCRITICAL EXTRACTION OF *CHRYSOBALANUS ICACO* OIL WITH CO₂: A PRELIMINARY STUDY**
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- PN15 MATHEMATICAL MODELING OF PINK PEPPER (*S. TEREBINTHIFOLIUS RADDI*) SUPERCRITICAL CO₂ EXTRACTION**
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- PN16 ANNATTO SEED OIL FRACTIONATION BY SEQUENTIAL SUPERCRITICAL CO₂ EXTRACTION**
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- PN17 STABILITY OF MUSHROOM POLYPHENOL OXIDASES AND HORSERADISH PEROXIDASES UNDER SUPERCRITICAL CARBON DIOXIDE**
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- PN18 SUPERCRITICAL FLUID EXTRACTION OF 6-METHOXYEUGENOL FROM *PIPER HISPIDINERVUM***
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- PN19 PROCESS STUDY OF CAFFEINE SUPERCRITICAL EXTRACTION FROM YERBA-MATE**
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- PN20 PRESSURE EFFECT ON GINGER ESSENTIAL OIL EXTRACTION BY SUPERCRITICAL CARBON DIOXIDE AND STEAM DISTILLATION**
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- PN21 STUDY OF COSOLVENT EFFECT TO OBTAIN EXTRACTS FROM *ACHYROCLINE SATUREIODES* AND ITS POTENTIAL IN PERFUMERY INDUSTRY**
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- PN22 ENCAPSULATION OF LAUREL LEAVES ESSENTIAL OIL (*LAURUS NOBILIS* L.) BY SUPERCRITICAL FLUID EXTRACTION OF EMULSION (SFEE)**
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- PN23 EFFECT OF TEMPERATURE UNDER THE CO-PRECIPIATION OF THE EXTRACT FROM BLACKBERRY RESIDUE THROUGH SUPERCRITICAL ANTISOLVENT PROCESS**
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- PN24 SUPERCRITICAL FLUID EXTRACTION OF COUMARINS FROM *PTEROCAULON BALANSAE*: MATHEMATICAL MODELING AND EVALUATION OF ANTIFUNGAL PROPERTIES**
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PN25 REMOVAL OF TANNINS FROM FABA BEAN HULL USING SUBCRITICAL WATER

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PN26 MODIFIED BARLEY STARCH FOR RUTIN LOADING IN SUBCRITICAL WATER MEDIA

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PN27 DESODORISATION AND DISCOLORATION OF LIPIDIC AND AQUEOUS LIQUIDS BY SUPERCRITICAL CO₂

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PN28 SUPERCRITICAL FLUID EXTRACTION OF *EUGENIA PYRIFORMIS* LEAVES

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PN29 MICROALGAE BIOREFINERIES AND SUSTAINABILITY: THE ROLE OF COMPRESSED FLUIDS

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PN30 RECOVERY OF NATURAL-BASED PIGMENTS FROM MARINE CRUSTACEAN WASTE STREAMS USING SUPERCRITICAL FLUID TECHNOLOGY

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PN31 CARBON DIOXIDE EXPANDED ETHANOL EXTRACTION OF ASTAXANTHIN FROM MICROALGAE

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PN32 SUPERCRITICAL FLUID EXTRACTION OF HIGH VALUE LIPIDS FROM CANNED SARDINE WASTE STREAMS

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PN33 EXTRACTION AND ENCAPSULATION OF ALGAE DERIVED PRODUCTS USING SUPERCRITICAL FLUID TECHNOLOGY

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PN34 ON FISH WASTE AS A HUMAN HEALTH ENHANCER - SUSTAINABLE PROCESSES FOR PREBIOTICS PRODUCTION

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PN35 TEMPERATURE GRADIENTS WITHIN THE PACKED BED AFFECT CUMULATIVE SUPERCRITICAL CO₂ EXTRACTION PLOTS FOR OILSEEDS

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PN36 SUB-CRITICAL ETOH EXTRACTION OF ROSE HIP SEEDS: CHEMICAL COMPOSITION AND PROCESS OPTIMIZATION

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PN37 DEOILING SPENT BLEACHING CLAYS FROM EDIBLE OIL REFINING INDUSTRIES BY SUPERCRITICAL CO₂

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PN38 EXTRACTION OF BORIC ACID FROM ULEXITE MINERAL BY SUPERCRITICAL CO₂

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PN39 EXTRACTION AND FRACTIONATION OF CANNABINOIDS FROM *CANNABIS SATIVA*

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PN40 WETTING BEHAVIOR OF CORN OIL ON STAINLESS STEEL SURFACE UNDER DENSE NITROGEN AND CARBON DIOXIDE

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PN41 PRODUCTION OF FUNCTIONAL FOOD INGREDIENTS USING SUB-CRITICAL WATER

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PN42 EXTRACTION OF STILBENES FROM WINE INDUSTRY WASTES

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PN43 ACTIVE INGREDIENT RELEASE FROM POROUS MATRICES TO CONTROL THE INSECT VECTOR OF PINE WILT DISEASE

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EQUIPMENT (PQ)

PQ01 DESIGN OF HIGH PRESSURE EQUIPMENT FOR SUPERCRITICAL DRYING

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PQ02 A TRANSPARENT MICRO-DEVICE TO STUDY MASS TRANSFER AND THERMODYNAMICS IN TWO-PHASE FLOWS AT HIGH PRESSURE

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PQ03 HYDRAULIC POWER IN THE SCF PILOT SCALE SYSTEMS FROM CONCEPT TO REALIZATION

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REACTIONS (PR)

PR01 EFFECT OF HIGH-PRESSURE CO₂ ON POLYURETHANE SYNTHESIS

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PR02 SYNTHESIS OF POLY(GLOBALIDE-CO-E-CAPROLACTONE) IN SUPERCRITICAL CARBON DIOXIDE

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PR03 HYDROTHERMAL CONVERSION OF SACCHAROSE IN WATER FROM AMBIENT TO SUPERCRITICAL CONDITIONS – AN *IN SITU* RAMAN ANALYSIS

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PR04 SUBCRITICAL WATER HYDROLYSIS OF RICE HUSK FOR OBTAINING FERMENTABLE SUGARS

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PR05 CATALYTIC HYDROGENATION OF FUMARIC ACID TO 1,4-BUTANEDIOL IN SUPERCRITICAL CO₂ BY RUTHENIUM, PALLADIUM AND IRIIDIUM

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PR06 PHYSICO-CHEMICAL AND BIOFUNCTIONAL PROPERTIES OF SHRIMP (*PENAEUS JAPONICUS*) HYDROLYSATES OBTAINED FROM SUBCRITICAL WATER TREATMENT

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PR07 HYDROTHERMAL OXIDATION: THE NEXT GENERATION FOR ABATEMENT OF UNRECYCLABLE WASTE OF HAZARDOUS NATURE AND COMPLEX COMPOSITION

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PR08 NOXYCLEAN™: A COMPACT CLEAN UNIT FOR THE DISINFECTION AND DESTRUCTION OF HEALTH-CARE WASTES

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PR09 A MOBILE PILOT PLANT FOR SUPERCRITICAL WATER OXIDATION OF PCB-CONTAMINATED TRANSFORMER OIL

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PR10 COMPUTATIONAL MODELING OF MIXING AND GASIFICATION OF GLYCEROL IN CONTINUOUS FLOW SUPERCRITICAL WATER REACTOR

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PR11 SUPERCRITICAL WATER HYDROLYSIS OF MODEL ORGANIC COMPOUNDS WITH IN-SITU PROCESS MONITORING

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PR12 FRACTIONATION OF HIGH LIGNIN CONTENT BIOMASS BY SUPERCRITICAL WATER ULTRAFAST HYDROLYSIS

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PR13 ACTIVITY AND STABILITY OF B-GALACTOSIDASE IN SC CO₂

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PR14 HYDROLYSIS OF CASSAVA STARCH, CHITOSAN AND THEIR MIXTURES IN SUBCRITICAL WATER MEDIA

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PR15 HYDROGENOLYSIS OF LIGNINE IN SUPERCRITICAL ETHANOL. THE INFLUENCE OF NATURE OF CATALYST ACTIVE SITES AND REDUCING AGENT

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THERMODYNAMICS-TRANSPORT PROPERTIES (PT)

PT01 FLUID PHASE BEHAVIOR UNDER SUPERCRITICAL CONDITIONS OF BINARY SYSTEMS IN PRESENCE OF IMIDAZOLIUM AND AMMONIUM IONIC LIQUIDS

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PT02 THE THERMODYNAMIC PROPERTIES OF NORMAL HEPTANE IN THE CRITICAL REGION

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PT03 DENSITIES AND PHASE EQUILIBRIA OF SUPERCRITICAL HYDROGEN, PROPANE AND VEGETABLE OIL MIXTURES. EXPERIMENTAL DATA AND THERMODYNAMIC MODELING

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PT04 INVESTIGATION OF THE EFFECT OF DIFFERENT THERMODYNAMIC HYDRATE INHIBITORS ON THE FORMATION OF CARBON DIOXIDE HYDRATE BY RAMAN SPECTROSCOPY

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PT05 SEPARATION OF DETERGENT RANGE ALKANES AND ALCOHOLS WITH SUPERCRITICAL FLUIDS: TERNARY AND MULTICOMPONENT PHASE BEHAVIOUR

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PT06 NON-INVASIVE DETERMINATION OF CO₂-SOLUBILITIES IN INDUSTRIALLY RELEVANT POLYOLS AND ISOCYANATES AT ELEVATED PRESSURES

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PT07 PHASE EQUILIBRIA OF 1,4-BUTANEDIOL IN SUPERCRITICAL CO₂

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PT08 THERMAL CHARACTERIZATIONS AND MELTING POINT DEPRESSION OF COPOLYMERS OF ETHYLENE, VINYL ACETATE, AND CARBON MONOXIDE AND THEIR BLENDS IN CO₂ AT HIGH PRESSURES

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PT09 SPECTRAL ANALYSIS OF IONIC LIQUIDS + SOLVENT MIXTURES AND SOLUTIONS FROM EXTRACTIONS OF BAMBOO WITH IONIC LIQUID + ETHANOL MIXTURES AT HIGH PRESSURES

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PT10 THERMODYNAMIC MODELING AND SIMULATION AT HIGH- PRESSURES OF BINARY SYSTEMS CONTAINING BIODIESEL COMPONENTS: DIFFERENT TYPES OF THE PENG-ROBINSON EQUATION OF STATE VS ARTIFICIAL NEURAL NETWORKS

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PT11 TOWARDS A BETTER UNDERSTANDING OF SIMULATING THE MULTICOMPONENT SOLUBILITY OF NATURAL EXTRACTS IN SUPERCRITICAL CARBON DIOXIDE

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PT12 CORRELATIONS FOR BINARY DIFFUSION COEFFICIENTS OF SOLUTES IN SUPERCRITICAL FLUIDS AND LIQUIDS USING HYDRODYNAMIC EQUATION WITH MOLECULAR VOLUME

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PT13 THERMODYNAMIC AND MASS TRANSFER DATA FOR MATERIAL PROCESSING USING SUPERCRITICAL FLUIDS

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PT14 VOLUMETRIC PROPERTIES AND VISCOSITY OF IMIDAZOLIUM BASED IONIC LIQUIDS WITH VARYING ALKYL FUNCTIONAL GROUPS AND THEIR MIXTURES WITH ETHANOL UNDER PRESSURE

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PT15 INVESTIGATIONS OF HYDRODYNAMIC BEHAVIOR IN HIGH PRESSURE MICROFLUIDIC SYSTEMS

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PT16 PRESSURE VERSUS TEMPERATURE ISOCHORIC-ISOPLETHIC TRAJECTORIES FOR BINARY AND TERNARY SYSTEMS RELATED TO THE SUPERCRITICAL HYDROGENATION OF POLYBUTADIENE

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PT17 MODELIZATION OF THE SUPERCRITICAL CARBON DIOXIDE SOLUBILITY OF CAROTENOIDS AND CHLOROPHYLL USING HANSEN THEORY

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PT18 EFFECT OF MOLECULAR WEIGHT OF CO₂-PHILIC ADDITIVES ON CO₂ DIFFUSION IN POLYSTYRENE MICROCELLULAR FOAMING

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PT19 HIGH-PRESSURE PHASE EQUILIBRIUM STUDIES OF MULTICOMPONENT (ALCOHOL+WATER+IONIC LIQUID+CO₂) SYSTEMS

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