



# ECTP 2014

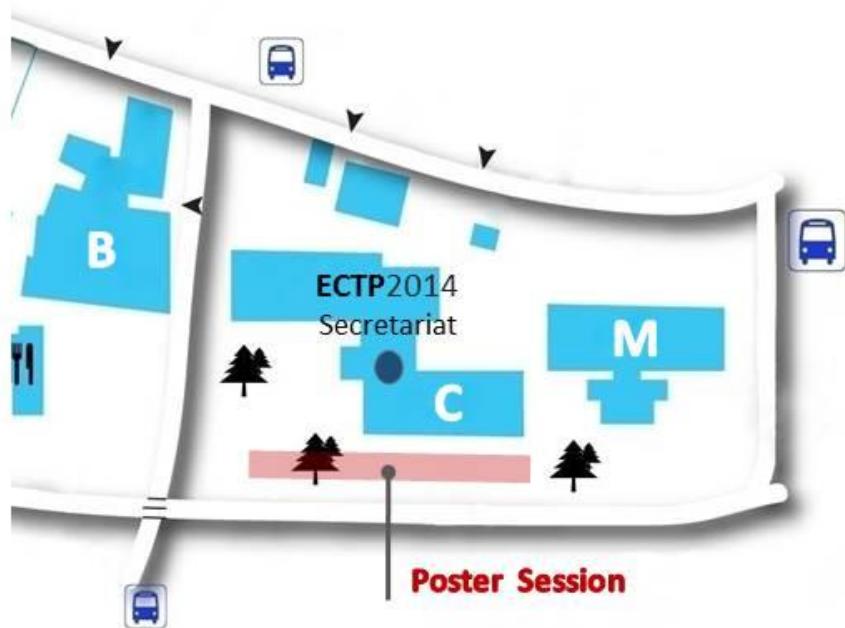
20<sup>TH</sup> EUROPEAN CONFERENCE ON THERMOPHYSICAL PROPERTIES  
AUGUST 31st - SEPTEMBER 4th 2014

## PROGRAMME POSTER SESSION

# POSTER SESSION

15:30 – 19:00, 3<sup>rd</sup> September 2014

## ECTP2014 Conference Map... Poster Session



ECTP2014, Porto, Portugal – August 2014

Credits: Ana Lobo Ferreira, Ana Rodrigues, Carlos Lima, Filipe Ribeiro, Inês Vaz, Luís Santos, Paulo Serra

- P.001 Effect of salt addition in the adsorption of ionic liquids onto activated carbon**  
Catarina M.S.S. Neves, Jesús Lemus, Mara G. Freire, Jose Palomar, João A.P. Coutinho
- P.002 Thermophysical properties and mutual solubilities between water and [imidazolium-based] [NTF<sub>2</sub>] ionic liquids**  
Mónia A.R. Martins, Catarina M.S.S. Neves, Kiki A. Kurnia, Luís M.N B.F. Santos, Mara G. Freire, Simão P. Pinho, João A.P. Coutinho
- P.003 Electrophysical and structure-sensitive properties of Ga-In alloys**  
Yuriy Plevachuk, V. Sklyarchuk, N. Shevchenko, S. Eckert, G. Gerbeth
- P.004 Nitrogen or oxygen solubility in liquids for bulk or solution polymerization of styrene**  
Tomoya Tsuji, Koh-hei Ohya, Taka-aki Hoshina, Toshihiko Hiaki
- P.005 Viscosity of fatty acid methyl and ethyl esters under high pressure: methyl myristate, ethyl myristate**  
Habrioux Matthieu, Bazile Jean-Patrick, Pauly Jérôme, Galliero Guillame, Daridon Jean-Luc
- P.006 High pressure measurements of density and speed of sound in two biodiesels**  
Habrioux Matthieu, Nasri Djamel, João A.P. Coutinho, Daridon Jean-Luc
- P.007 Aqueous biphasic systems formed by ionic liquids and organic salts: influence of the pH**  
Maria V. Quental, Mara G. Freire, Helena Passos, João A.P. Coutinho, Kiki A. Kurnia
- P.008 Solubility measurements of R134A in nanolubricant**  
Mauro Scattolini, Yanjun Sun, Sergio Bobbo, Laura Colla, Laura Fedele
- P.009 Influence of oxygen partial pressure of measurement atmosphere on surface tension of molten copper**  
Shumpei Ozawa, Yuto Takei, Takashi Inoue, Suguru Takahashi, Hiroyuki Fukuyama
- P.010 Investigation of thermophysical properties of 1-butanol at high pressures and temperatures**  
Bahruz Ahmadov, Javid Safarov, Saleh Mirzayev, Astan Shahverdiyev, Egon Hassel
- P.011 Liquid solid equilibrium of biodiesel-petroleum diesel blends**  
Assamoi C. Kouakou, Grégory Foulonneau, Jérôme Pauly
- P.012 Addition of ionic liquids to tune the phases' polarities of polymer-salt aqueous biphasic systems**  
Mafalda R. Almeida, Emanuel Capela, Helena Passos, Pedro Domingues, João A.P. Coutinho, Mara G. Freire
- P.013 Surface tensions of phenolic moieties rich narrow boiling range distillation cuts from kukersite oil shale based crude oil**  
Tiina Albert, Zachariah S. Baird, Vahur Oja
- P.014 Isobaric vapor-liquid equilibrium of binary mixtures HFE7100 + 2-propanol**  
Natalia Muñoz, Adil Srhiyer, Eduardo Montero, Fernando Aguilar
- P.015 Density and speed of sound for the binary system HFE7100 + 2-propanol**  
Adil Srhiyer, Natalia Muñoz, Fernando Aguilar, Eduardo Montero
- P.016 Vapor-liquid equilibrium and excess enthalpy of 2-pentanol + hexane or + 1-hexene for the characterization of biofuels**  
Alejandro Moreau, M. Carmen Martín, César R. Chamorro, Rosa M. Villamañán, José J. Segovia
- P.017 pH-driven reversible aqueous biphasic systems composed of ionic liquids**  
Ana M. Ferreira, Ana M. Fernandes, Robin D. Rogers, João A.P. Coutinho, Mara G. Freire
- P.018 Thermodynamic characterization of synthetic biogas mixtures**  
Fernando J. Pérez-Sanz, Ángel Gómez-Hernández, José J. Segovia, Miguel Á. Villamañán, César R. Chamorro, M. Carmen Martín
- P.019 Thermophysical properties of (2-butanol + 2,2,4-trimethylpentane) mixtures at high pressures**  
Johnny R. Zambrano, M. Carmen Martin, Miguel A. Villamañán, César R. Chamorro, José J. Segovia

- P.020 High-pressure phase behavior of elastomers in chlorodifluoromethane**  
Sang Mi Han, Hye Ri No, **Byung-Chul Lee**, Ja-Young Kim, Won Bok Jeong, Keun Deuk Lee
- P.021 High-pressure phase behavior of elastomers in dimethyl ether**  
Hye Ri No, Sang Mi Han, **Byung-Chul Lee**, Ja-Young Kim, Won Bok Jeong, Keun Deuk Lee
- P.022 Density of Caspian Sea- and geothermal water resources of Azerbaijan at high pressures and temperatures**  
Misirkhan Talibov, Abzar Mirzaliyev, **Javid Safarov**, Astan Shahverdiyev, Egon Hassel
- P.023 Phase diagrams for ternary systems composed of water, protic ionic liquids and polypropylene glycol**  
Andreia Luís, Helena Passos, João A.P. Coutinho, Mara G. Freire
- P.024 Limiting partial molar volumes of ammonium bromide in aqueous ethanol**  
Ouahiba Tafat-Igoudjilene, Naima Chouireb, Ahmed Ait-Kaci
- P.025 Investigation of not fully stable fluids by the method of controlled pulse heating: supercritical fluids**  
Sergey B. Rutin, Pavel V. Skripov
- P.026 Densities and excess volumes of aqueous mixtures of 2-(iso-propylamino)ethanol and 1-methylimidazole**  
Hun Yong Shin, Kwang Soon Lee
- P.027 Thermophysical properties of mixtures of kaolin with saline solutions for their use in pelotherapy**  
Rebeca Moscoso, C.P. Gómez, L.M. Mourelle, L.M. Casás, J.L. Legido
- P.028 The effect of the cation on the interactions between methyl imidazolium chloride ionic liquids and water**  
Imran Khan, Mohamed Taha, Ana M. Fernandes, Simão P. Pinho, João A.P. Coutinho
- P.029 Ternary liquid-liquid equilibria of ionic liquids + benzothiophene + heptane**  
Andrzej Marciak, Michał Włazło, Urszula Domańska
- P.030 Activity coefficients at infinite dilution and physicochemical properties for organic solutes and water in [CO<sub>2</sub>N<sub>1,1,2</sub>][FAP]**  
Andrzej Marciak, Michał Włazło
- P.031 Shale gasoline thermal conductivity: experimental data and estimates from correlations for petroleum and coal liquids**  
Oliver Järvik
- P.032 Experimental solid-liquid equilibria and heat capacity of a system for concentrating solar power thermal storage**  
David Cabaleiro, Carlos Gracia-Fernández, Jose Luis Legido, Luis Lugo
- P.033 Surface tension of ionic liquids: anion, cation and water content effects**  
Hugo F. D. Almeida, José A. Lopes-da-Silva, Mara G. Freire, João A.P. Coutinho
- P.034 Cation symmetry effect on the surface tension of bis[(trifluoromethyl)sulfonyl]imide-based ionic liquids**  
Hugo F.D. Almeida, Mara G. Freire, Ana M. Fernandes, José A. Lopes-da-Silva, Pedro Morgado, Karina Shimizu, Eduardo M.J. Filipe, José N. Canongia Lopes, Luís M.N.B.F. Santos, João A.P. Coutinho
- P.035 Vapour-liquid equilibrium for binary mixtures containing isopropyl acetate and alkanols**  
Simão P.A. Pinho, Filipa M. Casimiro, Dânia S.M. Constantino, Carla S.M. Pereira, Olga Ferreira, Alírio E. Rodrigues
- P.036 Viscosity of gaseous R404A**  
Xiaoming Zhao, Shaohua Lv, Wei Wang, Xiaopo Wang
- P.037 Determination of the vapor pressure and critical parameters of ethyl fluoride (HFC161)**  
Jing Fan, Xiaoming Zhao, Zhikai Guo

- P.038 Determination of kinetic parameters using an isothermal microcalorimeter: study of transesterification of *Pistacia Lentiscus***  
Karim Khiari, Lyes Tarabet, Khaled Loubar, Rachid Mahmoud, Mohand Tazerout
- P.039 Density and viscosity measurement for systems related to high pressure high temperature reservoirs**  
Teresa Regueira, Varun Vs, Amir S.B. Morcous, Erling H. Stenby, Wei Yan
- P.040 Rheological behavior under magnetic field up to 0.7 Tesla of propylene glycol-based Fe<sub>2</sub>O<sub>3</sub> nanofluids**  
Jesica Calvo-Bravo, David Cabaleiro, Carlos Gracia-Fernández, Manuel M. Piñeiro, Luis Lugo
- P.041 Thermodynamic study of selected monoterpenes**  
Vojtech Stejfa, Michal Fulem, Kvetoslav Ruzicka, Ctirad Cervinka
- P.042 A combined experimental and computational thermodynamic study of selected alcohols**  
Vojtech Stejfa, Michal Fulem, Kvetoslav Ruzicka
- P.043 Enthalpy of vaporization of ionic liquids precursors: 1-(n-alkyl)-imidazoles**  
Joana Vitorino, Filipe Agapito, Carlos E. S. Bernardes, Manuel E. Minas da Piedade
- P.044 Flammability limits of HFE-7200 and its binary mixtures with HFE-7000, HFE-7100 and HFE-7500**  
Ke Zhang, Kang Zhao, Shengshan Bi, Jiangtao Wu
- P.045 Carbon monoxide solubilities in crotonaldehyde using a ROLSI™ injector for analytical method**  
Hernando Guerrero-Amaya, Muhammad Saad Qureshi, Petri Uusi-Kyyny, Dominique Richon
- P.046 Solubility, viscosity and volumetric properties of sustainable systems containing ionic liquids**  
Marta S. Calado, Adriana S.H. Branco, João C.F. Diogo, João M.N.A. Fareleira, Zoran P. Visak
- P.047 Solution enthalpies and solubility of CO<sub>2</sub> in aqueous solutions for sequestration in deep aquifers**  
Barbara Liborio, Karine Ballerat-Busserolles, Jean-Yves Coxam
- P.048 Measurements of transport properties of binary mixtures under the effect of pressure**  
Ion Lizarraga, David Alonso de Mezquia, M. Mounir Bou-Ali
- P.049 Integration of biogas in the natural gas grid: thermodynamic characterization of a biogas like mixture**  
Roberto Hernández-Gómez, José J. Segovia, María C. Martín, Miguel A. Villamañán, Teresa E. Fernández-Vicente, Dolores del Campo, César R. Chamorro
- P.050 Excess partial molar enthalpies of 1-propoxypropan-2-ol in water at 298.15 K**  
Maria Luisa Calisto de Jesus Moita, Marina Reis, Ângela F. S. Santos, Isabel M. S. Lampreia
- P.051 Effect of the addition of an ionic liquid in pine seed germination and in soil microbial activity**  
J. Salgado, J. Proupín, J.J. Parajó, M. Villanueva, P. V. Verdes, J.A. Rodríguez-Añón, O. Reyes
- P.052 Isobaric heat capacity of six imidazolium and pyrrolidinium based ionic liquids**  
T. Teijeira, J. Troncoso, J. Fernández, J. Salgado
- P.053 Measurements of viscosity of the HFO refrigerants with tandem capillary tubes method**  
Akio Miyara, Keishi Kariya, Soichiro Mori, Ryo Akasaka
- P.054 Characterization of liquid range of pyridinium and choline based ionic liquids**  
J.J. Parajó, M. Villanueva, P.B. Sánchez, J. García, J. Salgado
- P.055 Ion influence on the thermal stability of imidazolium and pyrrolidinium ionic liquids**  
J.J. Parajó, J. Salgado, J. Fernández, M. Villanueva

- P.056 Solubility of methyl halides ( $\text{CH}_3\text{X}$  with  $\text{X}=\text{F, Cl, Br}$ ) in aromatic solvents**  
José M.M.V. Sousa, Isabel M.A. Fonseca
- P.057 The visualization of ice crystal formation behaviors at intracellular freezing of plant cell using high speed camera**  
Takako Ninagawa, Akemi Eguchi, Akira Narumi, Tadashi Konishi, Yukio Kawamura
- P.058 Dispersion of carbon nanotubes by ionic surfactants in binary water/organic solvent mixtures**  
Ricardo M.F. Fernandes, Stivan Gonçalves, Ricardo Mendes, Oren Regev, István Furó, Eduardo F. Marques
- P.059 Measurements of  $\text{CO}_2$  solubility in aqueous 2-HEAA and MEA+2-HEAA solutions**  
Alexandr Ostonen, Mikko Ojala, Petri Uusi-Kyyny, Ville Alopaeus
- P.060 Thermophysical properties of furan family**  
Laura Lomba, Estefania Zuriaga, Carlos Lafuente, Héctor Artigas, Beatriz Giner
- P.061 Thermotropic liquid crystal formation by double-chained lysine-based amphiphiles: isomerism and chain asymmetry effects**  
Vanessa Moura, Isabel S. Oliveira, Maria J. Araújo, Eduardo F. Marques
- P.062 Improving thermodynamic predictions for high pressure natural gas systems at low temperatures**  
Corey J. Baker, Thomas J. Hughes, Michael Johns, Kenneth N. Marsh, Eric F. May
- P.063 Diffusion coefficients of perfluorinated n-alcohols in water and heavy water: experiment and computer simulation**  
Luís F. G. Martins, Luís A.M. Pereira, José R. Ascenso, Pedro Morgado, Eduardo J.M. Filipe
- P.064 Long-term thermal stabilities of ammonium ionic liquids related to choline**  
Miguel Vilas, Josefa Salgado, María Villanueva, Marta Lorenzo, Pedro Verdía, Emilia Tojo
- P.065 Thermophysical and transport properties of ammonium-based bistriflamide ionic liquids**  
André Mão de Ferro, Patrícia M. Reis, Carlos E. S. Bernardes, Karina Shimizu, José N. C. Lopes, José M. S. S. Esperança, Luís P. N. Rebelo
- P.066 Density and viscosity of pyridinium and choline based ionic liquids as potential absorbents for water**  
Pablo B. Sánchez, Josefa Salgado, Josefa García
- P.067 Temperature and pH effects on the surface monolayer and bulk properties of serine-based surfactants**  
Francisco Blanco, Sandra G. Silva, M. Luísa C. do Vale, Carlos Pereira, Eduardo F. Marques
- P.068 PVT study for the mixtures diethyl carbonate + n-alkane**  
A. Gayol, J.L. Legido, R.E. Martini, A.E. Andreatta, L.M. Casás
- P.069 COSMO-RS prediction of ionic liquids' wettability: the impact of hydrogen-bonding on their contact angles**  
Matheus M. Pereira, Filipa Lourosa Sousa, Nuno João Silva, João A. P. Coutinho, Mara G. Freire
- P.070 Correlation of biodiesel densities at pressures up to 200 MPa**  
Jean-Luc Daridon, Matthieu Habrioux, Samuel V.D. Freitas, João A.P. Coutinho
- P.071 Experimental and predicted excess molar properties of ketone + chloroalkane**  
Ouahiba Tafat-Igoudjilene, Hadda Daoudi, Ahmed Ait-Kaci, Jacques Jose
- P.072 Analyses of internet resources containing thermophysical properties of ionic liquids**  
Evgeny Ustyuzhanin, Valery Ochkov , Alexander Khusnulin
- P.073 Scaling models of thermodynamic properties at the saturation for DEE**  
Evgeny Ustyuzhanin, Vladimir Rykov, Serge Rykov, Petr Popov
- P.074 Analysis of heat and mass transfer in a rotary total energy wheel**  
Koutama Amara, Ridha Chouikh, AmenAllah Guizani

- P.075 Interdigitation and packing effects on the thermal phase behavior of ion-paired surfactants with high chain length mismatch**  
Marta R. A. Matos, Bruno F. B. Silva, Eduardo F. Marques
- P.076 Correlation of the critical curve for hydrogen binary systems with PR EOS and experimental observation of the phase change**  
Naoya Sakoda, Jiang Shiheng, Masamichi Kohno, Yasuyuki Takata
- P.077 A comparative study of scaling models for thermodynamic properties along the coexistence curve liquid-gas**  
Evgeny Ustyuzhanin, Vladimir Vorob'ev, Evgeny Apfelbaum
- P.078 Scaling models of thermodynamic properties at the saturation for HFO-1234YF**  
Evgeny Ustyuzhanin, Vladimir Rykov, Serge Rykov, Petr Popov
- P.079 Physicochemical properties and green chemistry**  
Laura Lomba, Esther Sarasa, Eduardo Perales, Estefanía Zuriaga, Beatriz Giner
- P.080 Relation of the apparent viscosity of heavy oils' emulsions and their morphological structure**  
José Guadarrama-Cetina, Otto Hahn-Herrera, Ulises Martínez-Cortés, Sergio E. Quiñones-Cisneros
- P.081 Evaluation and prediction of the enthalpy of vaporization for room-temperature ionic liquids**  
Eugene Paulechka, Alena S. Firaha, Gennady J. Kabo, Dzmitry H. Zaitsau
- P.082 Testing of accuracy in experimental enthalpies of formation of high-nitrogen compounds by quantum chemical calculations**  
Marina A. Suntsova, Olga V. Dorofeeva
- P.083 Energetic and structural influence of methoxy and hydroxyl functional groups on naphthaldehyde**  
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- P.084 Thermal properties of rock investigated by model for pulse transient technique derived for cylindrical form of specimen**  
Vlastimil Boháč, Peter Dieška, Viliam Vretenár, Danica Fidrková
- P.085 Kinetics analysis of the illite dehydroxylation using the thermogravimetry and thermodilatometry**  
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- P.086 Critical behavior of magnetic transitions in KAF<sub>3</sub> (A=Co, Ni) using a photopyroelectric calorimeter**  
Alberto Oleaga, Agustín Salazar, Danuta Skrzypek
- P.087 Extraction of volatile fatty acids using nature based ionic liquids**  
Marisa A. A. Rocha, Adriaan van den Bruinhorst, Wolffram Schröer, Bernd Rathke, Maaike C. Kroon
- P.088 Liquid–liquid phase behavior of solutions of 1,3-diethylimidazolium bis(trifluoromethylsulfonyl)amide with n-alkyl-alcohols**  
Marisa A. A. Rocha, Wolffram Schröer, Bernd Rathke
- P.089 Slow relaxations studies in the biodegradable semi-crystalline polymer: poly(butylene succinate)**  
Joaquim J. Moura-Ramos, Hermínio P. Diogo
- P.090 Assessment of thermal probe technique for determination of effective conductivity of building insulation materials**  
Bastien Ruet, Humaish Hussein, Marmoret Laurent, Béji Hassen
- P.091 Surface tension of semifluorinated alkanes and of mixtures of fluorinated and hydrogenated alcohols**  
Miguel Teixeira, Miguel Almeida, Pedro Morgado, Eduardo J.M. Filipe
- P.092 Solubility of water in alkanes: experimental, simulation and SAFT modeling**  
Pedro Morgado, Pedro Duarte, Rita Gomes, Amparo Galindo, Eduardo J.M. Filipe

- P.093 Heat of solvation of linear alcohols in ionic liquid of the [C<sub>N-1</sub>C<sub>1</sub>im][NTf<sub>2</sub>] series**  
Marisa A.A. Rocha, Arijit Bhattacharjee, João A.P. Coutinho, Margarida Bastos, Luís M.N.B.F. Santos
- P.094 Complex structure of ionic liquids. Molecular dynamics studies with different cation–anion combinations**  
Karina Shimizu, Adilson A. Freitas, Carlos E.S. Bernardes, José N. Canongia Lopes
- P.095 Insights on the nanostructuration of ionic liquids by infrared spectroscopy**  
Inês C.M. Vaz, Marisa A.A. Rocha, Luís M.N.B.F. Santos
- P.096 Design, construction and test of a new Ramsay-Young ebulliometer: volatility of protic ionic liquids**  
Inês C.M. Vaz, Ana S.M.C. Rodrigues, Erlin Sapei, Luís M.N.B.F. Santos
- P.097 Structure and energetics of the n- alkylpyridinium bromide ionic liquids homologous series**  
Ana I.M.C. Lobo Ferreira, José N. Canongia Lopes, Luís P.N. Rebelo, Luís M.N.B.F. Santos
- P.098 The anion effect on the thermal behavior and heat capacities of benzyl imidazolium ionic liquids**  
Paulo B.P. Serra, Filipe M.S. Ribeiro, Marisa A.A. Rocha, Michal Fulem, Květoslav Růžička, Luís M.N.B.F. Santos
- P.099 Isomerization effect on the volatility of persistent organic pollutants**  
Filipe M.S. Ribeiro, Ana R.R.P. Almeida, Manuel J.S. Monte, Luís M.N.B.F. Santos
- P.100 N- to iso-alkyl isomerization effect on the thermophysical properties of ionic liquids**  
Ana S.M.C. Rodrigues, Hugo F.D. Almeida, Mara G. Freire, João A.P. Coutinho, Luís M.N.B.F. Santos
- P.101 Thermophysical properties of imidazolium-based ionic liquids: isomerization study**  
Ana S.M.C. Rodrigues, Marisa A.A. Rocha, Hugo F.D. Almeida, Catarina M.S.S. Neves, Mara G. Freire, João A.P. Coutinho, Luís M.N.B.F. Santos
- P.102 Isomerization effect on the volatility of alkyl pyridinium NTf<sub>2</sub> ionic Liquids**  
Ana S.M.C. Rodrigues, Luís M.N.B.F. Santos
- P.103 Understanding the solid-liquid equilibrium and heat capacity trend in the alkylimidazolium PF<sub>6</sub> series**  
Paulo B.P. Serra, Filipe M.S. Ribeiro, Marisa A.A. Rocha, Michal Fulem, Květoslav Růžička, Luís M.N.B.F. Santos
- P.104 Electron transport materials for OLEDs: understanding the crystal and molecular stability of the tris-(8-hydroxyquinolines) of Al, Ga and In**  
José C.S. Costa, Carlos F.R.A.C. Lima, Luís M.N.B.F. Santos
- P.105 OLEDs: Thin films of organic semiconductor materials (OSCs)**  
Ricardo F.F. Carvalho, Ricardo J.S. Taveira, José C.S. Costa, Luís M.N.B.F. Santos
- P.106 Chain length dependence of the thermodynamic properties of linear alkanes and their derivatives**  
José C.S. Costa, Luís M.N.B.F. Santos
- P.107 Vacuum deposition of thin films for organic electronics**  
José C.S. Costa, Luís M.N.B.F. Santos
- P.108 Heat capacities and phase behavior of cycloalcohols**  
Paulo B.P. Serra, Květoslav Růžička, Michal Fulem, Ivan Krakovský
- P.109 The effect of methyl stearate fraction in the Cloud Point of Biodiesel/Diesel blends**  
Ana R.F. Silva, Cristiana I.C. Silva, Hélder S. Almeida, Jorge C. Ribeiro, Luís M.N.B.F. Santos
- P.110 A structural and energetic approach for understanding the semiconducting properties of rubrene**  
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- P.111 Thermal properties of silicone matrices loaded with carbon nanofibers**  
C. Vales-Pinzón, A. Vega-Flick, N. Pech-May, J.J. Alvarado-Gil, R. Medina-Esquível, M. Zambrano-Arjona J. Mendez-Gamboa

- P.112 Simulation of DSC curves in wax precipitation evalutation**  
Felipe Pereira Fleming, Jérôme Pauly, Jean-Luc Daridon
- P.113 Wax distribution in liquid-liquid equilibrium systems**  
Felipe Pereira Fleming, Jérôme Pauly, Jean-Luc Daridon
- P.114 First spectral emissivity study of a solar selective coating in the 150-600 °C range**  
Iñigo Setién-Fernández, Telmo Echániz, Luis González-Fernández, Raúl B. Pérez-Sáez, Eva Céspedes, José A. Sánchez-García, Leopoldo Álvarez-Fraga, Ramón E. Galindo, José M. Albella, Carlos Prieto, Manuel J. Tello
- P.115 Thermal conductivity of dry metal oxide powders**  
Jorge Nimo, David Cabaleiro, Jose Luis Legido, Luis Lugo
- P.116 Tensioactive ionic liquids: synthesis and characterization**  
Miguel Vilas, Tânia E. Sintra, Sónia P.M. Ventura, Luis M. N. B. F. Santos, Ana I.M.C. Lobo Ferreira, Fernando Gonçalves, Emilia Tojo, João A.P. Coutinho
- P.117 Measurement of spectral radiative properties of piezoelectric and electrocaloric materials**  
Jacques Hameury, Timothy Stevenson, Maksim Shpak, Peter Woolliams, Paul Weaver, Tatiana Correia, Petr Klapetek, Thorsten Schmitz-Kempen, Bruno Hay
- P.118 Chromogenic properties of MoO<sub>3</sub> thin films deposited by reactive sputtering**  
Sergio A. Tomás, Michael Morales-Luna, Vinicius Cruz-SanMartín, Gabriel A. Ayala-Sánchez, Miguel A. Arvizu
- P.119 Photocatalytic properties of TiO<sub>2</sub>–ZnO thin films doped with Ag**  
Sergio A. Tomás, Mario Pérez-González
- P.120 Solubility and pKa determination of pharmaceuticals in water, and alcohols**  
Aneta Pobudkowska, Andrzej Marciak, Maciej A. Wiatrowski
- P.121 Low-temperature heat capacity and polymorphism of pure and nanoconfined 1-butyl-3-methylimidazolium hexafluorophosphate**  
Tatiana Levitskaya, Eugene Paulechka, Andrey V. Blokhin
- P.122 Thermal and optical properties of microcellular polystyrene foams**  
Andra Nistor, Jiri Martan, Vladislav Lang, Adam Rygl, Petra Honnerova, Juraj Kosek
- P.123 Determination of moisture diffusivity in the porous materials /volcanic tuffs/ using diffusion model**  
Danica Fidríková, Vlastimil Bohac, Viliam Vretenar, Ludovit Kubicar, Peter Dieška
- P.124 Thermal conductivity measurement of a Sb<sub>2</sub>Te<sub>3</sub> phase change nanowire**  
Abdelhak Saci, Jean-Luc Battaglia, Andrzej Kusiak, Indrayush De, Roberto Fallica, Massimo Longo
- P.125 Thermal expansion of Zirlo**  
Kweon Ho Kang, Min Ku Jeon, Chang Hwa Lee, Geun Il Park
- P.126 Thermal diffusivity investigation of FeNiX (X=35,39,48 AND 60) alloys using the modified pulse method**  
Janusz Terpiłowski, Rafał Rudzki, Robert Szczepaniak, Grzegorz Woroniak
- P.127 Thermodynamic and conformational studies of proline stereoisomers**  
Ana Filipa L.O.M. Santos, Rafael Notario, Manuel A.V. Ribeiro da Silva
- P.128 Vapour pressures of nicotinamide and n,n-dimethylnicotinamide**  
Ana R.R.P. Almeida, Manuel J.S. Monte
- P.129 The effect of the halogen atom on the volatility of 2-halofluorene derivatives**  
Juliana A.S.A. Oliveira, Manuel J.S. Monte, Maria D.M.C. Ribeiro da Silva
- P.130 Experimental and computational insights on the thermochemistry of 1-ethyl-2-r-indole derivatives (r = methyl, phenyl)**  
Tânia M.T. Carvalho, Luísa M.P.F. Amaral, Victor M.F. Morais, Maria D.M.C. Ribeiro da Silva

- P.131 Phase equilibrium for carbon dioxide clathrate hydrate at the temperatures from 222.7 K to 247.4 K**  
Hironori D. Nagashima, Ryo Ohmura
- P.132 Measurements of hydrate phase equilibrium for water + carbon dioxide + nitric oxide system**  
Won Gu Rho, Sun Hyung Kim, Sung Shin Kang, Jeong Won Kang and Chul Soo Lee
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