

PROGRAMME

Wednesday, 19 July	
09h00 – 10h30	Registration
10h30 – 11h30	Opening Ceremony
11h30 – 12h30	Plenary Lecture 1
12h30 – 14h00	Lunch
14h00 – 15h00	Plenary Lecture 2
15h00 – 15h45	Key Lecture 1
15h45 – 16h15	Coffee Break
16h15 – 18h30	Oral Communications
19h00 – 20h30	Welcome Reception
Thursday, 20 July	
09h00 – 10h00	Plenary Lecture 3
10h00 – 10h45	Key Lecture 2
10h45 – 11h15	Coffee Break
11h15 – 12h45	Oral Communications
12h45 – 14h00	Lunch
14h00 – 15h00	Plenary Lecture 4
15h00 – 15h45	Key Lecture 3
15h45 – 16h15	Coffee Break
16h15 – 17h30	Oral Communications
17h30 – 18h30	Posters Session
20h00	Conference Dinner
Friday, 21 July	
09h00 – 09h45	Key Lecture 4
09h45 – 10h30	Key Lecture 5
10h30 – 11h00	Coffee Break
11h00 – 12h15	Oral Communications
12h15 – 13h15	Plenary Lecture 5
13h15 – 13h45	Closing Ceremony / Farewell Port Wine

WEDNESDAY JULY 19

09h00 – 10h30 REGISTRATION

10h30 – 11h30 Room A OPENING CEREMONY

Room A Chair: Stefano Vecchio Ciprioti

11h30 – 12h30 PL1 **Mechanisms and physico-geometrical modeling for kinetic description of solid-gas reactions**
Loïc Favergeon

12h30 – 14h00 LUNCH

Room A Chair: Chiriac Rodica

14h00 – 15h00 PL2 **POSS, a very thermally stable nanoparticle: state of the art and future developments**
Ignazio Blanco

15h00 – 15h45 KL1 **Solid-state of active pharmaceutical ingredients: The role of thermal analysis**
Ricardo Castro

15h45 – 16h15 COFFEE BREAK

PARALLEL SESSIONS

Room A Chairs: Matko Erceg and Ana Luís Silva

- 16h15 – 16h30 O.A1 **A physical-chemical study on oil-protein mixtures used as paint binders**
Giulia Caroti, Alessia Cipolli, Silvia Pizzimenti, Riccardo Ducoli, Ophélie Ranquet, Norbert Willenbacher, Patrick Dietemann, Luca Bernazzani, Celia Duce, Ilaria Bonaduce
- 16h30 – 16h45 O.A2 **Measurement of sublimation and vaporization enthalpies of two aza crown ethers and two cryptands by isothermal thermogravimetry methodology**
Daniel Esparza, Aaron Rojas
- 16h45 – 17h00 O.A4 **Quantification of π -electron correlation in polycyclic aromatic hydrocarbons**
Carlos F. R. A. C. Lima, Nuno A. S. Dias, Marco A. L. Lima, Ana L. M. Oliveira, Maria L. Nogueira, André Melo, Luís M. N. B. F. Santos
- 17h00 – 17h15 O.A7 **Study of the kinetics and thermodynamics governing O_3 dissolution in concentrated nitric acid**
Zyad Ouled Alla, Loïc Marchetti, Philippe Moisy
- 17h15 – 17h30 O.A8 **Evaluation of thermal and physicochemical properties for type-II Deep Eutectic Solvents**
Chiara Pelosi, Celia Duce, José Gonzalez-Rivera, Maria Rosaria Tinè, Gianluca Ciancaleoni, Luca Bernazzani
- 17h30 – 17h45 O.A10 **The rapid method to evaluate the thermooxidative stability of organic materials using DSC**
Anna Vykydalová, Zuzana Cibulková, Tibor Dubaj, Peter Šimon

17h45 – 18h00	O.D1 A comparative study of recycled HDPE and PESu composites enhanced with hemp fibers used as alternative WPCs <u>Iouliana Chrysafi</u> , Eleftheria Xanthopoulou, Alexandra Zamboulis, Dimitrios N. Bikiaris
18h00 – 18h15	O.D2 Thermo-mechanical analysis of fully-recyclable bio-based epoxy latent systems for green composites manufacturing and their recycling <u>Lorena Saitta</u> , Alberta Latteri, Ignazio Blanco, Claudio Tosto, Giuliana Rizzo, Gianluca Cicala
18h15 – 18h30	O.D6 Poly(alkylene vanillates): A novel series of sustainable polyesters based on vanillic acid <u>Eleftheria Xanthopoulou</u> , Alexandra Zamboulis, Zoi Terzopoulou, Dimitrios N. Bikiaris, Georgios Z. Papageorgiou

Room B Chairs: Bénédicte Prelot and Vera Freitas

16h15 – 16h30	O.B1 Thermal degradation kinetics of virgin and recycled polymers and polymer blends using the random chain-scission model <u>Dimitris S. Achilias</u> , Maria Paraskevi Belioka, Mohammad Nahid Siddiqui, Halim Hamid Redhwi
16h30 – 16h45	O.B2 Study of UO₂ oxidation at high temperature under an Ar–O₂ atmosphere <u>Priscilla Berenguer-Besnard</u> , Laetitia Vieille, Loïc Favergéon, Loïc Marchetti, Philippe Martin
16h45 – 17h00	O.B3 Kinetic analysis of the thermal decomposition of BaCO₃ in YBCO precursor films <u>Sihem Zaidi</u> , Anna Planella, Genís Riera-Agüera, Daniel Sánchez-Rodríguez, Lavinia Saltarelli, <u>Jordi Farjas</u> , Pere Roura-Grabulosa, X. Obradors, T. Puig
17h00 – 17h15	O.B4 Crystallization kinetics of polyethylene: An application of the NPK method Frida Monzón, M. Dolores Rovira, Julià Sempere, <u>Rosa Nomen</u>
17h15 – 17h30	O.B5 The use of TGA to study the degradation of polymers <u>Prakhar Pouranick</u> , Robrecht René Verhelle, Guy Van Assche, Joost Brancart
17h30 – 17h45	O.C4 Dissecting the effects of low-molecular-weight heparins on antithrombin III thermodynamic stability Francesca Saitta, Juri Masuri, Marco Signorelli, Sabrina Bertini, Antonella Bisio, Dimitrios Fessas
17h45 – 18h00	O.C1 Unambiguous identification of different API crystalline phases: thermal analysis to the rescue - two case studies <u>João A. Baptista</u> , Mário T. S. Rosado, Ricardo A. E. Castro, João Canotilho, Elvira Fantechi, Laura Chelazzi, Samuele Ciattini, M. Ermelinda S. Eusébio
18h00 – 18h15	O.C7 Glassy dynamics and crystallization kinetics of molecular pharmaceuticals <u>Daniele Sonaglioni</u> , Elpidio Tombari, Simone Capaccioli
18h15 – 18h30	O.C6 Effects of seed germination on cowpea β-vignin native structure: a calorimetric and thermodynamic investigation <u>Francesca Saitta</u> , Stefano De Benedetti, Giuditta C. Heinzl, Alessio Scarafoni, Dimitrios Fessas

19h00 – 20h30 WELCOME RECEPTION

THURSDAY JULY 20

Room A Chair: Maria Ermelinda Eusébio

- 09h00 – 10h00 **PL3 Calorimetry: a powerful methodology for studying the stability of G-quadruplexes and their interaction with anticancer drugs**
Concetta Giancola

- 10h00 – 10h45 **KL2 Implementation of spark discharge methodology into fast scanning calorimetry for the case of nanoscale homogeneous alloy materials**
Vilko Mandić, Floren Radovanović-Perić

10h45 – 11h15 COFFEE BREAK

PARALLEL SESSIONS

Room A Chairs: Joan Josep Suñol and Manuel João Monte

- 11h15 – 11h30 **O.E1 HNT based geopolymers incorporating wax microparticles as sustainable building materials with coating applications**
Martina M. Calvino, Giuseppe Cavallaro, Lorenzo Lisuzzo, Giuseppe Lazzara, Stefana Milioto
- 11h30 – 11h45 **O.E2 Characterization of yarns from a Flemish tapestry of the XVIth century and a new Keratin/HNT protocol for the conservation of artwork**
Maria Rita Caruso, Giulia D'Agostino, Lorenzo Lisuzzo, Giuseppe Cavallaro, Stefana Milioto, Giuseppe Lazzara
- 11h45 – 12h00 **O.E3 Kinetic study of the curing process of Perovskite-photocurable polymer based nanocomposite for scintillators**
Amal C. Chekkallur, Mario Calora, Antonella Giuri, Aurora Rizzo, Anna Paola Caricato, Alfonszo Maffezzoli, Carola E. Corcione
- 12h00 – 12h15 **O.E4 Hybrid organic-inorganic systems via the sol-gel route: Thermal, spectroscopic, and biological properties**
Antonio D'Angelo, Veronica Viola, Alessandro Latini, Sergio Bruttì, Severina Pacifico, Stefano Vecchio Cipriotti, Michelina Catauro
- 12h15 – 12h30 **O.E5 Improvement and implementation of pulse heating technique for the measurement of heat capacity of MoSe₂ nanoflakes**
Hugo Gómez Torres, Sebin Varguese, Klaas-Jan Tielrooij, Aitor Lopeandía Fernández, Javier Rodríguez Viejo
- 12h30 – 12h45 **O.E6 Thermodynamic study of alkylsilane and alkylsiloxane-based ionic liquids**
Rodrigo M. A. Silva, Hadrián Montes-Campos, Ana I. M. C. Lobo Ferreira, Eduards Bakis, Luís M. N. B. F. Santos

Room B Chairs: Rosaria Tiné and Cristian Rodríguez-Tinoco

- 11h15 – 11h30 **O.C5 On the thermodynamics of folding of an i-motif DNA structure**
Bruno Pagano
- 11h30 – 11h45 **O.C3 Thermal analysis as a tool to prospect novel nimesulide dual-drug solid forms**
Amanda C. de Almeida, Patrícia O. Ferreira, João Canotilho, Ricardo A. E. Castro, M. Ermelinda S. Eusébio, Flávio J. Caires
- 11h45 – 12h00 **O.C2 Physico-chemical studies of inclusion complex between natural products and cyclodextrins**
Federica D'Aria, Marco Biondi, Laura Mayol, Concetta Giancola

- 12h00 – 12h15 O.D3 **Thermal stability of an aromatic disulfide containing epoxy vitrimer**
D. Sanchez-Rodríguez, S. Zaidi, Y. Jahani, P. Maimi, J. Farjas, J. Costa, Alaitz Ruiz de Luzuriaga, Alaitz Rekondo
- 12h15 – 12h30 O.D4 **Thermomechanical properties of bio-based epoxy resin and daylight curable blends for 3d printing by Liquid Crystal Display (LCD)**
Claudio Tosto, Lorena Saitta, Giuliana Rizzo, Ignazio Blanco, Gianluca Cicala
- 12h30 – 12h45 O.D5 **Using thermal analysis for the development and characterization of novel reversible polymer networks for use in photovoltaic modules**
J. Mangialetto, D. Ehrhardt, K. Van Durme, B. Van Mele, N. Van den Brande

12h45 – 14h00 LUNCH

Room A Chair: Ignazio Blanco

- 14h00 – 15h00 PL4 **Thermal analysis of solid-state transformations: metallic alloys and compounds**
Joan-Josep Suñol
- 15h00 – 15h45 KL3 **Molecular recognition by nano-containers and aggregates: determining species and driving forces in solution**
Carmelo Sgarlata

15h45 – 16h15 COFFEE BREAK

PARALLEL SESSIONS

Room A Chairs: Konstantinos Chrissafis and Ana Rita Almeida

- 16h15 – 16h30 O.B6 **Kinetic parameters of the decomposition process of commonly used explosive compositions based on secondary explosives**
Piotr Prasuła, Magdalena Brzeziak, Magdalena Czerwińska, Piotr Cieślak
- 16h30 – 16h45 O.B7 **Integration of the Sestak-Berggren conversion function and perspectives on new generalized kinetic models for heterogeneous processes**
Ionel Roventă, Luis A. Perez-Maqueda, Andrei Rotaru
- 16h45 – 17h00 O.B8 **Analyzing protein gelation: Insights into thermal behavior and kinetics**
Tomasso Palermito, Ruben Mercade-Prieto, Rosa Nomen, Julià Sempere
- 17h00 – 17h15 O.B9 **Features of the general rate equation and the consequences**
Peter Šimon, Tibor Dubaj, Zuzana Cibulková
- 17h15 – 17h30 O.B10 **Investigation of crystallization kinetics in PBSu/Biochar composites through isoconversional and model fitting approaches**
Evangelia Tarani, Katerina Papadopoulou, Ondřej Mašek, Dimitrios N. Bikaris, Konstantinos Chrissafis

Room B Chairs: Dimitrios Fessas and Ricardo Castro

- 16h15 – 16h30 O.E7 **Microstructure and high sensitive thermal analysis in Ni₅₅Fe₁₉Ga₂₆: influence of martensitic structure in the thermal avalanches**
A. Vidal-Crespo, J.M. Martín-Olalla, A.F. Manchón-Gordón, F.J. Romero-Landa, J.J. Ipus, M.C. Gallardo, J. S. Blázquez, C.F. Conde
- 16h30 – 16h45 O.G1 **Evolved gas analysis. What about quantification? Focus on the couplings between thermogravimetry and gas chromatography mass spectrometry**
Rodica Chiriac, François Toche

- 16h45 – 17h00 O.G2 **Dielectric relaxation spectroscopy study of the evolving glass transition during cure of a reversible network based on Diels-Alder cycloaddition**
Jessica Mangialetto, Bruno Van Mele, Van den Brande Niko,
Michael Wübbenhorst
- 17h00 – 17h15 O.G3 **The new concept of DSC 300 Caliris® - Ideal for phase transitions and purity**
João Carvalheira
- 17h15 – 17h30 O.G4 **An advanced heat flux DSC operated in the power compensation mode**
Laurent Zoppi

17h30 – 18h30 POSTERS SESSION

20h00 CONFERENCE DINNER

FRIDAY JULY 21

Room A Chair: Margarida Bastos

- 09h00 – 09h45 KL4 **Synthesis, structure, energetics and conformational dynamics of polyphenyl polycyclic aromatic hydrocarbons**
Robert A. Pascal, Jr., Joel T. Mague, Yonglong Xiao, Ha Thuy Thanh Nguyen,
Yuchen Du, Carlos F. R. A. C. Lima, Luís M. N. B. F. Santos
- 09h45 – 10h30 KL5 **New methods for an old problem: fast-scanning nanocalorimetry for a microscopic description of glass transformation**
C. Rodríguez-Tinoco, A. Vila-Costa, M. Gonzalez-Silveira, J. Rodriguez-Viejo

10h30 – 11h00 COFFEE BREAK

PARALLEL SESSIONS

Room A Chairs: Julià Sempere and Bruno Pagano

- 11h00 – 11h15 O.A5 **Simulation of crystalline morphology from a simple calorimetric crystallization curve under isothermal or non-isothermal conditions**
Lilla Bubenkó, János Molnár, Aliz Lelik, Örs Sepsi, Alfréd Menyhárd
- 11h15 – 11h30 O.A3 **Thermochemistry and reactivity of aminothiadiazoles**
Ana C. M. O. Lima, Ana L. R. Silva, Maria D. M. C. Ribeiro da Silva
- 11h30 – 11h45 O.A9 **Measurement of sublimation enthalpies of organic compounds using isothermal thermogravimetry**
Marco Antonio Treviño Kauffmann, Daniel Esparza Rivera, Aarón Rojas Aguilar
- 11h45 – 12h00 O.A11 **Relationship between phase behavior and thermal history in ionic liquid [C₄mim][PF₆]**
K. Watanabe, H. Seo, A. Goto(Kojima), N. Takuma, Y. Yamada, Y. Sanada,
Y. Katsumoto
- 12h00 – 12h15 O.A6 **Phase behaviour of binary mixtures of imidazolium ionic liquids: anion and alkyl chain effects**
Carlos F. P. Miranda, Rodrigo M. A. Silva, Ana I. M. C. Lobo Ferreira,
Luís M. N. B. F. Santos

Room B Chairs: Peter Šimon and Agostinha Matos

- 11h00 – 11h15 O.F1 **Thermophysical analysis of phenanthroline derivatives: A multitechnique approach**
José M. Silva Ferraz, Lorenza Romagnoli, Bruno Brunetti, Andrea Ciccioli, Stefano Vecchio Cipriotti, Vera L.S. Freitas, Maria D.M.C. Ribeiro da Silva
- 11h15 – 11h30 O.F2 **On the use of TGA for the study of degradation of thermal energy storage materials: analysis of the influence of evaporation and mass sample size**
Eukene García-Ocina, Gonzalo Diarce
- 11h30 – 11h45 O.F3 **Study of environmental mobility-related properties of three chlorinated pesticides**
Bruno D.A. Pinheiro, Ana R.R.P. Almeida, Manuel J.S. Monte
- 11h45 – 12h00 O.F4 **Thermal decomposition of formamidinium tin triiodide perovskite investigated by thermal analysis and effusion techniques**
Lorenza Romagnoli, Bruno Brunetti, Andrea Ciccioli, Martina Pesci, Stefano Vecchio Cipriotti, Alessandro Latini
- 12h00 – 12h15 O.F5 **Influence of nanoconfinement on phase transitions of ionic liquids for smart energy storage devices**
A. Santiago, P. Vallet, J. M. Antelo, L. A. Adrio, P. Barreiro, M. Villanueva, L.M. Varela, J.J. Parajó, J. Salgado

Room A Chair: Maria Ribeiro da Silva

- 12h15 – 13h15 PL5 **Thermodynamic and transport properties of ionic liquids**
Luís M. N. B. F. Santos

13h15 CLOSING CEREMONY / FAREWELL PORT WINE

LIST OF COMMUNICATIONS

PLENARY LECTURES

- PL1** Mechanisms and physico-geometrical modeling for kinetic description of solid-gas reactions
Loïc Favergeon
- PL2** POSS, a very thermally stable nanoparticle: state of the art and future developments
Ignazio Blanco
- PL3** Calorimetry: a powerful methodology for studying the stability of G-quadruplexes and their interaction with anticancer drugs
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- PL4** Thermal analysis of solid-state transformations: metallic alloys and compounds
Joan-Josep Suñol
- PL5** Thermodynamic and transport properties of ionic liquids
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KEY LECTURES

- KL1** Solid-state of active pharmaceutical ingredients: The role of thermal analysis
Ricardo Castro
- KL2** Implementation of spark discharge methodology into fast scanning calorimetry for the case of nanoscale homogeneous alloy materials
Vilko Mandić, Floren Radovanović-Perić
- KL3** Molecular recognition by nano-containers and aggregates: determining species and driving forces in solution
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- KL4** Synthesis, structure, energetics and conformational dynamics of polyphenyl polycyclic aromatic hydrocarbons
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ORAL COMMUNICATIONS

- O.A1 A physical-chemical study on oil-protein mixtures used as paint binders**
Giulia Caroti, Alessia Cipolli, Silvia Pizzimenti, Riccardo Ducoli, Ophélie Ranquet, Norbert Willenbacher, Patrick Dietemann, Luca Bernazzani, Celia Duce, Ilaria Bonaduce
- O.A2 Measurement of sublimation and vaporization enthalpies of two aza crown ethers and two cryptands by isothermal thermogravimetry methodology**
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Lilla Bubenkó, János Molnár, Aliz Lelik, Örs Sepsi, Alfréd Menyhárd
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Dimitris S. Achilias, Maria Paraskevi Belioka, Mohammad Nahid Siddiqui, Halim Hamid Redhwii
- O.B2 Study of UO₂ oxidation at high temperature under an Ar–O₂ atmosphere**
Priscilla Berenguer-Besnard, Laetitia Vieille, Loïc Favergeon, Loïc Marchetti, Philippe Martin

- O.B3 Kinetic analysis of the thermal decomposition of BaCO₃ in YBCO precursor films**
Sihem Zaidi, Anna Planella, Genís Riera-Agüera, Daniel Sánchez-Rodríguez, Lavinia Saltarelli, Jordi Farjas, Pere Roura-Grabulosa, X. Obradors, T. Puig
- O.B4 Crystallization kinetics of polyethylene: An application of the NPK method**
Frida Monzón, M. Dolores Rovira, Julià Sempere, Rosa Nomen
- O.B5 The use of TGA to study the degradation of polymers**
Prakhar Pouranick, Robrecht René Verhelle, Guy Van Assche, Joost Brancart
- O.B6 Kinetic parameters of the decomposition process of commonly used explosive compositions based on secondary explosives**
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Bruno D.A. Pinheiro, Ana R.R.P. Almeida, Manuel J.S. Monte
- O.F4 Thermal decomposition of formamidinium tin triiodide perovskite investigated by thermal analysis and effusion techniques**
Lorenza Romagnoli, Bruno Brunetti, Andrea Ciccioli, Martina Pesci, Stefano Vecchio Cipriotti, Alessandro Latini
- O.F5 Influence of nanoconfinement on phase transitions of ionic liquids for smart energy storage devices**
A. Santiago, P. Vallet, J. M. Antelo, L. A. Adrio, P. Barreiro, M. Villanueva, L.M. Varela, J.J. Parajó, J. Salgado
- O.G1 Evolved gas analysis. What about quantification? Focus on the couplings between thermogravimetry and gas chromatography mass spectrometry**
Rodica Chiriac, François Toche
- O.G2 Dielectric relaxation spectroscopy study of the evolving glass transition during cure of a reversible network based on Diels-Alder cycloaddition**
Jessica Mangialetto, Bruno Van Mele, Van den Brande Niko, Michael Wübbenhorst
- O.G3 The new concept of DSC 300 Caliris® - Ideal for phase transitions and purity**
João Carvalheira
- O.G4 An advanced heat flux DSC operated in the power compensation mode**
Laurent Zoppi

POSTERS

- P.A1 Thermochemistry of 1-H-1,2,4-triazole amino derivatives**
Luísa M.P.F. Amaral, Tânia M.T. Carvalho, Maria D.M.C. Ribeiro da Silva
- P.A2 Electron correlation in aromatic molecules: Analysis of conjugation in naphthalene and fluorene derivatives**
Nuno A. S. Dias, Marco A. L. Lima, Ana L. M. Oliveira, Luís M. N. B. F. Santos, Carlos F. R. A. C. Lima
- P.A3 Study of the association of aza crown ethers with some metal ions and ligands**
Daniel Esparza, Aaron Rojas
- P.A4 Thermal evolution of NiAl-citrate LDH in air and inert atmosphere: a comparison**
M. Fortunato, M. Piccinni, A.M. Cardinale, D. Colombara, F. Bonaccorso
- P.A5 Thermochemical study of two long hydrocarbon-chain lactones**
Gastón P. León, Ana L. R. Silva, Maria D. M. C. Ribeiro da Silva
- P.B1 Thermal stability investigation and curing kinetic analysis of a bio-derived epoxy adhesive**
Christina Kyriakou-Tziamtzi, Antonios Vlachopoulos, Dimitrios N. Bikiaris,
Konstantinos Chrissafis
- P.B2 Influence of irradiation on the non-isothermal decomposition and kinetics of the polymeric backsheets of photovoltaic (PV) modules**
Matko Erceg, Antonia Omazić, Gernot Oreski
- P.B3 Kinetic investigation of oxidative thermal decomposition of levonorgestrel**
Amalia Ridichie, Adriana Ledetă, Francisc Peter, Ionuț Ledetă
- P.B4 Thermal stability and decomposition of olmesartan medoxomil**
Bianca Baul, Mindora Andor, Dana Emilia Man, Valentina Buda, Adriana Ledetă, Denisa Cîrcioban, Sebastian Simu, Carmen Tomoroga, Francisc Peter, Ionuț Ledetă
- P.B5 Kinetic analysis of non-isothermal decomposition of gestrinone**
Amalia Ridichie, Adriana Ledetă, Gerlinde Rusu, Francisc Peter, Ionuț Ledetă
- P.C1 DSC and EPR investigations on the effects of bis-(3-hydroxy-4-pyridinonato) zinc (II) complexes on DMPC liposomes**
Luísa M.P.F. Amaral, Maria Rangel
- P.C2 Physicochemical characterization of polymeric membranes with Riluzole for amyotrophic lateral sclerosis treatment**
Ionela – Amalia Bradu, Gabriela Vlase, Mihaela Budiu, Alexandru Pahomi, Titus Vlase
- P.C3 Thermal behavior of polymer-based systems containing antibiotic and anesthetic with medical use**
Mihaela Budiu, Gabriela Vlase, Ionela – Amalia Bradu, Alexandru Pahomi, Titus Vlase

- P.C4 Preformulation studies for membranes with acetaminophen, propyphenazone and caffeine**
Mihaela Budiul, Gabriela Vlase, Ionela – Amalia Bradu, Alexandru Pahomi, Titus Vlase
- P.C5 Discovery of a NOR-PABA salt through the coamorphous thermal conversion**
Giovanna P. Costa, Amanda C. de Almeida, Patrícia O. Ferreira, Ricardo A. E. Castro, M. Ermelinda S. Eusébio, Flávio J. Caires
- P.C6 Binary diagrams of therapeutic deep eutectic solvents based on ketoprofen and terpenoids**
Laura T. Ferreira, Amanda C. de Almeida, Patricia O. Ferreira, Flávio J. Caires
- P.C7 Evaluation and control of pharmaceutical blood products by TGA and Chemometrics**
Giuseppina Gullifa, Sara Massimi, Patrizia Caprari, Chiara Albertini, Elena Papa, Laura Barone, Paola Rotundo, Stefano Materazzi, Roberta Risoluti
- P.C8 Compatibility study of mirtazapine with several excipients used in pharmaceutical dosage forms employing thermal and non-thermal methods**
Denisa Cîrcioban, Adriana Ledetă, Amalia Ridichie, Titus Vlase, Ionuț Ledetă, Amalia Bradu, Alexandru Pahomi, Gabriela Vlase
- P.C9 Preparation and instrumental screening of binary adducts containing moxonidine**
Bianca Baul, Adriana Ledetă, Gabriela Vlase, Titus Vlase, Francisc Peter, Ionut Ledetă
- P.C10 Microcalorimetric assessment of *Pseudomonas aeruginosa* growth under the effect of copper sulfate solutions**
Ricardo Aveledo, Natividad Lago, Marta M. Mato, José Luis Legido
- P.C11 Preliminary studies on local hemostatic desorption of carbazochrome loaded on chitosan/HA biocomposite**
Alexandru Pahomi, Ionela – Amalia Bradu, Gabriela Vlase, Mihaela Budiul, Titus Vlase, Gheorghe Ilia
- P.C12 Preformulation studies of levonorgestrel**
Amalia Ridichie, Adriana Ledetă, Gerlinde Rusu, Laura Sbârcea, Denisa Cîrcioban, Francisc Peter, Ionuț Ledetă
- P.C13 Study of thermophysical properties of marine peloids for applications in thalassotherapy**
José Luis F. Tobar, Marta M. Mato, Ankurita Kashyap, Carmen P. Gómez , M. Lourdes Mourelle, José Luis Legido
- P.C14 *Helleborus purpurascens* - Untargeted low-molecular metabolomic approach to antitumoral phytocarrier system based on silver nanoparticles**
Adina-Elena Segneanu, Gabriela Vlase, Crina Andreea Sicoe, Titus Vlase, Ioan Grozescu
- P.C15 Compatibility study between active substances from the sartans class with various excipients using multiple technics**
Bianca Cernusca, Gabriela Vlase, Madalina Mateescu, Mihaela Maria Budiul, Titus Vlase
- P.C16 Thin polysaccharide films as carriers for local anesthetic and anti-inflammatory drugs**
Dorinel Okolișan, Gabriela Vlase, Amalia Bradu, Alexandru Pahomi, Mădălin Bunoiu, Titus Vlase

- P.D1 Application of thermal analysis techniques in the thermo-chemical recycling of multilayered food packaging**
Panagiotis Alexiou, Evangelia C. Vouvoudi, Dimitris S. Achilias
- P.D2 Thermal behavior of polyhydroxyurethanes vitrimers from Brazilian biomass**
Rafael T. Alarcon, Katie J. Lamb, Éder T.G. Cavalheiro, Michael North, Gilbert Bannach
- P.D3 Thermal behaviour of renewable copolymers from maleinized and carbonated vegetable oil**
Rafael T. Alarcon, Ana P.G. Ferreira, Gilbert Bannach, Éder T.G. Cavalheiro
- P.D4 A new biobased polymer with potential vitrimers properties**
Caroline Gagliari, Gabriel I. dos Santos, Rafael T. Alarcon, Raquel Magri, Fernanda B. dos Santos, Gilbert Bannach
- P.D5 Thermal characterization of a new rosin acids derivative**
Caroline Gagliari, Aniele de Moura, Gabriel I. dos Santos, Rafael T. Alarcon, Gilbert Bannach
- P.D6 In-situ monitoring the curing of pMDI with soybean protein**
Lamprini Malletzidou, Iouliana Chrysafi, Konstantinos Chrissafis
- P.D7 Rheological and thermal characterization of Funori gel**
Giulia D'Agostino, Giuseppe Lazzara, Maria Rita Caruso, Stefana Milioto, Giuseppe Cavallaro
- P.D8 Polymer/surfactant hydrogels for drug delivery: thermal and rheological characterization**
Elsa Loureiro, Rui Machado, Eduardo F. Marques
- P.D9 UV aging effects on PLA-based composite materials with wastes from olive-oil production**
Georgia Michailidou, Nikos Pardalis, Eleftheria Xanthopoulou, Electra Papadopoulou, Alexandra Zamboulis, Dimitrios N. Bikaris, Konstantinos Chrissafis
- P.D10 Ceramifiable door seals with reduced fire hazard and reduced emission of gaseous organic compounds from PAHS and PCDD/Fs group**
Przemysław Rybiński
- P.D11 Bacterial adhesion on a synthetic polymer matrix of poly(vinyl alcohol)**
Arkadiusz Głowiak, Przemysław Rybiński, Grzegorz Czerwonka, Dawid Gmiter, Naofumi Naga
- P.E1 Sputter deposition of metal nanoparticles in ionic liquid films obtained via thermal evaporation**
Alexandre C. P. M. Alves, Luís M. N. B. F. Santos, Margarida Bastos, José C. S. Costa
- P.E2 Spectroscopic and thermoanalytical studies of agents for chemo-mechanical caries removal**
Ionela – Amalia Bradu, Gabriela Vlase, Mihaela Budiu, Alexandru Pahomi, Maria-Luiza Cocotă, Titus Vlase
- P.E3 Impact of deposition rate on the morphology of pure and mixed ionic liquids via thermal evaporation**
Rita M. Carvalho, Soraia R. M. R. Silva, Cândida G. Neto, Luís M. N. B. F. Santos, Margarida Bastos, José C. S. Costa

- P.E4** **Recycling volcanic fly ashes through geopolymers: synthesis and characterization**
Ignazio Blanco, Antonio D'Angelo, Veronica Viola, Luigi Vertuccio, Michelina Catauro
- P.E5** **Thermal stability of thermoelectric Cr-substituted and Fe-substituted Higher Manganese Silicides**
Aikaterini Teknetzi, Evangelia Tarani, Eleni Pavlidou, Konstantinos Chrissafis, George Vourlias
- P.E6** **Thermo-kinetic behavior of Ce-doped 45S5 bioactive glass**
Mária Chromčíková, Branislav Hruška, Aleksandra Nowicka, Roman Svoboda
- P.E7** **Structural interpretation of the glass transition behavior in the Al₂O₃-doped lead-borate glasses**
Branislav Hruška, Mária Chromčíková, Armenak A. Osipov, Leyla M. Osipova, Aleksandra Nowicka, Roman Svoboda, Marek Liška
- P.E8** **Kinetics, and structural relaxation of the Al₂O₃-PbO-B₂O₃ glasses**
Aleksandra Nowicka, Mária Chromčíková, Branislav Hruška, Marek Liška
- P.E9** **Thermotropic ionic liquid crystals tunable by the spacer length in 14-s-14 gemini surfactants**
Pedro D. M. Ferreira, Ricardo M. F. Fernandes, Mariña Castroagudín, Luís Garcia-Rio, Isabel S. Oliveira, Eduardo F. Marques
- P.E10** **Evolution of hydroxyapatite particle size by thermal treatment and polymer matrix diffusion**
Alexandru Pahomiu, Ionela – Amalia Bradu, Gabriela Vlase, Mihaela Budiu, Titus Vlase, Gheorghe Ilia
- P.E11** **Thermal and structural analysis of a Fe₆₅Co₃₅ soft magnetic alloy for different manufacturing conditions**
Jason Daza, Wael Ben Mbarek, Lluïsa Escoda, Joan Saurina, Joan Josep Suñol
- P.E12** **Effect of the boron addition on the thermal behaviour and microstructure of Fe based powdered alloys**
N. Khitouni, L. Escoda, Jason Daza, Joan-Josep Suñol, Mohamed Khitouni
- P.E13** **Physical chemical and thermal properties of geopolymers for Cultural Heritage**
Maria Rosaria Tiné, Chiara Pelosi, Elena Pulidori, Silvia Pizzimenti, Rita Carosi, Germana Barone, Paolo Mazzoleni, Celia Duce, Luca Bernazzani
- P.E14** **Thermo-magnetic analysis of MnCo(Fe)Ge(Si) mechanically alloyed systems**
A. Vidal-Crespo, J.J. Ipus, R. Caballero-Flores, F.J. Romero-Landa, J.S. Blázquez, C.F. Conde
- P.F1** **Exploring dual-source thermal evaporation to create perovskite thin films for photovoltaic applications**
Artur F. M. Farinha, Luís M. N. B. F. Santos, José C. S. Costa
- P.F2** **Evaluation of the effect of biodiesel content in diesel / biodiesel fuel blends on gums and sediments formation using thermogravimetry**
R. S. Leonardo, J. Dweck , M. L. Murta Valle

- P.F3** **Thermodynamic study of the effect of functional groups on anthraquinones: Leucoquinizarin, chrysazin and 2-methylanthraquinone**
Nelson M.C.C. Mbelela, Vera L.S. Freitas, Maria D.M.C. Ribeiro da Silva
- P.F4** **Long-term thermal stability of different ionic liquids and their mixtures with salt. Comparison with its nanoconfinement**
A. Santiago, P. Vallet, J. M. Antelo, L. A. Adrio, P. Barreiro, M. Villanueva, L.M. Varela, J. J. Parajó, J. Salgado
- P.F5** **A study of Posidonia Oceanica leaves thermal profile and their potential use as fillers for decorative laminate manufacturing**
Christina Kyriakou-Tziamtzi, Evangelia Tarani, Konstantinos Chrissafis
- P.F6** **Thermal and toxicological characterization of n-alkyl-ammonium nitrate ionic liquids (n=2, 3, 4, 5, 6, 8) for energy applications**
M. Villanueva, P. Vallet, T. Teijeira, A. Santiago, A. Domínguez, P. Rojo, J. Sánchez, J. J. Parajó, J. Salgado, L. M. Varela
- P.F7** **Laboratory effectiveness of Firefighting Foam based on eco-friendly soap compounds on two different Galician soils. Thermal characterization**
M. Villanueva, D. Sieiro, F. Muñoz, J.J. Parajó, S. González-Prieto, J. Salgado
- P.F8** **Performance engineered adsorbent for hexavalent chromium from water solutions**
Adina-Elena Segneanu, Gabriela Vlase, Mihaela Simona Calinescu (Bocanici), Titus Vlase, Melinda Cepan (Farago), Ioan Grozescu
- P.G1** **Upgrading and testing a high precision microcalorimeter for the determination of heat capacity**
Rodrigo M. A. Silva, Ana I. M. C. Lobo Ferreira, Luís M. N. B. F. Santos
- P.G2** **Fast differential scanning calorimetry: new solutions in data treatment to investigate organic molecular glass-formers**
Daniele Sonagliani, Elpidio Tombari, Simone Capaccioli