

| Tuesday, 26 <sup>th</sup> of July   |  | Wednesday, 27 <sup>th</sup> of July |   |        |        | Thursday, 28 <sup>th</sup> of July |                                    |   |        | Friday, 29 <sup>th</sup> of July   |               |                                    |   |  |
|---|--|-------------------------------------|---|--------|--------|------------------------------------|------------------------------------|---|--------|------------------------------------|---------------|------------------------------------|---|--|
|   |  | 9 <sup>00</sup> -9 <sup>30</sup>    | IL01                                    |        | IL02   |                                    | 9 <sup>00</sup> -9 <sup>30</sup>   | IL05                                    |        | IL06                               |               | 9 <sup>00</sup> -9 <sup>30</sup>   |   |  |
|   |  | 9 <sup>30</sup> -11 <sup>20</sup>   | Poster session 1<br><i>Coffee break</i> |        |        |                                    | 9 <sup>30</sup> -11 <sup>20</sup>  | Poster session 2<br><i>Coffee break</i> |        |                                    |               | 9 <sup>30</sup> -11 <sup>20</sup>  | Poster session 3<br><i>Coffee break</i> |  |
|   |  | 11 <sup>20</sup> -11 <sup>40</sup>  | KL01                                    | KL02   | KL03   | KL04                               | 11 <sup>20</sup> -11 <sup>40</sup> | KL05                                    | KL06   | KL07                               | KL08          | 11 <sup>30</sup> -12 <sup>10</sup> | Luis A. Perez-Maqueda, PL5              |  |
|   |  | 11 <sup>40</sup> -12 <sup>00</sup>  | OP1.01                                  | OP2.01 | OP3.01 | OP4.01                             | 11 <sup>40</sup> -12 <sup>00</sup> | OP1.08                                  | OP2.08 | OP3.08                             | OP4.08        |                                    |   |  |
|   |  | 12 <sup>00</sup> -12 <sup>20</sup>  | OP1.02                                  | OP2.02 | OP3.02 | OP4.02                             | 12 <sup>00</sup> -12 <sup>20</sup> | OP1.09                                  | OP2.09 | OP3.09                             | OP4.09        | 12 <sup>10</sup> -12 <sup>20</sup> | CEEC-TAC7 Info                          |  |
|   |  | 12 <sup>20</sup> -12 <sup>40</sup>  | OP1.03                                  | OP2.03 | OP3.03 | OP4.03                             | 12 <sup>30</sup> -13 <sup>00</sup> | IL07                                    |        | IL08                               |               |                                    |   |  |
|   |  | 12 <sup>50</sup> -13 <sup>30</sup>  | Sigrid Bernstorff, PL2                  |        |        |                                    | 13 <sup>00</sup> -13 <sup>40</sup> | Werner E.G. Muller, PL4                 |        |                                    |               | 12 <sup>20</sup> -13 <sup>00</sup> | Konstantinos Raftopoulos, PL6           |  |
|   |  | 13 <sup>30</sup> -15 <sup>00</sup>  | <i>Lunch</i>                            |        |        |                                    | 13 <sup>40</sup> -15 <sup>00</sup> | <i>Lunch</i>                            |        |                                    |               | 13 <sup>00</sup> -14 <sup>30</sup> | <i>Lunch</i>                            |  |
|   |  | 15 <sup>00</sup> -15 <sup>10</sup>  | CEEC-PCMS1 Info                         |        |        |                                    | 15 <sup>00</sup> -15 <sup>10</sup> | CEEC-PCMS1 Info                         |        |                                    |               | 14 <sup>30</sup> -15 <sup>30</sup> | Workshop on<br>Physical Chemistry       |  |
|   |  | 15 <sup>10</sup> -15 <sup>50</sup>  | Aliaksandr Bandarenka, PL3              |        |        |                                    | 15 <sup>10</sup> -15 <sup>20</sup> | CEEC-PCMS2 Info                         |        |                                    |               |                                    |   |  |
|   |  | 16 <sup>00</sup> -16 <sup>30</sup>  | IL03                                    |        | IL04   |                                    | 16 <sup>00</sup> -20 <sup>00</sup> | Afternoon break                         |        |                                    |               | 15 <sup>30</sup> -18 <sup>00</sup> | Afternoon break                         |  |
| 12 <sup>00</sup> -16 <sup>30</sup>  | Registration of participants at CEEC-PCMS1 | 16 <sup>30</sup> -16 <sup>50</sup>  | OP1.04                                  | OP2.04 | OP3.04 | OP4.04                             |                                    |   |        |                                    |               |                                    |   |  |
|   |  | 16 <sup>50</sup> -17 <sup>10</sup>  | OP1.05                                  | OP2.05 | OP3.05 | OP4.05                             |                                    |   |        |                                    |               |                                    |   |  |
|   |  | 17 <sup>10</sup> -17 <sup>30</sup>  | OP1.06                                  | OP2.06 | OP3.06 | OP4.06                             |                                    |   |        |                                    |               |                                    |   |  |
| 16 <sup>30</sup> -19 <sup>00</sup>  | Afternoon break                            | 17 <sup>30</sup> -17 <sup>50</sup>  | OP1.07                                  | OP2.07 | OP3.07 | OP4.07                             |                                    |   |        |                                    |               |                                    |   |  |
| 19 <sup>00</sup> -19 <sup>50</sup>  | Opening Ceremony                           | 18 <sup>00</sup> -19 <sup>00</sup>  | CEEC-PCMS Assembly                      |        |        |                                    |                                    |   |        |                                    |               |                                    |   |  |
| 19 <sup>50</sup> -20 <sup>30</sup>  | Jaroslav Sestak, PL1                       | 17 <sup>50</sup>                    | Free evening                            |        |        |                                    |                                    |   |        |                                    |               |                                    |   |  |
| 20 <sup>30</sup> -23 <sup>30</sup>  | Welcome Cocktail                           |                                     |   |        |        |                                    | 20 <sup>00</sup> -24 <sup>00</sup> | Conference Dinner                       |        | 18 <sup>00</sup> -20 <sup>00</sup> | Old-City Tour |                                    |   |  |
| 1. Room A at KTF (A0-2, Level 0)  |  |                                     |   |        |        |                                    |                                    |   |        | Saturday, 30 <sup>th</sup> of July |               |                                    |   |  |
| 2. Room B at KTF (A0-3, Level 0)  |  |                                     |   |        |        |                                    |                                    |   |        | KTF Tour                           |               |                                    |   |  |
| 3. Room C at KTF (A1-3, Level 1)  |  |                                     |   |        |        | 9 <sup>30</sup> -11 <sup>00</sup>  |                                    |   |        |                                    |               |                                    |   |  |
| 4. Room D at KTF (A1-2, Level 1)  |  |                                     |   |        |        | 11 <sup>00</sup>                   |                                    |   |        | Closing Ceremony                   |               |                                    |   |  |
| 5. Coffee Break and Poster Session area at KTF  |  |                                     |   |        |        |                                    |                                    |   |        |                                    |               |                                    |   |  |
| 6. Canteen at the Student Service   |  |                                     |   |        |        |                                    |                                    |   |        |                                    |               |                                    |   |  |
| 1-6: Sveuciliste u Splitu, Kemijsko-Tehnoloski Fakultet, Rudera Boskovicica 35, Split |  |                                     |   |        |        |                                    |                                    |   |        |                                    |               |                                    |   |  |
| 7. To be announced  |  |                                     |   |        |        |                                    |                                    |   |        |                                    |               |                                    |   |  |
| 8. Split City Centre – Diocletian Palace  |  |                                     |   |        |        |                                    |                                    |   |        |                                    |               |                                    |   |  |

**Program of CEEC-PCMS1**  
26-30 July 2022  
Split, Croatia

| <b>Plenary, Invited &amp; Keynote Lectures</b> |                             |                |   |             |
|--|-----------------------------|----------------|---|-------------|
| <b>No</b>                                      | <b>Name</b>                 | <b>Country</b> | <b>Abstract title</b>   | <b>Code</b> |
| <b>Plenary Lectures</b>                        |                             |                |   |             |
| 1  | Sestak, Jaroslav            | Czech Republic | Thermal analysis and material thermodynamics assuming dimensions  | PL1         |
| 2  | Bernstorff, Sigrid          | Italy          | Small Angle Scattering and its Application in Chemistry, Life and Material Science  | PL2         |
| 3  | Bandarenka, Aliaksandr      | Germany        | Identifying Active Electrocatalytic Centers Under Reaction Conditions with Electrochemical Scanning Tunneling Microscopy  | PL3         |
| 4  | Muller, Werner E.G.         | Germany        | Morphogenetically active amorphous polyphosphate: A foundational breakthrough invention for medical applications  | PL4         |
| 5  | Prez-Maqueda, Luis A.       | Spain          | Ceramics in a Flash. Flash Sintering of ceramic materials   | PL5         |
| 6  | Raftopoulos, Konstantinos   | Poland         | Glass transition in polyurethane-POSS hybrid materials  | PL6         |
| <b>Invited Lectures</b>                        |                             |                |   |             |
| 1  | Blanco, Ignazio             | Italy          | POSS Hybrid Nanoparticles: State of the Art and Future Developments   | IL01        |
| 2  | Freitas, Vera L.S.          | Portugal       | Advances on the thermochemistry of heterocyclic compounds   | IL02        |
| 3  | Hus, Matej                  | Slovenia       | The role of theoretical calculations and multiscale modelling in understanding mechanisms and kinetics in heterogeneous catalysis   | IL03        |
| 4  | Goncalves Leles, Maria Ines | Brazil         | The research in partnership with the pharmaceutical industry: Challenges and Opportunities  | IL04        |
| 5  | Menyhard, Alfred            | Hungary        | Simulation of crystalline morphology and optical properties from a simple calorimetric crystallization curve  | IL05        |
| 6  | Manfredi, Diego             | Italy          | Additive Manufacturing for metals: Powder Bed Fusion (PBF) vs. Directed Energy Deposition (DED) techniques  | IL06        |
| 7  | Oliver, Clive L.            | South Africa   | Crystal Engineering of Metal-Organic Frameworks with Dynamic Structural Properties  | IL07        |
| 8  | Vasos, Paul                 | Romania        | Magnetic Resonance Biomarkers for Molecular Imaging of FLASH Radiation Effects  | IL08        |
| <b>Keynote Lectures</b>                        |                             |                |   |             |
| 1  | Simon, Peter                | Slovakia       | Isoconversional principle and temperature functions   | KL01        |
| 2  | Mateescu, Madalina          | Romania        | Preparation and characterization of Propyphenazone medicated jellies  | KL02        |
| 3  | Parisi, Filippo             | Italy          | Maturation stages of glauconites: A combined EMPA, Raman and TGA study  | KL03        |
| 4  | Pavlovic, Miroslav M.       | Serbia         | Advanced hybrid composite coatings based on calcium phosphate on titanium for potential biomedical applications   | KL04        |
| 5  | Roventa, Ionel              | Romania        | From control theory to a new integral method for non-isothermal kinetic analysis  | KL05        |
| 6  | Ivanov, George R.           | Bulgaria       | Adsorption of glucose oxidase enzyme molecules to Langmuir films from DPPE-NBD phospholipid with well-developed 3D structure and glucose sensor formed by the Langmuir-Blodgett film method | KL06        |
| 7  | Bednarska, Dalia            | Poland         | Sodium sulphate crystallization pattern within pores of red clay brick induced by temperature decrease  | KL07        |
| 8  | Racz, Adel                  | Hungary        | Carbide-rich protective nano-coatings produced by noble gas ion-mixing  | KL08        |

| <b>Oral Presentations 1. Thermal Science, Kinetics &amp; Catalysis</b> |                     |                |   |             |
|--|---------------------|----------------|---|-------------|
| <b>No</b>  | <b>Name</b>         | <b>Country</b> | <b>Abstract title</b>   | <b>Code</b> |
| 1  | Oreski, Gernot      | Austria        | Degradation of PET – quantitative estimation of changes in molar mass using mechanical and thermal characterization methods           | OP1.01      |
| 2  | Pucko, Ivan         | Croatia        | Thermal properties of diesel with different methyl and benzyl methacrylate polymer additives  | OP1.02      |
| 3  | Zhao, Shuna         | China          | Thermal behaviour and decomposition mechanism of double-base solid propellants by kinetic methods                                     | OP1.03      |
| 4  | Alonso Ipina, Alain | Spain          | Thermal characterization of Acrylonitrile Butadiene Styrene-ABS obtained with different manufacturing processes                       | OP1.04      |
| 5  | Cieslar, Miroslav   | Czech Republic | Thermal stability of composite Ni-Ti core-shell nanoparticles   | OP1.05      |
| 6  | Moradi, Sasan       | Spain          | Effect of densification on the thermal conductivity of the epoxy composites   | OP1.06      |
| 7  | Sert, Seda          | Turkey         | Carbazole Containing Photoactive Azobenzene Derivatives: Electropolymerization, Thermal Stability and Solar Thermal Storage Propertie | OP1.07      |
| 8  | Rotaru, Andrei      | Romania        | Is Porous Society the Origin of Social Order?   | OP1.08      |
| 9  | Kurajica, Stanislav | Croatia        | Thermal stability and properties of Pd/CeAlO <sub>3</sub> catalyst prepared by combustion synthesis                                   | OP1.09      |

| <b>Oral Presentations 2. Electrochemistry, Soft Materials, Thin Films &amp; Coatings</b> |                         |                |  |             |
|--|-------------------------|----------------|--|-------------|
| <b>No</b>  | <b>Name</b>             | <b>Country</b> | <b>Abstract title</b>  | <b>Code</b> |
| 1  | Boshkov, Nikolay        | Bulgaria       | Corrosion characterization of hybrid zinc coatings on steel with embedded CuO nanoparticles in artificial sea water                          | OP2.01      |
| 2  | Hrepic, Antea           | Croatia        | Eco-friendly copper corrosion inhibitors in sodium chloride solution   | OP2.02      |
| 3  | Kokol, Vanja            | Slovenia       | Ecotoxicity and cytotoxicity of antimicrobial active nanocellulose   | OP2.03      |
| 4  | Monreal Corera, Nicolas | Spain          | Systems containing chlorhexidine and polylactic cid/polyvinylpyrrolidone for biomedical applications   | OP2.04      |
| 5  | Blyzniuk, Bohdana       | Poland         | Epitaxial Magnetite Films grown under external magnetic field  | OP2.05      |
| 6  | Alonso Ipina, Alain     | Spain          | Experimental and analytical study of the influence of the incident heat flux in cables heat release  | OP2.06      |
| 7  | Cakara, Dusko           | Croatia        | Application of the effective medium theory for optical modelling of the composite thin films   | OP2.07      |
| 8  | Vucetic, Snezana        | Serbia         | Investigation of mortars technology applied at the borders of the Roman Empire   | OP2.08      |
| 9  | Striani, Raffaella      | Italy          | Coating's influence on wind erosion of porous stone used in the cultural heritage of Southern Italy: surface characterisation and resistance | OP2.09      |

| Oral Presentations 3. Geoscience, Functional Materials & Nanomaterials |                      |                |   |        |
|--|----------------------|----------------|---|--------|
| No   | Name                 | Country        | Abstract title  | Code   |
| 1  | Rukavina, Marko      | Croatia        | Geopolymer-zeolite composites for photocatalysis  | OP3.01 |
| 2  | Slany, Michal        | Slovakia       | Metabentonite and metakaolin-based geopolymers: relation between kind of clay mineral, calcination temperature, and concentration of alkaline activator | OP3.02 |
| 3  | Sestak, Jaroslav     | Czech Republic | Geopolymers considered being hypocrystalline materials with an allied mers-framework: a short evaluation  | OP3.03 |
| 4  | Krezhov, Kiril       | Bulgaria       | Antiferromagnetism and structure of $Sr_{1-x}BaxFeO_2F$ oxyfluoride perovskites   | OP3.04 |
| 5  | Kwiatek, Natalia     | Poland         | Chemical and magnetic properties of the Co/ $\alpha$ - $Fe_2O_3(0001)$ and Co/ $Fe_3O_4(111)$ bilayers  | OP3.05 |
| 6  | Fahmi, Amir          | Germany        | Nanofabrication of Functional Hybrid Nanomaterials  | OP3.06 |
| 7  | Ciesielski, Wojciech | Poland         | Hybrid materials for hydrogen storage systems based on carbon nanotubes and new super-light lithium alloys  | OP3.07 |
| 8  | Yang, Xinrui         | China          | Numerical modelling of temperature field and mass loss in glass fibre reinforced epoxy during laser ablation  | OP3.08 |
| 9  | Liu, Hao             | China          | Effects of Natural Ageing and Humidity on the Combustion Model of Cypress and Fir   | OP3.09 |

| Oral Presentations 4. Metals, Alloys, Ceramics & Composites |                         |                |   |        |
|---|-------------------------|----------------|---|--------|
| No  | Name                    | Country        | Abstract title  | Code   |
| 1   | Bajtosova, Lucia        | Czech Republic | Structure and recrystallization of thin low-carbon steel films  | OP4.01 |
| 2   | Waichman, Sharon        | Israel         | Adhesion study of boron carbide coatings sputter deposited on aluminum substrates   | OP4.02 |
| 3   | Mandic, Vilko           | Croatia        | Potentiostatic vs. galvanostatic approach for growth of the titania nanostructured arrays via electrochemical etching of titanium films deposited by magnetron sputtering | OP4.03 |
| 4   | Panzic, Ivana           | Croatia        | Tin oxide as electron transport layer for perovskite solar cells  | OP4.04 |
| 5   | Bastakys, Lukas         | Lithuania      | Tribological properties of plasma sprayed $Cr_2O_3$ , $Cr_2O_3-TiO_2-SiO_2$ and $Cr_2O_3-TiO_2-SiO_2$ -graphite coatings  | OP4.05 |
| 6   | Conradi, Marjetka       | Slovenia       | Water versus oil lubrication of laser-textured Ti6Al4V alloy upon addition of $MoS_2$ nanotubes for green tribology   | OP4.06 |
| 7   | Marcinauskas, Liutauras | Lithuania      | Improvement of tribological properties of alumina and chromium oxide coatings deposited by plasma spraying  | OP4.07 |
| 8   | Vincic, Josip           | Italy          | Microstructural investigation of the hot work tool steel W360 produced by additive manufacturing  | OP4.08 |
| 9   | Csaki, Stefan           | Slovakia       | Synthesis of $Ti_3SiC_2$ MAX phase from Ti, TiC, and SiC by Spark Plasma Sintering  | OP4.09 |

| Poster Session 1. |                                |                        |   |        |
|-------------------|--------------------------------|------------------------|---|--------|
| No                | Name                           | Country                | Abstract title  | Code   |
| 1                 | Bouamra, Faiza                 | Algeria                | Theoretical study of structural, electronic, thermoelectric and spectroscopic properties of rutile SnO <sub>2</sub> with oxygen vacancies         | PS1.01 |
| 2                 | Zlatic, Gloria                 | Bosnia and Herzegovina | The influence of <i>Artemisia annua</i> L. extract on biocorrosion of 316L stainless steel caused by bacterium <i>Pseudomonas aeruginosa</i>      | PS1.02 |
| 3                 | de Paula Costa, Giovanna       | Brazil                 | Thermal analysis as strategy of elucidation of pharmaceutical cocrystals and eutectics mixtures of Norfloxacin                                    | PS1.03 |
| 4                 | de Paula Costa, Giovanna       | Brazil                 | Mechanochemical synthesis of a dual-drug coamorphous system of Valsartan and Carvedilo  | PS1.04 |
| 5                 | Goncalves Leles, Maria Ines    | Brazil                 | Thermal and structural characterization of Ciprofibrate   | PS1.05 |
| 6                 | Goncalves Leles, Maria Ines    | Brazil                 | New hybrid of Ciprofibrate with Ni II: synthesis and characterization   | PS1.06 |
| 7                 | Boshkova, Nelly                | Bulgaria               | Protective ability against localized corrosion of steel by hybrid zinc-based coatings in 5% NaCl solution   | PS1.07 |
| 8                 | Krezhov, Kiril                 | Bulgaria               | Structure and magnetic properties of nanostructured ZnFe <sub>2</sub> O <sub>4</sub> synthesized by sonochemistry                                 | PS1.08 |
| 9                 | Petkova, Vilma                 | Bulgaria               | Influence of pozzolanic additive and cement replacement on crystal and thermal chemistry of mortars   | PS1.09 |
| 10                | Petkova, Vilma                 | Bulgaria               | Thermal investigations of high-energy milled phosphorites from Tunisia, Syria and Estonia   | PS1.10 |
| 11                | Stoyanov, Ventseslav           | Bulgaria               | A comparative study of ancient and modern masonry mortars   | PS1.11 |
| 12                | Stoyanov, Ventseslav           | Bulgaria               | The characterization of ancient ceramic   | PS1.12 |
| 13                | Bajtosova, Lucia               | Czech Republic         | Homogenization of twin-roll cast Al-Li-based alloys   | PS1.13 |
| 14                | Cieslar, Miroslav              | Czech Republic         | Precipitation in Al-Li-based alloys after constrained groove pressing   | PS1.14 |
| 15                | Dohnalova, Zaneta              | Czech Republic         | Effect of iron doping on the VIS-NIR reflection, phase composition and thermal stability of SrTiO <sub>3</sub> perovskite                         | PS1.15 |
| 16                | Dubnova, Lada                  | Czech Republic         | Analysis of the active sites in the oxidative dehydrogenation of ethane over Fe-FER   | PS1.16 |
| 17                | Grycova, Barbora               | Czech Republic         | Pyrolysis of Miscanthus/Wood/Resin Fiberboards to Ensure a Complete Miscanthus Value Chain  | PS1.17 |
| 18                | Kamenikova, Eliska             | Czech Republic         | Preparation of PET particles for environmental research   | PS1.18 |
| 19                | Klemencova, Katerina           | Czech Republic         | Catalytic pyrolysis of waste polypropylene with zeolites  | PS1.19 |
| 20                | Meinhardova, Vendula           | Czech Republic         | Decomposition of methanol-water solution over heterojunction photocatalysts   | PS1.20 |
| 21                | Rezacova, Veronika             | Czech Republic         | Effect of platinum nanoparticles on dissolved organic m   | PS1.21 |
| 22                | Rezacova, Veronika             | Czech Republic         | Behaviour of confined water in the presence of nanoparticles  | PS1.22 |
| 23                | Sestak, Jaroslav               | Czech Republic         | Books show on thermophysical research of materials in the Springer series 'Hot topic of thermal analysis  | PS1.23 |
| 24                | Troppova, Ivana                | Czech Republic         | Ecotoxicity of photocatalytic TiO <sub>2</sub> -based surfaces prepared by different preparation methods and doped with Zr and Ce                 | PS1.24 |
| 25                | Barzilai, Shmuel               | Israel                 | Chemical interactions between gas-phase impurities contained in hydrogen, and gadolinium hydride surfaces-DFT calculations and experimental study | PS1.25 |
| 26                | Bar-Ziv, Ronen                 | Israel                 | Hybrid Prussian-blue-analog-based nanostructures demonstrate highly efficient electrocatalytic oxygen evolution reaction                          | PS1.26 |
| 27                | Mendelson, Orit                | Israel                 | Surfactant-mediated co-existence of Single-Walled Carbon Nanotubes Networks and Cellulose Nanocrystals mesophases                                 | PS1.27 |
| 28                | Zukerman, Ido                  | Israel                 | Hydrogen Protection using CrN Coatings: Experimental and Theoretical Study  | PS1.28 |
| 29                | Blanco, Ignazio                | Italy                  | Thermo-mechanical characterization of Metakaolin(MK)-based geopolymers filled with Etna volcanic fly ash  | PS1.29 |
| 30                | Ribeiro da Silva, Maria D.M.C. | Portugal               | Thermochemical and thermophysical studies on 1,7- and 2,7-dihydroxynaphthalene isomers  | PS1.30 |
| 31                | Pavlovic, Miroslav             | Serbia                 | Lanthanum / manganese oxide-based composites with reduced Pt load for oxygen reduction reaction   | PS1.31 |
| 32                | Vucetic, Snezana               | Serbia                 | A novel strategy for the environmental health risk reduction against alpha-radiation in the Autonomous Province of Vojvodina                      | PS1.32 |
| 33                | Slany, Michal                  | Slovakia               | Influence of geothermal water and increased temperature on early and middle stages of hydration of multicomponent cement systems                  | PS1.33 |
| 34                | Perez-Maqueda, Luis A.         | Spain                  | Improving limestone performance for Thermochemical Energy Storage by surface modification   | PS1.34 |
| 35                | Sirbu, Carmen                  | Romania                | Plant biostimulant effects on vineyard through foliar fertilization   | PS1.35 |
| 36                | Tozar, Tatiana                 | Romania                | Photopolymerization of gelatin methacryloyl (GelMA) hydrogels: synthesis, properties and biological application                                   | PS1.36 |
| 37                | Urzica, Iuliana                | Romania                | Manufacture of metal pattern by laser processing for microfluidic structures on polymers  | PS1.37 |
| 38                | Bojan, Mihaela                 | Romania                | Optical and thermal techniques used for a better characterization of hydrogels  | PS1.38 |

|    |                      |            |   |        |
|----|----------------------|------------|---|--------|
| 39 | Nicolicescu, Claudiu | Romania    | Fabrication and characterization of W/Cu functional graded materials obtained by conventional and spark plasma sintering                | PS1.39 |
| 40 | Ivosevic, Spiro      | Montenegro | Comparative statistical analysis of different shape memory alloys corrosion layers emerged under the influences of seawater environment | PS1.40 |
| 41 | Sciascia, Luciana    | Italy      | Synthesis and characterization of polymeric and copolymeric precursors of carbon fibers coupled to a chemical oscillator                | PS1.41 |
| 42 | Sarbu, Daniela       | Romania    | Obtaining a titanium-based alloy for the automotive industry  | PS1.42 |

| Poster Session 2. |                         |             |   |        |
|-------------------|-------------------------|-------------|---|--------|
| No                | Name                    | Country     | Abstract title  | Code   |
| 1                 | Biocic, Maja            | Croatia     | Determination of penicillamine in pharmaceutical formulations using kinetic method with spectrophotometric detector   | PS2.01 |
| 2                 | Blazevic, Ivica         | Croatia     | Glucosinolates vs cadmium accumulation in the cultivated garden cress ( <i>Lepidium sativum</i> L.): Resistance is futile?  | PS2.02 |
| 3                 | Boskovic, Perica        | Croatia     | Determination of Vaporization Enthalpy of 3,3-dimethyloctane by Gas Chromatography  | PS2.03 |
| 4                 | Brncic, Mladen          | Croatia     | Rheological behaviour of selected dairy creams  | PS2.04 |
| 5                 | Covic, Andela           | Croatia     | Synthesis of nanosized Titanium dioxide by sol-gel method   | PS2.05 |
| 6                 | Curkovic, Lidija        | Croatia     | Removal of ciprofloxacin from aqueous solution using clinoptilolite-based adsorbents  | PS2.06 |
| 7                 | Curkovic, Lidija        | Croatia     | Photolytic and photocatalytic degradation of the pharmaceutical memantine   | PS2.07 |
| 8                 | Dabic, Pero             | Croatia     | Determination of kinetic parameters of cement hydration with the addition of zinc-saturated zeolite based on the measured heat of hydration   | PS2.08 |
| 9                 | Heo, Ho-Seong           | South Korea | Effects of CrN coating on titanium as bipolar plates for proton exchange membrane fuel cells  | PS2.09 |
| 10                | Heo, Ho-Seong           | South Korea | Electrochemical behaviour of TiN-coated titanium in simulated environment of proton exchange membrane fuel cells  | PS2.10 |
| 11                | Hwang, Hyun-Kyu         | South Korea | Optimization of electropolishing process to minimize roughness of super austenitic stainless steel using Taguchi method   | PS2.11 |
| 12                | Hwang, Hyun-Kyu         | South Korea | Effect of seawater temperature and damage behaviour analysis on the potentiodynamic polarization characteristics after electropolishing for super austenitic stainless steel  | PS2.12 |
| 13                | Lee, Jong Hyun          | South Korea | Synthesis of Submicrometer Cu Particles by Pyrolysis of Cu Formate Complex and Sinter-Bonding Properties Using the Particles  | PS2.13 |
| 14                | Shin, Dong-Ho           | South Korea | Effects of TiN and CrN coating on electrochemical characteristics of 316L stainless steel as PEMFC metallic bipolar plate   | PS2.14 |
| 15                | Shin, Dong-Ho           | South Korea | Electrochemical characteristics with DLC coating thickness of material for metallic bipolar plate in PEMFC operation condition  | PS2.15 |
| 16                | Yoon, Junhyeok          | South Korea | Identification of protein-small molecule interactions based on aptamer-mediated switching of DNA polymerase activity  | PS2.16 |
| 17                | Butkute, Rita           | Lithuania   | Effect of the Substitution Pattern on the Photophysical Properties of Phenanthroimidazole Derivatives   | PS2.17 |
| 18                | Eisinas, Anatolijus     | Lithuania   | The effect of calcination temperature on mayenite hydration properties  | PS2.18 |
| 19                | Keruckiene, Rasa        | Lithuania   | Derivatives of Bis(trifluoromethyl)biphenyl and Various Donor Moieties Exhibiting Dual-State Emission for Sensing Applications  | PS2.19 |
| 20                | Siauciunas, Raimundas   | Lithuania   | Synthesis and characterisation of calcium monosulfoaluminate  | PS2.20 |
| 21                | Siauciunas, Raimundas   | Lithuania   | Production of white textured paints by using phosphogypsum waste  | PS2.21 |
| 22                | Vasilauskiene, Kristina | Lithuania   | Formation of katoite during hydrothermal synthesis in the mixtures with CaO/Al <sub>2</sub> O <sub>3</sub> molar ratio 2.8-3.2  | PS2.22 |
| 23                | Bogdal, Dariusz         | Poland      | Novel copolymers of carbazole, quinoline, and coumarin with Alq <sub>3</sub> complexes  | PS2.23 |
| 24                | Dudek, Magdalena        | Poland      | The utilisation of biochar derived from waste corn cobs and coconut shells as fuels in solid oxide fuel cells involving perovskite oxides or composite cermets – a comparative study                                | PS2.24 |
| 25                | Dudek, Magdalena        | Poland      | A direct carbon solid oxide fuel cell stack constructed in a tubular configuration design, construction and electrochemical performance   | PS2.25 |
| 26                | Dudek, Piotr            | Poland      | Thermal and mechanical properties of polymer powders for Selective Laser Sintering  | PS2.26 |
| 27                | Krol, Mariusz           | Poland      | Thermal behaviour of grain modified ultralight Mg-Li-Al alloys  | PS2.27 |
| 28                | Krol, Mariusz           | Poland      | Application of hybrid PVD/ALD method for deposition of bilayer TiN/ZnO coatings on 316L steel   | PS2.28 |
| 29                | Migas, Damian           | Poland      | Oxidation and corrosion resistance of Co-Al-W alloys doped with reactive elements   | PS2.29 |
| 30                | Rybinski, Przemyslaw    | Poland      | Influence of lignocellulose filler on flammability and optical smoke density of natural rubber composites. Toxicity gaseous products including PCDD/F and PAH created during thermal decomposition of NR composites | PS2.30 |

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|----|-----------------------|---------|--|--------|
| 31 | Rybinski, Przemyslaw  | Poland  | Fire protected doors. The role of inside filler in fire protection of door   | PS2.31 |
| 32 | Sitarz, Maciej        | Poland  | Bioactive black glasses from SiOCB system  | PS2.32 |
| 33 | Skroka, Marek         | Poland  | Analysis of the microstructure of a welded joint made of P91 steel after 3000 hours of ageing at 600 and 650 °C  | PS2.33 |
| 34 | Skroka, Marek         | Poland  | Microstructure and mechanical properties of Super 304H welded joint after 3000 hours of ageing at 700 and 750 °C   | PS2.34 |
| 35 | Vlase, Gabriela       | Romania | Preliminary study of $\kappa$ -carrageenan based membranes for antiinflammatory drug delivery  | PS2.35 |
| 36 | Vlase, Gabriela       | Romania | Biopolymer membranes as drug release system for local anesthetics  | PS2.36 |
| 37 | Vlase, Titus          | Romania | Pottery and clay: analysis of late Neolithic pottery and clay samples from the Ronaț-Triaj site (Timișoara, Timis County, Romania) using hyphenated techniques | PS2.37 |
| 38 | Vlase, Titus          | Romania | Methane-air accidental explosion in civil building – Case study  | PS2.38 |
| 39 | Harabor, Novac Adrian | Romania | Coherent laser irradiation of HID plasma: optical and electrical effects. Thermal analysis of tungsten electrode covered with emissive mixture                 | PS2.39 |
| 40 | Harabor, Novac Adrian | Romania | Oxygen D2 diffusion in Ag <sub>2</sub> O (0 and 5 wt.% Ag) doped YBCO-123 composite  | PS2.40 |
| 41 | Criveanu, Anca        | Romania | Chitosan stabilized suspensions of iron oxide nanoparticles synthesized by laser pyrolysis - the optimization of oxygen flow ratio in reactive mixture         | PS2.41 |
| 42 | Marin, Laurentiu      | Romania | Innovative process for obtaining space formations such as fullerenes and carbon nanotubes by pulsed electric discharges using pyrolytic graphite cathode       | PS2.42 |

| <b>Poster Session 3.</b> |                                |                |   |             |
|--------------------------|--------------------------------|----------------|---|-------------|
| <b>No</b>                | <b>Name</b>                    | <b>Country</b> | <b>Abstract title</b>   | <b>Code</b> |
| 1                        | Babic, Marko                   | Croatia        | Comparison of two waste emulsions using thermal analysis  | PS3.01      |
| 2                        | Basic, Anita                   | Croatia        | Temperature effect on copper(II) ions sorption on zeolite NaX   | PS3.02      |
| 3                        | Basic, Anita                   | Croatia        | Comparison of potentiometric and refractometric methods for borax concentration measurement during batch cooling crystallization        | PS3.03      |
| 4                        | Benjak, Paula                  | Croatia        | Immobilization of titanium dioxide on rubber tiles made with secondary raw materials for passive air protection by solar photocatalysis | PS3.04      |
| 5                        | Jacic, Mice                    | Croatia        | Impact of TiO <sub>2</sub> particle size and content on the non-isothermal degradation mechanism of the poly( $\epsilon$ -caprolactone) | PS3.05      |
| 6                        | Kresic, Irena                  | Croatia        | Preparation and characterization of PEO/PEG-POSS/LiBOB nanocomposite polymer electrolytes   | PS3.06      |
| 7                        | Kukovec, Boris-Marko           | Croatia        | Cobalt(II) coordination polymers with the mixed ligands – halonicotinate and bispyridyl derivatives                                     | PS3.07      |
| 8                        | Muzek, Mario Nikola            | Croatia        | Heavy metal`s sorption on a humus   | PS3.08      |
| 9                        | Perinovic Jozic, Sanja         | Croatia        | Structural and thermal characterisation of PEO/LiAlg blends prepared by solution casting and extrusion                                  | PS3.09      |
| 10                       | Tomic, Antonija                | Croatia        | Computational modelling an aid to understand binding and hydrolysis of neuropeptides in the active site of human DPP III                | PS3.10      |
| 11                       | Tranfic Bakic, Marina          | Croatia        | Complexation of selected dyes by calix[4]arene phenantridine derivatives  | PS3.11      |
| 12                       | Vrdoljak, Visnja               | Croatia        | Hybrid organic-inorganic compounds based on polyoxomolybdate and dioxomolybdenum(VI) complexes  | PS3.12      |
| 13                       | Vrsalovic, Ladislav            | Croatia        | Corrosion behaviour of CuAlMn alloy in chloride and sulphate electrolytes   | PS3.13      |
| 14                       | Vukojevic-Medvidovic, Nediljka | Croatia        | Electrocoagulation treatment of compost leachate using the waste of aluminium alloy, steel and zinc anode                               | PS3.14      |
| 15                       | Matko, Igor                    | Slovakia       | Thermoanalytical and microstructural characterization of particulate porous carbon materials  | PS3.15      |
| 16                       | Trnik, Anton                   | Slovakia       | The high-temperature crystallizations in illite/smectite – CaCO <sub>3</sub> and illite/smectite – limestone mixtures                   | PS3.16      |
| 17                       | Srichen, Aradchaporn           | Thailand       | Corrosion Behaviour and Bonding Strength of Thermally Sprayed Nickel Alloy Coatings for Use as Bond and Top Coatings                    | PS3.17      |
| 18                       | Budiul, Mihaela                | Romania        | Thermoanalytical and spectroscopic studies on medicated jellies with perphenazine   | PS3.18      |
| 19                       | Cernusca, Bianca               | Romania        | Thermal stability of sartan class drugs   | PS3.19      |
| 20                       | Cernusca, Bianca               | Romania        | Layered divalent metal phosphonate - thermal stability studies  | PS3.20      |
| 21                       | Frone, Adriana Nicoleta        | Romania        | Photo-oxidative degradation of styrene-methyl vinyl ketone copolymers investigated by Thermal Analysis and FTIR Spectroscopy            | PS3.21      |
| 22                       | Frone, Adriana Nicoleta        | Romania        | Evaluation of natural photodegradability of polymer bio-composites based on PLA/PBAT blends with agricultural by-products               | PS3.22      |

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| 23 | Ivan, Raluca             | Romania     | Hybrid Materials for Environmental Applications   | PS3.23 |
| 24 | Moldovan, Antoniu        | Romania     | Topography detection using electric forces in Kelvin Probe force microscopy   | PS3.24 |
| 25 | Moldovan, Antoniu        | Romania     | PLD grown ceria nanopyrramids for testing AFM tip morphology  | PS3.25 |
| 26 | Precupas, Aurica         | Romania     | Calorimetric, spectroscopic and computational investigation of two polyphenols influence on Bovine Serum Albumin thermal stability                | PS3.26 |
| 27 | Sfirloaga, Paula         | Romania     | Addressing electrocatalytic activity of metal-substituted lanthanum manganite for the hydrogen evolution reaction                                 | PS3.27 |
| 28 | Sfirloaga, Paula         | Romania     | Revealing the impact of Ga/Y doping on the thermal and electrical behaviour in LaMnO <sub>3</sub> ceramics materials                              | PS3.28 |
| 29 | Wang, Shu-Xuan           | Taiwan      | Thermal properties of micronized <i>Tremella fuciformis</i> powder as a thickening agent for pineapple fruit fillin                               | PS3.29 |
| 30 | Wu, Yao-Chien            | Taiwan      | Microcalorimetric study of the effect of ionic liquid on the growth and ethanol production of thermotolerant yeast <i>Kluyveromyces marxianus</i> | PS3.30 |
| 31 | Begovic, Tajana          | Croatia     | The influence of surface charging on dissolution and crystal growth of fluorite   | PS3.31 |
| 32 | Kovacevic, Davor         | Croatia     | Polyelectrolyte multilayers as a versatile tool for biomedical applications   | PS3.32 |
| 33 | Usurelu, Catalina-Diana  | Romania     | Thermal and thermo-mechanical performances of PLA modified with low molecular weight biopolyesters  | PS3.33 |
| 34 | Usurelu, Catalina-Diana  | Romania     | Surface modified cellulose nanocrystals as potential fillers in bio-based epoxy systems   | PS3.34 |
| 35 | Thalmaier, Gyorgy        | Romania     | Circularity of aluminium sawing chips as thermal conductivity enhancement in PCM composite for application in clay bricks                         | PS3.35 |
| 36 | Holjevac Grguric, Tamara | Croatia     | The effect of Ag addition on the martensitic transformation of Cu-Al-Mn SMA alloys  | PS3.36 |
| 37 | Holjevac Grguric, Tamara | Croatia     | Effect of silk fibroin on the properties of electrospun PLA/silk fibroin scaffolds  | PS3.37 |
| 38 | Jiang, Lin               | China       | Research on the thermal degradation of different particle size in two different atmospheres   | PS3.38 |
| 39 | Li, Mi                   | China       | Development of bench-scale combustion model for three different woods based on the measured thermal-physical parameters                           | PS3.39 |
| 40 | Zhang, Dan               | China       | Thermal Degradation Kinetics and Mechanisms of Polyformaldehyde under Inert and Oxidizing Atmospheres   | PS3.40 |
| 41 | Zhang, Dan               | China       | Pyrolysis behaviour of 5AT with multiple particle sizes in air atmosphere   | PS3.41 |
| 42 | Kim, Seong-Jong          | South Korea | DL-EPR test optimization for AL-6XN using Taguchi method  | PS3.42 |