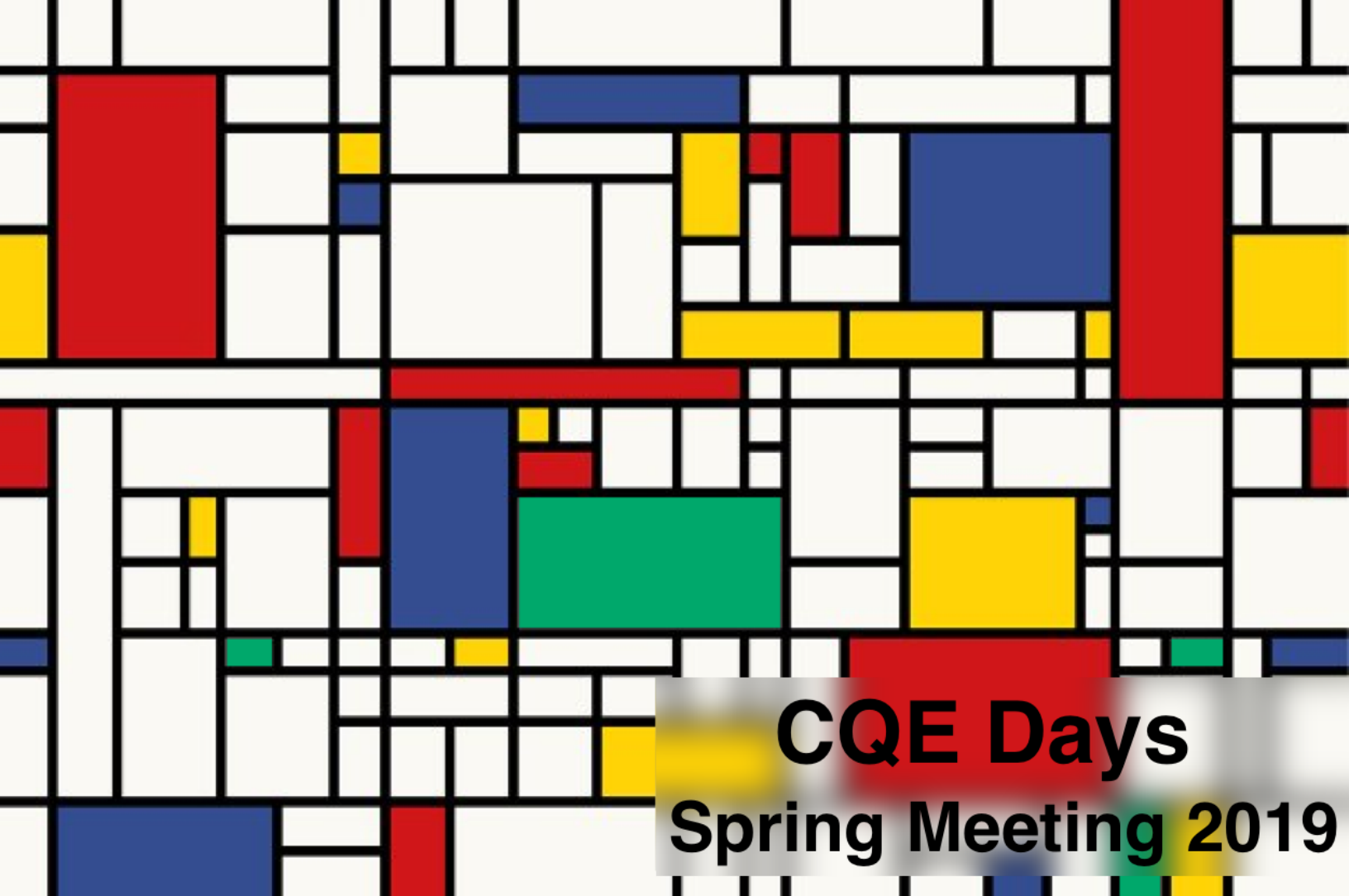




# CQE Days

## Spring Meeting 2019



# ABSTRACTS BOOK

KEYNOTE, ORAL & POSTER

# Overall Programme – Presentations

| Thursday– May, 30 |                                | Friday– May, 31 |                                           |
|-------------------|--------------------------------|-----------------|-------------------------------------------|
| 8:30              | Registration                   |                 |                                           |
| 9:00              | Opening                        | 9:15            | Registration                              |
| 9:30              | <b>MATSoft</b><br>Ferreira, P. | 9:30            | <b>MEDLife</b><br>Capelo-Martinez, J.     |
| 10:15             | Bacariza, M.C.                 | 10:15           | Mahmudov, K.                              |
| 10:30             | Cruz, T.                       | 10:30           | Figueira, C.                              |
| 10:45             | Coffee Break & Poster Session  | 10:45           | Coffee Break & Poster Session             |
| 11:30             | Andrade, M.                    | 11:30           | Valente, A.                               |
| 11:45             | Correia, I.                    | 11:45           | Rosado, P.                                |
| 12:00             | Carmona, B.                    | 12:00           | Upadhyay, K.                              |
| 12:15             | Folhas, D.                     | 12:15           | Gonçalves, J.                             |
| 12:30             | Adán-Más, A.                   | 12:30           | Lunch                                     |
| 12:45             | Lunch                          |                 | Poster Session                            |
|                   | Poster Session                 | 14:00           | <b>SUSChem</b><br>Domingos, T.            |
| 14:15             | <b>SYNCat</b><br>Piñeiro, M.   | 14:45           | Esteves, C.                               |
| 15:00             | Paulo, P.                      | 15:00           | Calado, P.                                |
| 15:15             | Reis, M.                       | 15:15           | Coffee Break & Poster Session             |
| 15:30             | Cristino, A.                   | 15:45           | Round Table<br>Transversality in Research |
| 15:45             | Teixeira, P.                   |                 |                                           |
| 16:00             | Coffee Break & Poster Session  | 17:00           | Awards                                    |
| 16:45             | Mestre, A.                     | 17:15           | Concluding Remarks                        |
| 17:00             | Barros, J.                     | 17:30           |                                           |
| 17:15             | Queirós, C.                    |                 |                                           |
| 17:30             |                                |                 |                                           |

## Oral Presentations

## Thursday Morning – May, 30

|       |                                                                                                                                                    |                            |
|-------|----------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|
| 9:00  | Opening Ceremony                                                                                                                                   | (José Nuno Canongia Lopes) |
| 9:30  | Keynote Session 1: K1 Ferreira                                                                                                                     | (chair: Montemor)          |
| 9:30  | <b>MATSoft - Materials, Soft Matter and NanoChemistry</b><br>Fátima Montemor                                                                       |                            |
| 10:15 | <b>Understanding Nanoparticles by Advanced Transmission Electron Microscopy</b><br>Paulo Ferreira                                                  | K1                         |
| 10:15 | Oral Session 1                                                                                                                                     | (chair: Montemor)          |
| 10:15 | <b>Zeolites as easily tunable materials for satisfying CO<sub>2</sub> methanation conditions</b><br>Carmen Bacariza Rey                            | O1                         |
| 10:30 | <b>Reactivity of 2-iminopyrrolyl iron and cobalt complexes with a super hydride as a catalytic hydroboration mechanistic insight</b><br>Tiago Cruz | O2                         |
| 11:30 | Oral Session 2                                                                                                                                     | (chair: Montemor)          |
| 11:45 | <b>Porous carbon materials: catalysts for cyclohexane oxidation</b><br>Marta Amaral Andrade                                                        | O3                         |
| 12:00 | <b>New metal complexes for therapeutic applications</b><br>Isabel Correia                                                                          | O4                         |
| 12:15 | <b>TBCCD1: a new player in the development of ciliopathies?</b><br>Bruno Carmona                                                                   | O5                         |
| 12:30 | <b>Structural characterization of dissolved organic matter in permafrost peatland lakes</b><br>Diogo Tavares Antão Folhas Ferreira                 | O6                         |
| 12:45 | <b>On the growth of Co foams by dynamic hydrogen bubble template electrodeposition</b><br>Alberto Adán-Más                                         | O7                         |

## Thursday Afternoon– May, 30

|       |                                                                                                                                                                             |                         |
|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|
|       | <b>Keynote Session 2: K2 Piñeiro</b>                                                                                                                                        | <b>(chair: Martins)</b> |
| 14:15 | <b>SYNCat - Synthesis, Catalysis and Reactivity</b><br>Luísa Martins                                                                                                        |                         |
| 15:00 | <b>Sustainable Synthesis of N-heterocycles</b><br>Marta Piñeiro                                                                                                             | K2                      |
|       | <b>Oral Session 3</b>                                                                                                                                                       | <b>(chair: Martins)</b> |
| 15:00 | <b>Enhanced Fluorescence in Gold Nanorods Conjugated with Dye-Labeled DNA's</b><br>Pedro Miguel Neves Ribeiro Paulo                                                         | O8                      |
| 15:15 | <b>The influence of the liquid phase content and presence of polymeric additives on the properties of a calcium phosphate bone cement</b><br>Marta Maria Machado Reis       | O9                      |
| 15:30 | <b>Vapor Liquid Equilibrium on water+alcohols systems: the evolution of a 25 years old flow apparatus</b><br>Ana Filipa Russo de Albuquerque Cristino                       | O10                     |
| 15:45 | <b>Performance of CaO-based sorbents for Calcium-Looping CO<sub>2</sub> capture: waste resources,natural and synthetic materials</b><br>Paula Alexandra Lourenço Teixeira   | O11                     |
| 16:00 |                                                                                                                                                                             |                         |
|       | <b>Oral Session 4</b>                                                                                                                                                       | <b>(chair: Martins)</b> |
| 16:45 | <b>Novel environmental-friendly activated carbons for enhanced pharmaceuticals removal from wastewaters: contributions of LIFE IMPETUS project</b><br>Ana Sofia Dias Mestre | O12                     |
| 17:00 | <b>N-Acetylgalactosamine mimetics as potential protein-protein interaction inhibitors in Alzheimer's disease and other applications</b><br>João Manuel de Barros            | O13                     |
| 17:15 | <b>A new type of sustainable heat transfer fluids</b><br>Carla Queirós                                                                                                      | O14                     |
| 17:30 |                                                                                                                                                                             |                         |

## Friday Morning – May, 31

|       |                                                                                                                                                              |  |                  |
|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------------|
|       | <b>Keynote Session 3: K3 Capelo-Martinez</b>                                                                                                                 |  | (chair: Marques) |
| 9:30  | <b>MEDLife - Medicinal and Biological Chemistry for Health</b><br>Matilde Marques                                                                            |  |                  |
| 10:15 | <b>Biochemdicine: A new concept for the XXI century</b><br>José-Luis Capelo-Martinez                                                                         |  | K3               |
|       | <b>Oral Session 5</b>                                                                                                                                        |  | (chair: Marques) |
| 10:15 | <b>Intramolecular Noncovalent Interactions in Synthesis and Catalysis</b><br>Kamran Mahmudov                                                                 |  | O15              |
| 10:30 | <b>Ni(II) homogeneous catalysts for the synthesis of hyperbranched polyethylene</b><br>Cláudia A. Figueira                                                   |  | O16              |
| 10:45 |                                                                                                                                                              |  |                  |
|       | <b>Oral Session 6</b>                                                                                                                                        |  | (chair: Marques) |
| 11:30 | <b>Novel ruthenium complexes as potent anticancer agents: strategies for targeted therapy</b><br>Andreia Valente                                             |  | O17              |
| 11:45 | <b>New matrixes for protein immobilization in enzymatic drug transformations</b><br>Pedro da Conceição Rosado                                                |  | O18              |
| 12:00 | <b>Microwave Plasma Based Bulk Scale Synthesis of N-Doped Graphene And Its Application As Conductive Scaffold For Supercapacitors</b><br>Kush Kumar Upadhyay |  | O19              |
| 12:15 | <b>Hybrid Mesoporous Nanoparticles for pH-Actuated Controlled Release</b><br>José Luís Martins Gonçalves                                                     |  | O20              |
| 12:30 |                                                                                                                                                              |  |                  |

## Friday Afternoon – May, 31

|       |                                                                                                                                                    |                            |
|-------|----------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|
|       | Keynote Session 4: K4 Domingos                                                                                                                     | (chair: Marrucho)          |
| 14:00 | <b>SUSChem - Sustainable Chemistry for the Environment, Energy and Manufacturing</b><br>Isabel Marrucho                                            |                            |
| 14:45 | <b>Understanding the relation between energy and economic growth: the key to sustainable development</b><br>Tiago Domingos                         | K4                         |
|       | Oral Session 7                                                                                                                                     | (chair: Marrucho)          |
| 14:45 | <b>The first steps of crystallization: aggregation of nicotinic and hydroxynicotinic acids in solution</b><br>Catarina Alexandra Veríssimo Esteves | O21                        |
| 15:00 | <b>C-glycosides synthesis towards its application as antimicrobial compounds</b><br>Patricia Ferreira Calado                                       | O22                        |
| 15:15 |                                                                                                                                                    |                            |
|       | Round Table – Transversality in Research                                                                                                           | (chair: Romão)             |
| 15:45 | <b>Instituto de Tecnologia Química e Biológica António Xavier – Universidade Nova de Lisboa</b><br>Carlos Romão                                    |                            |
|       | <b>Faculdade de Ciências – Universidade de Lisboa</b><br>Carlos Nieto de Castro                                                                    |                            |
|       | <b>Instituto de Tecnologia Química e Biológica António Xavier – Universidade Nova de Lisboa</b><br>Cristina Silva Pereira                          |                            |
|       | <b>Imperial College London</b><br>William Arnot Wakeham                                                                                            |                            |
| 17:00 | Awards                                                                                                                                             | (José Nuno Canongia Lopes) |
| 17:15 | Concluding Remarks                                                                                                                                 | (José Nuno Canongia Lopes) |
| 17:30 |                                                                                                                                                    |                            |

## Poster Presentations



## Thursday and Friday Coffee Break and Lunchtime – May, 30 and 31

| Poster Sessions                                                                                                                                                                                                                                                                                                                                   | (Claustro) |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| <b>Green method for the production inverse spinels</b><br>Beatriz M. Santos, Rute F. C. Faustino and Ana P. C. Ribeiro                                                                                                                                                                                                                            | P1         |
| <b>Synthesis of metallo-macrocyclic and coordination polymers with pyridine based amido-carboxylate ligand and their catalytic activities towards Henry and Knoevenagel reactions</b><br>Anirban Karmakar, Guilherme M. D. M. Rúbio, M. Fátima C. Guedes da Silva and Armando J. L. Pombeiro                                                      | P2         |
| <b>Effect of alkyl substituent's on the biological activity of benzimidazole-based Schiff base copper(II) complexes</b><br>Anup Paul, Sallemuthu Anbu, Gunjan Sharma, Maxim L. Kuznetsov, Biplob Koch, M. Fátima C. Guedes da Silva and Armando J. L. Pombeiro                                                                                    | P3         |
| <b>Synthesis and structures of Al(III), Fe(III) and Cu(II) formazanates</b><br>Atash V. Gurbanov, M. Fátima C. Guedes da Silva, Kamran T. Mahmudov and Armando J.L. Pombeiro                                                                                                                                                                      | P4         |
| <b>Solvent-free synthesis of copper benzene-1,3,5-tricarboxylate <math>\text{Cu}_3(\text{BTC})_2(\text{H}_2\text{O})_3 \cdot 10\text{H}_2\text{O}</math> and <math>\text{Cu}_2(\text{OH})(\text{BTC})(\text{H}_2\text{O}) \cdot 2\text{H}_2\text{O}</math> by ball milling</b><br>Célia Aissani, Elisabete C. B. A. Alegria and Ana P. C. Ribeiro | P5         |
| <b>Sustainable Iron(II) scorpionate for the synthesis of cyclic carbonates</b><br>Erivaldo J.C. Lopes, Ana Paula C. Ribeiro and Luisa Margarida D.R.S. Martins                                                                                                                                                                                    | P6         |
| <b>Dye sensitized solar cells based on porphyrins</b><br>Gabriel F. Gika, Francisco M. Ferraz, Joana M. D. Calmeiro, Leandro M. O. Lourenço, Cláudia C. L. Pereira and João P. C. Tomé                                                                                                                                                            | P7         |
| <b>Catalytic activity of carbon supported Cu(I) complexes for the synthesis of 1,2,3-triazoles</b><br>Ivy L. Librando, Abdallah G. Mahmoud, Sónia A.C. Carabineiro, Carlos F.G.C. Geraldès, M. Fátima C. Guedes da Silva and Armando J.L. Pombeiro                                                                                                | P8         |
| <b>Design, Synthesis and Application of novel Tetrazolyl- and Thiadiazolyl-Benzisothiazole Derivatives as Dynamic Multidentate Nitrogen Ligands in Catalysis and Selective Chelating Agents for Metals in Biological Medium</b><br>Luís M. T. Frija and Armando L. Pombeiro                                                                       | P9         |
| <b>Cu(II)-Aroylhydrazones: Syntheses and Catalytic C-H functionalization</b><br>Manas Sutradhar                                                                                                                                                                                                                                                   | P10        |
| <b>Photoimmunoconjugates to treat Cancer and Age-related Macular Degeneration by Photodynamic Therapy</b><br>Sandra Beirão, Sara R. G. Fernandes, Bruno Sarmento, Rosa Fernandes and João P. C. Tomé                                                                                                                                              | P11        |
| <b>Catalytic applications of Cu(II) complexes towards microwave-assisted peroxidative oxidation of toluene and 1-phenylethanol</b><br>Tannistha Roy Barman, Manas Sutradhar, Elisabete C.B.A. Alegria, Francesco Scorcelletti, M. Fátima C. Guedes da Silva and Armando J. L. Pombeiro                                                            | P12        |
| <b>Nanostructures for CO<sub>2</sub> removal, fuels production and development of new energy sources</b><br>Ana C. Ferreira, Fábio Vieira, Ricardo Silva, António P. Gonçalves and Joaquim Branco                                                                                                                                                 | P13        |
| <b>Ln-based Compounds Applications in Magnetism and Optical Sensing</b><br>Bernardo Monteiro, Joaquim Marçalo, João P. Leal, Joana T. Coutinho, Laura C.J. Pereira, Manuel Almeida, Cláudia C.L. Pereira, Tiago Moreira, Mani Outis, César T. Laia, Filipe A.A. Paz, Ricardo F. Mendes and José J. Baldovi                                        | P14        |

## Thursday and Friday Coffee Break and Lunchtime – May, 30 and 31

| Poster Sessions                                                                                                                                                                                                                                                                          | (Claustro) |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| <b>Gas-Phase Ion Chemistry Studies with <i>p</i>-, <i>d</i>- and <i>f</i>-Elements</b><br>Bernardo Monteiro, João P. Leal, Joaquim B. Branco, Joaquim Marçalo, José M. Carretas, Leonor Maria and Sandrina Oliveira                                                                      | P15        |
| <b>Rare earth recovery and valorisation / Protection of environment</b><br>Cruz A, Monteiro B, Galinha C, Paiva I, Leal JP, Marçalo J, Carretas JM, Maria L, Araújo MF, Gomes SS and Bento B                                                                                             | P16        |
| <b>Non-aqueous uranium coordination chemistry: uranium complexes supported by hydrobis(mercaptoimidazolyl)borates</b><br>Leonor Maria, Joaquim Marçalo, Isabel C. Santos and Adelaide Cruz                                                                                               | P17        |
| <b>Cyclams: A Novel Class of Antibacterial and Antitumoral Compounds</b><br>Luis G. Alves, Adhan Pilon, Sergi Rodriguez-Calado, João F. Portel, Sílvia A. Sousa, Olga Ferreira, Andreia Valente, Julia Lorenzo, Elisabete Silva, Ana M. Martins and Jorge H. Leitão                      | P18        |
| <b>Characterization and interaction with Albumin of 3-hydroxyl-2-naphthoylhydrazones oxidovanadium(IV) complexes</b><br>Nádia Ribeiro, Filipa Ramilo-Gomes, Adelino M. Galvão, Clara Gomes, João Costa Pessoa, Isabel Correia                                                            | P19        |
| <b>New polymer-ruthenium cyclopentadienyl-porphyrin conjugates for photodynamic therapy of cancer</b><br>Adhan Pilon, José Almeida, Maria Rangel, Ana M. G. Silva, M. Helena Garcia and Andreia Valente                                                                                  | P20        |
| <b>Synthesis and characterization of a new family of ruthenium(II) complexes with phenantroline derivated ligands for anticancer applications</b><br>Margarida P. Pereira, João Franco Machado, M. Fátima M. Piedade, M. Helena Garcia and Tânia S. Morais                               | P21        |
| <b>New selective Copper(I) complexes for prostate cancer cells</b><br>João Franco Machado, Fernanda Marques, M. Fátima M. Piedade, Maria J. Villa de Brito, M. Helena Garcia and Tânia S. Morais                                                                                         | P22        |
| <b>Exploratory Analysis of pH Reference Materials for Quality Control Acceptance by Chemometrics algorithms</b><br>Salib M, Easley R, Rocha W and Cavaco I                                                                                                                               | P23        |
| <b>New Donepezil Mimetic Hybrids As Potential Multi-Target Anti-Alzheimer'S Disease Agents</b><br>Marina Costa, Federica Rinaldo, Romane Josselin, Luca Piemontese, Diana Silva, Sandra M. Cardoso, Sílvia Chaves and M. Amélia. Santos                                                  | P24        |
| <b>Synthesis of half-sandwich ruthenacarboranes complexes incorporating <i>N</i>-donor ligands as eminent candidates for Boron Neutron Capture Therapy</b><br>Ricardo G. Teixeira, Xavier F. Gubau, Fernanda Marques, M. Paula Robalo, M. Helena Garcia, Clara Viñas and Andreia Valente | P25        |
| <b>Homooxalixarene-Based Fluorescent Sensors: Synthesis and Relevant Anion Recognition</b><br>Miranda A S, Marcos P M, Ascenso J R and Berberan-Santos M N                                                                                                                               | P26        |
| <b>New sustainable approaches to the synthesis of 1,2- and 1,4-naphthoquinones</b><br>M. Paula Robalo, Lígia O. Martins and Ana Catarina Sousa                                                                                                                                           | P27        |
| <b>Sustainable synthesis of important intermediates for the pharmaceutical industry from biomass resources</b><br>Caetano J. A. T., Isca V. M. S. and Fernandes A. C.                                                                                                                    | P28        |

## Thursday and Friday Coffee Break and Lunchtime – May, 30 and 31

| Poster Sessions                                                                                                                                                                                                                                               | (Claustro) |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| <b>Identification of toxic compounds used to kill domestic animals in forensic context</b><br>Ana Patrícia Abreu, Andrea Alexandre, Maria João Caldeira and Alexandra M. M. Antunes                                                                           | P29        |
| <b>Synthetic Cathinones: Metabolite Profile by High Resolution Mass Spectrometry</b><br>Beatriz Teixeira Lopes, Maria João Caldeira, Helena Gaspar and Alexandra M. M. Antunes                                                                                | P30        |
| <b>Montelukast metabolism – Mass Spectrometry approach in metabolic studies</b><br>C. F. Marques, G. C. Justino and M. M. Marques                                                                                                                             | P31        |
| <b>A workflow for drug metabolism MS studies with data-independent analysis</b><br>Marques CF, Pinheiro PF, Marques MM, Oliveira MC and Justino GC                                                                                                            | P32        |
| <b>Mass Spectrometry in Strategic Areas of CQE's Research</b><br>M. Conceição Oliveira                                                                                                                                                                        | P33        |
| <b>Functional interactions of the ciliopathy-involved protein KIAA0753 with the regulator of centrosome positioning TBCCD1</b><br>Ferreira DC, Carmona B, Nolasco, S, Marinho, HS and Soares H                                                                | P34        |
| <b>Targeting Epigenetics in Cancer: Design and biological evaluation of EZH2 inhibitors</b><br>Filipa Ramilo-Gomes, Sharon D. Bryant, Riccardo Martini, Thierry Langer, Sheraz Gul, Luís Sobral, M. Matilde Marques and Rita C. Guedes                        | P35        |
| <b>Tetracopper(II) Cores Driven by an Unexplored Trifunctional Aminoalcohol Sulfonic Acid for Mild Catalytic C–H Functionalization of Alkanes</b><br>Inês F. M. Costa, Marina V. Kirillova, Vânia André, Tiago A. Fernandes and Alexander M.                  | P36        |
| <b>Camphor complexes with antimicrobial and/or cytotoxic properties: design, synthesis and assessment of biological activity</b><br>M Fernanda NN Carvalho and Joana P. Costa                                                                                 | P37        |
| <b>Gamma irradiation of clove: Level of Trapped Radicals and Effects on Bioactive Composition</b><br>Elvira M. Gaspar, José C. Santana, Pedro M. P. Santos, João P. Telo and Abel J. S. C. Vieira                                                             | P38        |
| <b>Mixed valence radical anions of 4,4"-dinitro-p-terphenyl and its aza-derivatives as models for electronic communication in conducting polymers</b><br>João P. Telo and M. Fernanda N. N.                                                                   | P39        |
| <b>A Metabolomics-based Workflow to Identify Protein Covalent Modifications</b><br>João Nunes, Catarina Charneira, Sofia Gouveia-Fernandes, Jacinta Serpa, Judit Morello and Alexandra M. M. Antunes                                                          | P40        |
| <b>NMR in Strategic Areas of CQE's Research</b><br>M.J.Ferreira and José R. Ascenso                                                                                                                                                                           | P41        |
| <b>Inducing the activity of NK cells with NKp30 small organic ligands</b><br>Pedro F. Pinheiro, Gonçalo C. Justino, Joana P. Miranda and M. Matilde Marques                                                                                                   | P42        |
| <b>Structure-based virtual screening validation toward Hexokinase 2 inhibitors: targeting metabolism and apoptosis signaling in cancer cells</b><br>Sara N. Garcia, Rita C. Guedes and M. Matilde Marques                                                     | P43        |
| <b>Mechanochemically built bio-inspired metalorganic frameworks as a tool to improve drugs' efficiency</b><br>Sílvia Quaresma, Vânia André, Catarina Bravo, Paula Marques, Filipa Galego, André Ramires Ferreira da Silva, Marta Martins and M. Teresa Duarte | P44        |

## Thursday and Friday Coffee Break and Lunchtime – May, 30 and 31

| Poster Sessions                                                                                                                                                                                                                                  | (Claustro) |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| <b>X-ray diffraction in Strategic Areas of CQE's Research</b><br>Teresa Duarte                                                                                                                                                                   | P45        |
| <b>Bioinspired Copper(II) Aminoalcohol Complexes and Coordination Polymers: Self-assembly Synthesis, Structural Features and Catalysis</b><br>Tiago A. Fernandes, Marina V. Kirillova, Carla I. M. Santos, Vânia André and Alexander M. Kirillov | P46        |
| <b><i>In vitro</i> Stability Studies of Oxazoloisoindolinones SLMP53-1 and DIMP53-1, two Tryptophanol-derived p53 Activators</b><br>Barcherini V, Antunes AMM and Santos MMM                                                                     | P47        |
| <b>Exploring crystal engineering to revive old drugs</b><br>Vânia André, Fátima Minas da Piedade, João Luís Ferreira da Silva, Inês Martins, Sofia Domingos, Mariama Djaló, Martin Zabransky, Merve Arpacioğlu and M. Teresa Duarte              | P48        |
| <b>Hydrogen peroxide as a key player in bystander effects</b><br>Pinto V, Carmona B, Antunes F, Marinho HS, Vieira L and Soares H                                                                                                                | P49        |
| <b>Synthesis and characterization of rGO/M 2wt%-N co-doped (M=Co, Fe, Mn, Ni, Cu and Rh) as abiotic electrocatalyst for oxygen reduction reaction</b><br>Alves A. C., Correia J. P, Dubois L. and Zebda A.                                       | P50        |
| <b>Microporous materials for the storage and therapeutical release of H<sub>2</sub>S</b><br>Fernandes A C, Cambaio B, Batista M, Mafra L, Rocha J, Pinto M L, Antunes F and Pires J                                                              | P51        |
| <b>Poly(vinyl alcohol) hydrogels for cartilage replacement: impact of processing conditions on the materials properties</b><br>A. S. Oliveira, O. Seidi, R. Colaço and A. P. Serro                                                               | P52        |
| <b>Optimization of metal loaded hierarchical zeolite structures MOR, BEA and MFI for catalytic oxidation reactions</b><br>Leonardo Ansari, Ana P. Carvalho, Luisa M.D.R.S. Martins and Angela Martins                                            | P53        |
| <b>Ocean Acidification - Study of the carbonate system in seawaters from the Portuguese Coast</b><br>B. Anes, C. M. Oliveira, R.B. Silva and M. F. Camões                                                                                        | P54        |
| <b>Synthesis and photocatalytic application of novel diethylenetriamine modified titanate nanotubes for emergent pollutants degradation</b><br>B. Barrocas, M. Conceição Oliveira and O.C. Monteiro                                              | P55        |
| <b>Characterization Of Atmospheric Aerosol Of A Medium Size City In Brazil</b><br>Bruno T. Franzin, Fernando L. Fertonani and Cristina M. R. R Oliveira                                                                                          | P56        |
| <b>Evaluation of tannins as green corrosion prevention inhibitors in AA2024-T3 aluminium alloy used in aerospace industry</b><br>C. Sofia Proença, M. Eduarda Araújo and Jorge Correia                                                           | P57        |
| <b>Insights on the occurrence and transport of Pt and Rh in Tagus estuary region, SW Europe: from urban into the aquatic system</b><br>Carlos E. Monteiro and Margarida Correia dos Santos                                                       | P58        |
| <b>Supported semiconductor nanocatalysts for environmental remediation and radiation sensing</b><br>Catarina Santos, André Lima, O.C. Monteiro and V.C. Ferreira                                                                                 | P59        |

## Thursday and Friday Coffee Break and Lunchtime – May, 30 and 31

| Poster Sessions                                                                                                                                                                                                                                          | (Claustro) |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| <b>Ionic composition and balances of seawaters from different locations, assessed by Ion Chromatography</b><br>C. M. Oliveira, B. V. Anes, R.B. Silva and M. F. Camões                                                                                   | P60        |
| <b>Use Of Wastewater In The Irrigation Of Edible Vegetables: Evaluation Of The Risk Of Contamination By Toxic Metals</b><br>Hugo Félix Silva, Nelson F. Silva, M. Paula Robalo, José Coelho, Cristina Oliveira and Manuel Matos                          | P61        |
| <b>MONITOOL- new tools for water quality monitoring</b><br>Inês Carvalho <sup>1</sup> , M. Correia dos Santos                                                                                                                                            | P62        |
| <b>Insights of Sorbent Selectivity and pH Effects on Bar Adsorptive Microextraction</b><br>J.M.M. Praça, O.C. Gonçalves, S.M. Ahmad, N.R. Neng and J.M.F. Nogueira                                                                                       | P63        |
| <b>Electropolymerization of catecholamines with tunable properties for biosensing</b><br>Almeida LC, Correia RD, Duarte JN, Taranta R, Correia JP and Viana AS                                                                                           | P64        |
| <b>C-dots based nanocomposites materials for the photodegradation of organic pollutants</b><br>Luísa D. Chiavassa, António J. Silvestre, José V. Prata and Olinda C. Monteiro                                                                            | P65        |
| <b>Unified pH scale for all solvents/Meaning and assessment of pH in solvents other than water</b><br>M. F. Camões, B. V. Anes, C. R. Oliveira and R.B. Silva                                                                                            | P66        |
| <b>Development of an Analytical Method for the Determination of 6 Tricyclic Antidepressants in Biological Matrices</b><br>M.N. Oliveira, S.M. Ahmad, N.R. Neng and J.M.F. Nogueira                                                                       | P67        |
| <b>Synthesis and characterization of low-cost adsorbent materials from glycerol</b><br>Mary Batista, Isabel Fonseca and Ana P. Carvalho                                                                                                                  | P68        |
| <b>An electrochemical biosensor for toxic amides determination in food and environmental samples: Optimizing the bioreceptor immobilization procedure and materials</b><br>Nelson A. Silva, Maria M. Rocha, Amin Karmali, Hugo Silva and Manuel J. Matos | P69        |
| <b>Extracting more information from research in chemistry: The multidisciplinary evaluation of data uncertainty</b><br>Ricardo Bettencourt da Silva                                                                                                      | P70        |
| <b>Hydrogen transfer reactions of Nitro Compounds using MoS<sub>2</sub>/Titanate Nanotubes as Catalyst</b><br>Olinda C. Monteiro, Carla D. Nunes and Rita N. Sales                                                                                       | P71        |
| <b>Mercury cycling in a Portuguese mesotidal ecosystem, Tagus estuary: Water column chemistry and transport</b><br>Rute Cesário, João Canário and Marta Nogueira                                                                                         | P72        |
| <b>High Throughput Bar Adsorptive Microextraction (HT-BA<math>\mu</math>E) – Application for monitoring nicotine and cotinine in large number of urine samples</b><br>S.M. Ahmad and J.M.F. Nogueira                                                     | P73        |
| <b>Analysis of the Aroma Profile of Wines Samples by Headspace using Novel Microextraction Techniques</b><br>S.C.F. Amorim, S.M. Ahmad, N.R. Neng and J.M.F. Nogueira                                                                                    | P74        |
| <b>Bioinspired polymers for the development of optical immunosensors</b><br>Frade T, Almeida LC, Niu Y, Jin G, Correia JP and Viana AS                                                                                                                   | P75        |

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| <b>Microplastics in the marine environment: Raise awareness and challenges</b><br>Vanessa Morgado, Carla Palma and Ricardo B. Silva                                                                                                          | P76        |
| <b>Natural fibers modification with metal chalcogenides nanoparticles with photocatalytic properties for pollutants degradation</b><br>Inês Ferreira, O. C. Monteiro and Virgínia C. Ferreira                                                | P77        |
| <b>Development of consolidation products to carbonate stones from built heritage</b><br>B. Sena da Fonseca, A. P. Ferreira Pinto, S. Piçarra and M.F. Montemor                                                                               | P78        |
| <b>Novel Corrosion Inhibition Strategy for Mild Steel</b><br>L. M. Calado, M. Attaei, A. C. Marques and M. F. Montemor                                                                                                                       | P79        |
| <b>In-situ electrochemical and fiber-optic micro-sensors: traditional and novel applications, limitations, challenges</b><br>Taryba M, Adan Mas A. and Montemor M.F                                                                          | P80        |
| <b>On the preparation of metallic Co foams based nanocomposites as electrodes for energy storage devices</b><br>Arévalo-Cid P. , Adán-Más A. , Montemor M.F. and Silva T. M.                                                                 | P81        |
| <b>Electrochemical Frequency Modulation technique to study the corrosion behaviour of magnesium alloy AZ31 in acidic solutions containing corrosion inhibitors</b><br>Yegor Morozov, Lénia Calado and M. Fátima Montemor                     | P82        |
| <b>Sphingolipid domains in yeast: Linking membrane biophysical properties and action of antifungal agents</b><br>Andreia Bento-Oliveira, Joaquim T. Marquês, C.A.C. Antunes, Filipa C. Santos, H. Susana Marinho and Rodrigo F.M. de Almeida | P83        |
| <b>Europium doped carbon dots for radiometric sensing of metal ions in biological media</b><br>C. Filipa O. Correia, Ermelinda Maçôas and José G. M. Martinho                                                                                | P84        |
| <b>Lighting the mitochondria with Two-photon red-emitting cationic molecules</b><br>Inês F. A. Mariz, Sandra C. Pinto, Ana M. Cuadro, Juan J. Vaquero, José M. G. Martinho and Ermelinda M. S. Maçôas                                        | P85        |
| <b>Non-iridescent tunable spherical colloidal photonic pigments</b><br>Laurinda R.P. Areias and José Paulo S. Farinha                                                                                                                        | P86        |
| <b>Green methodologies in the preparation of new photoactive MOFs for energy applications</b><br>Márcia R., Hermenegildo G., M.Teresa D. and C. Baleizão                                                                                     | P87        |
| <b>Boron: Optical Detection and Scavenging Materials for Wastewater Remediation</b><br>Sérgio Alves, Laurinda Areias, Federica Albertini, Tânia Ribeiro, José Paulo S. Farinha and Carlos Baleizão                                           | P88        |
| <b>Water-borne smart polymer nanoparticles for high-performance applications</b><br>Tiago D. Martins, Carlos Baleizão and José Paulo S. Farinha                                                                                              | P89        |
| <b>Porphyrinoid functionalized Polyelectrolyte Microcapsules: recent advances</b><br>Vanda Vaz Serra, Sofia Serra, Pedro M. R. Paulo, Nuno G. B. Neto, and Silvia S.M.B.Costa                                                                | P90        |

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| <b>Viscosity measurements of compressed ionic liquid EMIM Otf</b><br>Maria C. M. Sequeira, Helena M. N. T. Avelino, Fernando J. P. Caetano and João M. N. A. Fareleira                                                                                                                                                | P91        |
| <b>Studying the PEG family</b><br>Maria C. M. Sequeira, Helena M. N. T. Avelino, Fernando J. P. Caetano and João M. N. A. Fareleira                                                                                                                                                                                   | P92        |
| <b>The influence of glaze on the tribological properties of zirconia dental pieces obtained by subtractive and additive manufacturing</b><br>A.C. Branco, M. Polido, R. Colaço, C.G. Figueiredo-Pina and A.P. Serro                                                                                                   | P93        |
| <b>Poly(ionic liquid)/ionic liquid membranes with fluorosulfonyl derivative anions: characterization and CO<sub>2</sub>/H<sub>2</sub> separation</b><br>Andreia S. L. Gouveia, Alexander S. Shaplov, Liliana C. Tomé and Isabel M. Marrucho                                                                           | P94        |
| <b>Innovative Materials for Nitric Oxide Adsorption and Therapeutic Release</b><br>Rosana V. Pinto, Ana Sofia Oliveira, Moisés L. Pinto and João Pires                                                                                                                                                                | P95        |
| <b>Thermal Stability of Choline Chloride-Ethylene Glycol Eutectic Mixtures: What DSC Tells Us</b><br>Beatriz Esteves Castelo Branco, Filomena Martins, Hermínio Diogo                                                                                                                                                 | P96        |
| <b>Modeling Preferential Solvation in Acetonitrile-Water Mixtures Using Kinetic Probes</b><br>Beatriz Pena, Luís Moreira and Filomena Martins                                                                                                                                                                         | P97        |
| <b>Sulfalene: A Case Study on the Polymorphism of APIs</b><br>C. S. D. Lopes, C. E. S. Bernardes and M. E. Minas da Piedade                                                                                                                                                                                           | P98        |
| <b>Diclofenac sustained release using an LbL coated silicon-based hydrogel</b><br>Diana Silva, Hermínio C. de Sousa, Maria Helena Gil, Carmen Alvarez-Lorenzo, Benilde Saramago and Ana Paula Serro                                                                                                                   | P99        |
| <b>Supramolecular organization of Perfluoroalkylalkanes - primitive surfactants – using the SAFT-g force field</b><br>Beatriz Forte, Simão Pereira, Gonçalo M. C. Silva, Pedro Morgado, Amparo Galindo, George Jackson and Eduardo J. M. Filipe                                                                       | P100       |
| <b>Ionic liquids Gels: structure - properties relations</b><br>Tiago M. Eusébio, Gonçalo M. C. Silva, Pedro Morgado, José Ascenso and Eduardo J. M. Filipe                                                                                                                                                            | P101       |
| <b>Evaluation of the vapor pressure of deep eutectic solvents for desulfurization applications</b><br>Lima F, Silvestre AJD, Branco L and Marrucho IM                                                                                                                                                                 | P102       |
| <b>Polymorphism Study in Fumaric Acid</b><br>Filipa M. Bernardes and Carlos E. S. Bernardes                                                                                                                                                                                                                           | P103       |
| <b>A Challenge, a Team, a Project: TARGTUB</b><br>Filomena Martins, Susana Santos, Marina Reis, Catarina Faria, Rodrigo Almeida, Joaquim Marquês, Diogo Vila-Viçosa, Bruno Victor, Pedro Lopes, Ruben Leitão, Maria Soledade Santos, Diogo Latino, Miguel Viveiros, Jorge Ramos, Diana Machado and Miguel Machuqueiro | P104       |
| <b>Structure, Dynamics and Properties of Ionic Liquids with Fluorinated Anions and Hydrogenated Cations</b><br>Gonçalo M. C. Silva, Pedro Morgado, Maria Jardim Beira, Pedro J. Sebastião and Eduardo J. M. Filipe                                                                                                    | P105       |

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| <b>A New Calorimetric Cell for Studies of Co-Crystal Energetics</b><br>I. O. Feliciano, C. E. S. Bernardes, C. Naese, F. Emmerling and M. E. Minas da Piedade                                                                                      | P106       |
| <b>Water - perfluoroalkyl alkanes interactions: solubility and liquid-liquid interfaces</b><br>João Barras, João Gaspar, Pedro Morgado, Amparo Galindo, George Jackson and Eduardo J. M. Filipe                                                    | P107       |
| <b>Supercritical Antisolvent Precipitation, a way to design particles</b><br>Luis C. S. Nobre, António M. F. Palavra, Mário J. F. Calvete, Carlos A. Nieto de Castro and Beatriz P. Nobre                                                          | P108       |
| <b>Co-crystals of Fumaric Acid Esters with Aminoacids</b><br>L. Pereira, M.F. M. Piedade and M. E. Minas da Piedade                                                                                                                                | P109       |
| <b>Natural Deep Eutectic Mixtures-Based Aqueous Biphasic Systems For Extraction Of Virus-Like Particles</b><br>Mateusz Marchel, Ana S. Coroadinha and Isabel M. Marrucho                                                                           | P110       |
| <b>Ionic Liquids Incorporating Nitrogen Units as Novel Lubricants or Oil Additive</b><br>M. Antunes, A.S. Campinhas, M. Sá Freire, P. M. Amorim, R. Colaço, L. C. Branco and B. Saramago                                                           | P111       |
| <b>Exploring the catalytic behavior of hierarchical BEA zeolite in Friedel-Crafts Acylation</b><br>Leonor Borbinha, Catarina Marranita, Ângela Martins, Nelson Nunes, Ruben Leitão and Filomena Martins                                            | P112       |
| <b>Surface tension of fluorinated alcohols and their mixtures with hydrogenated alcohols: experimental, soft-SAFT-DGT modeling and MD simulations</b><br>José Justino, Gonçalo M.C. Silva, Pedro Morgado, Lourdes Vega and Eduardo J.M. Filipe     | P113       |
| <b>Theoretical Study of Low Temperature Solid-Solid Phase Transitions in 4'-Hydroxyacetophenone</b><br>P. Tomaz Melo, C. E. S. Bernardes and M. E. Minas da Piedade                                                                                | P114       |
| <b>Adaptation to nutrient-limited media remains accurate at the cost of an increased energy dissipation</b><br>R. N. Bento, C. E. S. Bernardes, M. E. Minas da Piedade and F. Antunes                                                              | P115       |
| <b>Conformational Polymorphism in Molecular Organic Crystals: 4'-Hydroxyvalerophenone, as a Case Study</b><br>Ricardo G. Simões, Cátia S. D. Lopes, Carlos, E.S. Bernardes, M. Fátima M. Piedade, Hermínio P. Diogo and Manuel E. Minas da Piedade | P116       |
| <b>Exploring Solvent Properties of Hydrophobic Eutectic Mixtures</b><br>Ricardo J. Nunes, Isabel Marrucho and Filomena Martins                                                                                                                     | P117       |
| <b>Emulsions based on Hydrophobic Eutectic Mixtures</b><br>Ricardo J. Nunes, Benilde Saramago, Filomena Martins and Isabel M. Marrucho                                                                                                             | P118       |
| <b>Chemical and Thermal Study of the <i>Catostylus tagi</i> for the development of a new biopolymer</b><br>A.R.P. Gonçalves, M.J.V. Lourenço, J.C. Bordado, R. Galhano dos Santos and L. S. Gordo                                                  | P119       |
| <b>Synthesis of Theobromine Isonucleosides as Potential Cholinesterase Inhibitors</b><br>Margarida P. Pereira, Eduardo C. de Sousa, Anne Loesche, René Csuk and Nuno M. Xavier                                                                     | P120       |
| <b>Valorization of sugars obtained by liquefaction of lignocellulosic materials</b><br>Silva L. B., Galhano dos Santos R., Bordado J. C., Pinto, P. and Rauter A. P.                                                                               | P121       |