

Scientific Programme

Wednesday, July 24th, 2019

09:00 - 10:30 Registration

10:30 - 11:30 Opening Ceremony

Auditório Ferreira da Silva | Mestre de Cerimónia: Bárbara Costa (Universidade do Porto)

Prof. Sousa Pereira, Reitor da Universidade do Porto

Dr. Pedro Nuno Teixeira, Presidência da República - Consultor da Casa Civil para a Ciência e o Ensino Superior

Prof. Ana Cristina Freire, Diretora da FCUP

Prof. Artur Silva, Presidente da SPQ

Dr. Raúl Moreira, Diretor de Filatelia dos CTT (Philatelic Issuance of the International Year of the Periodic Table: 1st Day Stamp)

Prof. José Ferreira Gomes, Comissário Nacional para o AITP

Prof. Vitor Freitas, Organizador do XXVI EN SPQ

11:30 - 12:40 Ferreira da Silva 2018 Award Session

Auditório Ferreira da Silva | Chair: Artur Silva (Presidente SPQ, UA,PT)

Maria José Calhorda (FCUL, PT)

Pilgrimages in the Periodic Table

12:40 - 14:00 Lunch

Auditório Ferreira da Silva | Chair: Ana Isabel Ricardo (FCTUNL, PT)

14:00 Christopher Brett, IUPAC (FCTUC, PT)

14:15 PL1 | Martyn Poliakoff (U. Nottingham, UK)  
Mendeleev's Gift to Education (and to me)

AFS | Chair: Pedro Gois (FFUL, PT)

15:00 KN1 | Cristina Matos (ISEP, PT)  
REWATER: Sustainable and safe water management in agriculture: increasing the efficiency of water reuse for crop growth while protecting ecosystems, services and citizens' welfare

A1 | Chair: Luis Carlos (UA, PT)

KN2 | Luís Belchior (FCUP, PT)  
Nanostructuring effect on the physical chemical properties of ionic liquids

S1 | Chair: Marta Piñeiro (UC, PT)

KN3 | João Paulo André (U. Minho, PT)  
Poções e Paixões na Sala de Aula

15:30 IOC1 | Maria Lurdes Cristiano (UAIG, PT)  
Selective photochemistry of 5-aminotetrazole derivatives; effect of the saccharyl moiety on the photostability

OC4 | Luís Branco (FCTUNL, PT)  
Metal based Ionic Systems for Sustainability

IOC3 | José Moura (FCTUNL, PT)  
Building Artificial Enzymes Using the Metals of the Periodic Table

15:50 IOC2 | Iola Duarte (UA, PT)  
Modulation of macrophage metabolism by phytochemicals and biomaterials: insights from metabolomics

OC5 | João Avó (IST-UL, PT)  
Delayed Fluorescence Materials for Imaging Applications

OC9 | Sérgio Rodrigues (FCTUC, PT)  
Periodic Table and Theoretical and Computational Chemistry: a lesser-known link

16:10 OC1 | José Tavares (FCTUNL, PT)  
Nanoinmunoassays – Metal nanoparticles for sensitivity and Antibodies for specificity

OC6 | Paulo Martinho (FCUL, PT)  
The thermosensitive effect in Fe(III) salen spin labile complexes

OC10 | Natércia Teixeira (FCUP, PT)  
Study of five iberian medieval iron-gall inks obtained through the use of historically accurate reconstructions

16:25 OC2 | Hélio Albuquerque (UA, PT)  
Modulating protein aggregation in cell models using modified steroids

OC7 | Carina Crucho (IST-UL, PT)  
Enzyme-responsive silica nanocapsules

OC11 | Fernanda Carvalho (IST-UL, PT)  
Design and synthesis of silver camphorimine compounds with high antimicrobial activity

16:40 OC3 | Nuno Alves (FCTUNL, PT)  
Understanding the mechanism of action of a new spiro- $\beta$ -lactam with dual anti-HIV and anti-Plasmodium activity using in silico target fishing

OC8 | Luís Silva (FCUP, PT)  
Porous Metal-Organic Framework based materials for sustainable catalytic applications

OC12 | José Araújo (FCUP, PT)  
"Química ao pé da letra": das raízes etimológicas às oportunidades de multidisciplinaridade e divulgação científica

16:55 - 17:45 Coffee Break and Poster Session 1

Auditório Ferreira da Silva | Chair: Adelino Galvão (IST, PT)

17:45 PL2 | Zita Martins (IST - UL, PT)

The origin and evolution of organic matter in the solar system - interstellar ices, comets and primitive carbonaceous meteorites

18:30 - 19:30 PORTO de Honra

Thursday, July 25th, 2019

Auditório Ferreira da Silva | Chair: Augusto Tomé (UA)

09:00 **PL3 | Nuno Maulide (Vienna University, AT)**  
The beautiful simplicity of rearrangements: methodology and total synthesis

09:45 - 10:40 **Vicente de Seabra 2018 Medal**

Auditório Ferreira da Silva | Chairs: Joaquim Faria (Vice-Presidente da SPQ, FEUP) / João Rocha (CICECO, UA)

**Mara G Freire (FA)**  
Water, Ionic Liquids and Salts: From the salting-out phenomenon to the formation of aqueous two-phase systems

10:40 - 11:45 **Coffee Break and Poster Session 2**

**AFS | Chair: Fernanda Proença (UMinho, PT)**

11:45 **KN4 | Vânia André (IST, PT)**  
Antibiotics' coordination frameworks: a new perspective towards improved properties and activity

12:05

12:15 **IOC4 | Paula Gomes (FCUP, PT)**  
AN ODE TO NITROGEN: nitrogen-based functional groups in the core of new approaches to fight infectious diseases

**A1 | Chairs: Nuno Maulide/Nuno Candeias/Muna Sidarius**

**Group of Expatriate Chemists (GEC/GQE)**

**IOC5 | Ricardo Mata (U. Gottingen, DE)**  
Structured proton wires – a design principle for biochemical regulation

**IOC6 | Margarida Gomes (U.Lyon, FR)**  
Chemistry or free volume? Porous liquids for gas absorption

**IOC7 | Pedro Costa (KAUST, SA)**  
Alkaline Oxidation of Carbon Materials for Elemental Analysis

**S1 | Chair: José Câmara (UMad, PT)**

**KN5 | Armando Silvestre (UA, PT)**  
Nanocellulose fibers: biobased masterpieces for the development of sustainable functional materials

**IOC21 | Fernando Nunes (UTAD, PT)**  
As melanoidinas. O que são, como se formam e para que servem?

12:45 - 14:00 **Lunch**

Auditório Ferreira da Silva | Chair: Matilde Marques (IST, PT)

14:00 **PL4 | Eduardo Fernandes-Megia (U. Santiago de Compostela, ES)**  
Dendritic Nanostructures for Biomedical Applications

**AFS | Chair: Teresa Pinho e Melo (UC, PT)**

14:45 **KN6 | Luísa Martins (IST-UL, PT)**  
Alkanes or CO<sub>2</sub> to added value commodities - the role of C-scorpionate catalysts

15:15 **IOC9 | Nuno Moura (UA, PT)**  
Synthesis and emerging applications of  $\beta$ -functionalized porphyrin derivatives bearing N-heterocycles

15:35 **IOC10 | Pedro Paulo (IST-UL, PT)**  
Single-Molecule Fluorescence from Porphyrins Enabled by Gold Nanodimer Antennas

15:55 **OC13 | João Rodrigues (UA, PT)**  
Bioactive chitosan-on-chitosan multilayered assemblies for biomedicine

16:10 **OC14 | Diana Resende (FFUP, PT)**  
Synthesis and Biological Evaluation of Nature-Inspired Indole-Containing Alkaloids

16:25 **OC15 | Ana Fernandes (FEUP, PT)**  
Morphological Modifications on Carbon Nitride for Enhanced Selectivity Towards the Synthesis of p-Anisaldehyde

**A1 | Chair: Eduardo Marques (FCUP, PT)**

**KN7 | Luís Mafra (UA, PT)**  
Understanding the mechanism of CO<sub>2</sub> chemisorption on amine-modified porous adsorbent solid surfaces for gas capture applications

**IOC11 | Andreia Valente (FCUL, PT)**  
Fighting metastatic cancers with ruthenium cyclopentadienyl compounds

**OC17 | Beatriz Gomes (FFUL, PT)**  
H<sub>2</sub>S-diclofenac vs. diclofenac: effects on membrane lipids

**OC18 | Roberto Russo (FFUL, PT)**  
3HCs as Boronic Acid Hotspots for site-selective formation of iminoboronates

**OC19 | Cláudia Braga (FFUL, PT)**  
Triazene-based prodrugs for selective targeting of hypoxic solid tumors

**S1 | Chair: Jorge Marques (UC, PT)**

**KN8 | Cláudia Silva (FEUP, PT)**  
Metal-free photocatalysis: a great step toward sustainability

**IOC12 | Vânia Calisto (UA, PT)**  
Development and application of waste-derived carbon materials for improving wastewater treatments

**OC20 | Carlos Baleizão (FCUL, PT)**  
Chasing Boron: Optical Detection and Scavenging Materials for Wastewater Remediation

**OC21 | Eliana da Silva (FEUP, PT)**  
Remarkable Solar-Driven H<sub>2</sub> Production from Polymeric Carbon Nitride Doped with Carbon and with Distorted Structure

**OC22 | J. Richard Gomes (UA, PT)**  
A computational study on the water splitting reaction by Mxenes

**OC23 | Ricardo Sendão (FCUP, PT)**  
Insight into the Interaction between Fluorescent Carbon Dots and Molecular By-Products of their Synthesis

16:40 - 17:15 **Coffee Break and Poster Session 3**

Auditório Ferreira da Silva | Chair: Sérgio Seixas de Melo (UC, PT)

17:15 **PL5 | João Carlos Lima (FCTUNL – U. Lisbon, PT)**  
Aurophilic Luminescent Hydrogels

18:00 - 19:00 **SPQ - Meeting**

20:00 **Meeting Dinner ("Casa da Musica" Restaurant. Dinner includes a special performance: "When science becomes an art")**

Friday, July 26th, 2019

Auditório Ferreira da Silva | Chair: **Maria José Calhorda (FCUL, PT)**

09:00 **PL6 | Henry Schaefer (U. California at Berkeley - USA)**  
A Brief History of Quantum Chemistry and Computers

**AFS | Chair: Cristina Matos (ISEP, PT)**

**A1 | Chair: Celso Reis (I3S, PT)**

**S1 | Chair: Armando Silvestre (UA, PT)**

09:45 **KN9 | Nuno Mateus (FCUP, PT)**  
Exploring the colour and bioactivity of anthocyanin derivatives

**KN10 | Luísa Maia (UNL, PT)**  
Life with Molybdenum

**KN11 | Marcela Segundo (FFUP, PT)**  
Greener analytical methods through miniaturization and automation

10:15 **IOC13 | Lillian Barros (IPB, PT)**  
Recuperação de antocianinas de biorresíduos de Ficus carica L. e Prunus spinosa L.: propriedades corantes e bioativas

**IOC14 | Filipa Marcelo (FCTUNL, PT)**  
Decoding Glycan-Lectin Interactions in Cancer

**IOC15 | Marco da Silva (FCTUNL, PT)**  
Multidimensional GC: Reality, alternative or just a separative extravagancy

10:45 - 11:45 **Coffee Break and Poster Session 4**

**AFS | Chair: Marco Silva (FCTUNL, PT)**

**A1 | Chair: Clara Magalhães (UA, PT)**

**S1 | Chair: Marcela Segundo (FFUP, PT)**

11:45 **KN12 | Lisete Silva (IC, UK)**  
The biochemical principles and applications of carbohydrate microarrays

**KN13 | Beatriz Royo (ITQB UNL, PT)**  
Manganese: The Black Swan

**KN14 | Verónica Bermudez (UTAD, PT)**  
Solutions for improving energy efficiency in buildings

12:15 **IOC16 | José Câmara (U. Minho, PT)**  
Foodomics platforms - new avenues to investigate food quality, traceability and bioactivity

**IOC17 | Nuno Xavier (FCUL, PT)**  
Dodecyl-containing Azide and Glucuronamide-based Nucleosides as Promising Anticancer Lead Molecules for Circumventing Chemotherapy Resistance

**IOC18 | Eduardo Marques (FCUP, PT)**  
Versatile biocompatible vesicles based on cationic/anionic surfactants: from rational design to biomolecular delivery

12:40 - 14:00 **Lunch**

Auditório Ferreira da Silva | Chair: **Mário Simões (UA, PT)**

14:00 **PL7 | Cristina Freire (FCUP, PT)**  
Catalysis: the successful marriage between Carbon and other Elements in the Periodic Table

**AFS | Chair: Paula Gomes (FCUP, PT)**

**A1 | Chair: Verónica Bermudez (UTAD, PT)**

**A2 | Chair: Lillian Barros (IPB, PT)**  
Young Chemists Group (YCG/GJQ)

14:45 **KN15 | Alberto Canelas Pais (FCTUC, PT)**  
Polyelectrolyte interaction, confinement and adsorption

**KN16 | Marta Piñero (FCTUC, PT)**  
Sustainable Synthesis of Tetrapyrrolic Macrocycles

**IOC22 | João Borges (UA, PT)**  
Supramolecular engineering of modular ECM-like functional nanobiomaterials to instruct cell behavior

15:20 **IOC8 | António Parola (FCTUNL, PT)**  
Photoswitching Supramolecular Host-Guest Systems

**IOC20 | Luísa Ferreira (FCTUNL, PT)**  
Design, production and evaluation of a task specific cellulose-based polymer for wine stabilization

**IOC23 | Filipe Reis (IPB, PT)**  
Desenvolvimento de formulações cosmecêuticas a partir de extratos obtidos de cogumelos

15:40 **OC24 | Filipe Santos (UTAD, PT)**  
On Chondroitin Sulfate/ Citric Acid Electrolytes as a New Electrolyte Material

**OC16 | Adrià Gil-Mestres (FCUL, PT)**  
Use of Phenanthroline Derivatives in Chemotherapy Treatments for Cancer and as Alternative Therapeutics in the Era of Antibiotic Resistance: Interaction with DNA and Modulation of the Efficiency

**IOC24 | Mónica Santos (FEUP, PT)**  
Anticancer Drugs: a Growing Environmental Threat

Auditório Ferreira da Silva | Chair: **Victor Freitas (FCUP, PT)**

15:55 **PL8 | Nicola Armaroli (CNR – Bologna, IT)**  
Photoactive systems for solar energy conversion, luminescence and catalysis

16:40 - 17:30 **Awards & Closing Ceremony**

**Prof. Joaquim Faria, Vice-Presidente da SPQ**

**Prof. José Ferreira Gomes, Comissário Nacional para o AITP**

**Prof. Vitor Freitas, Organizador do XXVI EN SPQ**

17:30 - 17:50 **Prof. João Monte: Leitura encenada de alguns excertos do Livro "O Bairro da Tabela Periódica"**

17:50 **Farewell Party**