

CONFERENCE PROGRAM

MONDAY, 21 SEPTEMBER

08:45-09:00 **Opening Ceremony**

Chairman: Prof. Pedro J. Campos

09:00-10:00 **Plenary Lecture: Prof. Johan Hofkens**

Probing dynamics of (bio)molecules with single molecule spectroscopy

10:00-10:40 **Invited Speaker: Dr. Luis Serrano-Andrés**

Photochemistry and Quantum Chemistry: The New Frontiers

10:40-10:45 Announcements

10:45-11:15 COFFEE

Chairman: Prof. Guillermo Orellana

11:15-12:35 **Oral Presentations**

11:15-11:35 Molecular injection of fluorescent drugs in *Leishmania* parasites

V. Hornillos, J.R. Luque, B. García de la Torre, D. Andreu, L. Rivas, F. Amat, A.U. Acuña

11:35-11:55 A possible mechanism for photostability in polyglycine: description of photoinduced proton transfer reaction paths at the CASSCF//CASPT2 level of theory

M. Marazzi, U. Sancho, O. Castaño, W. Domcke, L.M. Frutos

11:55-12:15 Excited state dynamics in aromatic molecules and clusters

A. Longarte, R. Montero, A. Peralta, F. Castaño

12:15-12:35 Second and third harmonic generation from powder quinoxalinoporphyrine derivatives

J.L. Bourdelande, J. Hernando, T. Houry, R.G. Clady, T. Schmidt, M.J. Crossley

12:45-14:00 LUNCH

14:00-15:30 **POSTER SESSION + COFFEE**

Chairman: Prof. Silvia E. Braslavsky

15:30-16:10 **Invited Speaker: Prof. Hermenegildo García**

Fotoquímica en espacios confinados. Desde estudios básicos hacia las aplicaciones

16:10-18:30 **Oral Presentations**

16:10-16:30 Fluorescence correlation spectroscopy as a tool to study the interaction dye-surfactant during the micellization process

J. Bordello, D. Granadero, M. Novo, W. Al-Soufi

16:30-16:50 Fotoquímica de agregados de plata en cucurbit[n]uriles

M. De Miguel, M. Álvaro, H. García

16:50-17:10 Layered double hydroxides as photocatalysts for visible light oxygen generation from water

C. Gomes Silva, Y. Bouizi, V. Fornés, H. García

17:10-17:30 COFFEE

Chairman: Prof. Santi Nonell

- 17:30-17:50 Estudio fluorescente de la complejación del dapoxyl por ciclodextrinas: efecto del tamaño de la cavidad en el tipo y fortaleza de los complejos
D. Granadero, J. Bordello, M. Novo, W. Al-Soufi
- 17:50-18:10 Transient absorption spectroscopy of drugs derivatives within protein microenvironment
M. C. Jiménez, C. J. Bueno, I. Vayá, M. A. Miranda
- 18:10-18:30 Femtosecond Studies of a Confined Porphyrin Derivative by Human Serum Albumin Protein
A.Synak, M.Gil, J.A. Organero and A. Douhal

TUESDAY, 22 SEPTEMBER

Chairman: Prof. Miguel Angel Miranda

- 09:00-10:00 **Plenary Lecture: Prof. Norman A. García**
Photodegradation of phenolic water-contaminants under environmental conditions
- 10:00-10:40 **Invited Speaker: Prof. Guillermo Orellana**
Polímeros de impronta molecular y fluorescencia para el control de calidad del agua y de los alimentos mediante reconocimiento molecular
- 10:40-10:45 Announcements
- 10:45-11:15 COFFEE

Chairman: Dr. Inmaculada García-Moreno

- 11:15-12:35 **Oral Presentations**
- 11:15-11:35 Aplicaciones derivadas de la fotoquímica de *O*-aciloximas
A. Caballero, R. Alonso, M. A. Rodríguez, P. J. Campos.
- 11:35-11:55 mPTA-based photoactive ruthenium derivatives
(mPTA = N-methyl-1,3,5-triaza-7-phosphaadamantane)
M. Chaara, R. Girotti, S. Mañas, V. Passarelli, R. Perutz, A. Romerosa, M. Serrano
- 11:55-12:15 Controlling laser emission by size of particles in gain media
V. Martín, R. Sastre, A. Costela, I. García-Moreno
- 12:15-12:35 Síntesis y estudio fotofísico de nuevos cromóforos con estructura de aza-BODIPY para aplicaciones en medios fisiológicos
R. Suau, E. Pérez-Inestrosa, D. Collado
- 12:45-14:00 LUNCH
- 14:00-14:15 COFFEE

Chairman: Dr. Ezequiel Pérez-Inestrosa

- 14:15-14:55 **Invited Speaker: Dr. Diego Sampedro**
Interruptores y motores moleculares biomiméticos
- 14:55-15:55 **Oral Presentations**
- 14:55-15:15 Determinants of singlet oxygen formation and decay in biological systems
S. Nonell, X. Ragàs and M. Agut
- 15:15-15:35 Interactions of a cyanine homodimeric dye with single-stranded and double-stranded DNA
M. J. Ruedas-Rama, A. Orte, J. M. Paredes, L. Crovetto, E. M. Talavera, J. M. Alvarez-Pez
- 15:35-15:55 Energy and Charge Transfer Processes in BDP Dyes to Develop Novel Fluorescence Probes and Sensors
J. Bañuelos, F. López Arbeloa and I. López Arbeloa
- 16:00 EXCURSION + DINNER

WEDNESDAY, 23 SEPTEMBER

Chairman: Prof. José Luis Bourdelande

- 09:00-10:00 **Plenary lecture: Prof. Silvia E. Braslavsky**
Role of carotenoids in photosystem II (PSII) reaction centers
- 10:00-10:40 **Invited Speaker: Prof. José M. Alvarez-Pez**
Buffer-Mediated ground- and excited-state proton exchange reactions at the single molecule and ensemble level (TPSPC)
- 10:40-10:45 Announcements
- 10:45-11:15 COFFEE

Chairman: Dr. A. Ulises Acuña

- 11:15-12:35 **Oral Presentations**
- 11:15-11:35 Una Nueva Generación de Cromóforos Ditópicos VSD (*Voltage-Sensitive Dyes*) para Aplicaciones Biomédicas
J.M. Montenegro, J. Casado, J.T. López Navarrete, R. Suau, E. Pérez-Inestrosa
- 11:35-11:55 New integrated oxygen sensors based on GaN emitters covalently functionalized with luminescent Ru(II) complexes
J. López-Gejo, A. Arranz, C. Palacio, A. Navarro, E. Muñoz, G. Orellana
- 11:55-12:15 New Hybrid Dyes for Biomedical and Photonic Applications
M.E. Pérez-Ojeda, B. Trastoy, J.L. Chiara, R. Sastre
- 12:15-12:35 Excited state double hydrogen-bonding induced by charge transfer in isomeric bifunctional azaaromatic compounds: pyrido-indole and pyrrolo-quinoline derivatives
D. Reyman, C. Díaz-Oliva

12:45-14:00 LUNCH

14:00-15:30 **POSTER SESSION + COFFEE**

Chairman: Prof. Wajih Al-Soufi

- 15:30-16:50 **Oral Presentations**
- 15:30-15:50 Molecular Logic with Photonic Devices – Quo Vadis?
U. Pischel
- 15:50-16:10 On board chemical monitoring of the aircraft hydraulic fluid using Ru(II) luminescent complexes and frequency-domain lifetime measurements
M. Veiga, J. L. Urraca, C. Cano, M. C. Moreno-Bondi, G. Orellana
- 16:10-16:30 New Bodipy Dyes with Wavelength-Finely Tunable Laser Action in the Red-Near Infrared Spectral Region
A.R. Agarrabeitia, J. Bañuelos, A. Costela, G. Durán-Sampedro, I. García-Moreno, F. López Arbeloa, I. López Arbeloa, M.J. Ortiz
- 16:30-16:50 Matlalina, el fluoróforo del *Lignum nephriticum* de N. Monardes
A.U. Acuña, F. Amat, P. Morcillo, M. Liras, B. Rodríguez
- 16:50-17:00 **End of Conference**
- 17:00 GRUFO BOARD MEETING

LIST OF POSTERS

- P01 Photoinduced oxidation of pyrene on the CdSe quantum dot surface
Jordi Aguilera Sigalat, Raquel E. Galian, Julia Pérez Prieto
- P02 Efficient and stable amplified spontaneous emission (ASE) from dye-doped polymeric planar waveguides
L. Cerdán, A. Costela, I. García-Moreno, O. García, R. Sastre, M. Calle, D. Muñoz, and J. de Abajo
- P03 New Laser Dyes Based on Boron Complexes with Tunable Emission on the Whole Visible Region: A Theoretical Approach
J. Bañuelos Prieto, F. López Arbeloa, M. Liras and I. López Arbeloa
- P04 Single Molecule Studies of Catalytic Reactions of Haloperoxidase Enzymes by Confocal Fluorescence Microscopy
V. Martínez Martínez, G. De Cremer, Maarten, B.J. Roeffaers, Johan Hofkens and F. López Arbeloa
- P05 Use of Polarized Spectroscopy to Prove the Presence of Rhodamine Aggregates Formed in Surfactant/Clay Hosts
S. Salleres, T. Arbeloa, C. Corcostegui, I. López Arbeloa and F. López Arbeloa
- P06 Synthesis and photophysical properties of asymmetric BODIPYs dyes PM567 analogues
A.R. Agarrabeitia, J. Bañuelos, F. López Arbeloa, I. López Arbeloa, M. Martínez-Ripoll, M.J. Ortiz, M. Palacios, M.E. Pérez-Ojeda
- P07 Organized media effect on the photochemical deoxygenation of rezorufin in the presence of amines
G.V. Porcal, M.S. Altamirano, C.M. Previtali, S.G. Bertolotti
- P08 Excited state interactions in biphenyl-tryptophan dyads
Paula Bonancía, Ignacio Vayá, M. Consuelo Jiménez, Miguel A. Miranda
- P09 Specific and selective generation of guanine neutral radical from photolabile nucleoside derivatives.
S. Encinas, C. Paris, M. A. Miranda, P. Kaloudis, D. Vrantza, R. Pérez-Ruiz, T. Gimisis
- P10 Compuestos pseudopeptídicos sintéticos como modelos supramoleculares para el estudio de fármacos fotoactivos
Francisco Galindo, M. Angeles Izquierdo, M. Isabel Burguete, Santiago V. Luis, Xavier J. Salom-Roig, Jean Martínez, María C. Morant-Miñana, Miguel A. Miranda, Julia Pérez -Prieto
- P11 Photophysical study of a rosuvastatin photoproduct
Giacomo Nardi, Sara Montanaro, Virginie Lhiaubet-Vallet, Miguel Angel Miranda
- P12 Photophysical and Photochemical study of Cinacalcet
E. Nuín, M. C. Jiménez, I. Andreu, M. A. Miranda
- P13 Laser Flash Photolysis Studies of Ketoprofen Conjugates of α -Amino-Cholesterol
F. Palumbo, I. Andreu, M.S. Sinicropi, M. A. Miranda
- P14 Fluorescent Cholic Acid derivatives as probes for the photophysical characterization of bile acid aggregates
Miguel Gómez, M. Luisa Marin, Miguel A. Miranda
- P15 Síntesis y caracterización fotofísica de porfíricos con diferentes sustituyentes arilo
M. Camarasa, I. Burgués, D. Sánchez-García, S. Nonell
- P16 Solvent effects on the photophysics of Naphthoxazole derivatives
Antonio L. Zanooco, Manuel Curitol, Xavier Ragàs, Santi Nonell
- P17 Síntesis y caracterización fotofísica de porfíricos catiónicos
R. Ruiz, D. Sánchez-García, S. Nonell
- P18 Liposomas marcados con folato como sistemas de vehiculización para terapia fotodinámica dirigida
M. García-Díaz, S. Nonell, A. Casadó, M. Mora, M. L. Sagristá

- P19 Excimeros y transferencia de energía intramolecular en disoluciones de copolímeros de N-vinil carbazole/vinil tert-butil benzoato de distinta composición molar
Thais Carmona, Natali Fernández-Peña, M. Pilar Tarazona, Enrique Saiz and Francisco Mendicuti
- P20 Ground and excited state properties of levosimendan in solution and in chemical and biological nanocavities
Boiko Cohen, Juan Angel Organero, Luis Rodrigues Padial, Lucía Santos Peinado, Ruxandra Gref, Abderrazzak Douhal
- P21 Photodynamics of 4'-dimethylaminoflavonol interacting with Nax zeolites, MCM-41 mesoporous material and Silica nanoparticles.
C. Martín, J.A. Organero, A. Roshal and A. Douhal
- P22 Photophysical study of a xanthene derivate in a medium mimicking celular environment
L. Crovetto, J.M. Paredes, A. Orte, M.J. Ruedas-Rama, R. Rios, J.M. Alvarez-Pez, E.M. Talavera
- P23 Femtosecond pulsed laser deposition of CdS nanostructures
M. Sanz, J. G. Izquierdo, L. Bañares, M. Castillejo
- P24 Characterization of holographic gratings implemented in a photopolymerizable glass with femtosecond laser pulses
J. G. Izquierdo, M. P. Hernández-Garay, O. Martínez-Matos, J.A. Rodrigo, R. Weigand, M.L. Calvo, L. Bañares and P. Cheben
- P25 Polymeric matrices containing self-assembled fibrillar networks and quantum dots
M. A. Izquierdo, F. Galindo, P. Wadhavane, M. I. Burguete, S. V. Luis
- P26 Reactividad del Oxígeno molecular singulete $O_2^1\Delta_g$, frente a flavonoides en vesículas de dipalmitoilfosfatidilcolina
Else Lemp M., Antonio L. Zanocco, Javier Morales-Valenzuela
- P27 Time-resolved optical emission spectroscopic studies of ambient air induced by a high-power TEA-CO₂ pulsed laser
J.J. Camacho, L. Díaz, M. Santos, L. Juan, E. Martín, J.M.L. Poyato
- P28 Photophysic Properties of 3- and 4-amine 1,8-Naphthalimide N-substituted
E. Martín, J.L. Gu. Coronado, J. J. Camacho and J. M. L. Poyato
- P29 Papel de las fuerzas electrostáticas e hidrofóbicas en las interacciones entre Rodamina 123 y diferentes tipos de tensoactivos.
M. Novo, S. Freire, D. Granadero, J. Bordello, W. Al-Soufi
- P30 Photosensitized materials doped with LDS 698: photophysical and lasing properties
M. Pintado-Sierra, V. Martín, R. Sastre, A. Costela, I. García-Moreno
- P31 Studies of chiral recognition in the encapsulation of naproxen into a hyperbranched macromolecules with a photoactive core
Salvador Pocoví-Martínez, Lourdes Pastor-Pérez, M.C. Cuquerella, Salah-Eddine Stiriba, Julia Pérez-Prieto
- P32 Estudio fotoquímico de interruptores moleculares biomiméticos.
Pedro J. Campos, Diego Sampedro, Laura Rivado-Casas
- P33 Luminescent indicator dyes for heavy metals determination
André Santos, Kássio M.G. Lima, Guillermo Orellana
- P34 A combined spectroscopic and theoretical study of propofol and its hydrated clusters.
Iker León, Emilio Cocinero, Judith Millán, Alberto Lesarri, Fernando Castaño, José Andrés Fernández
- P35 Laser ablation of metallic targets
J.I. Apiñaniz, R. Martinez, F. Castaño

- P36 Study of the interaction of high intensity laser radiation with metals
P. Ecija, R. Martínez, F.J. Basterretxea, M.N. Sánchez Rayo, F. Castaño
- P37 Excited and superexcited state dynamics in aromatic molecules
R. Montero, F. Castaño, A. Longarte
- P38 Laser Interference Lithography for the creation of regular nanoarrays and structures
C. Redondo, B. Sierra, F. Castaño
- P39 Structures of Tropinone in Gas Phase
Emilio J. Cocinero, Patricia Ecija, José A. Fernández, Jens-Uwe Grabow, Fernando Castaño, Alberto Lesarri
- P40 New Organic-Inorganic Host for the Sensitized Luminescence of Lanthanides and Layered γ -Zirconium Phosphate
E. Brunet, O. Juanes, L. Jiménez, J.C. Rodríguez-Ubis