

## 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  $\alpha$ -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. Zanocco, 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 Rodriguez 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-CO<sub>2</sub> 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  $\gamma$ -Zirconium Phosphate  
*E. Brunet, O. Juanes, L. Jiménez, J.C. Rodríguez-Ubis*