

CONFERENCE'S PROGRAM:

All scientific activities will take place at **Salón de Grados A** of the School of Industrial Engineering (EII) in the Campus of Teatinos of the University of Málaga

TUESDAY JULY 5, 2022

Workshop: Remote and in-situ sampling with the Virsa Raman Analyser, a valuable tool in the science of Cultural Heritage.

18:30 – 19:30 **Riccardo Tagliapietra, Sebastien Maussang** (RENISHAW)

Free registration. Send mail to:
mmontejo@ujaen.es

Welcome reception / Registration

20:30 **Meeting point:** Casa Hermandad "Sepulcro",
C/ Alcazabilla 5, 29015 Málaga

WEDNESDAY JULY 6, 2022

8:00 – 9:00 **Registration**

9:00 – 9:30 **Opening Ceremony**

CHAIR: M^a ROSA LÓPEZ RAMÍREZ

9:30 – 10:30 **PL1:** *Applied spectroscopy: Impact of organics in the chemistry of the Earth's atmosphere and the interstellar medium.*

Elena Jiménez Martínez (University of Castilla-La Mancha)

OC1: Detection of biomarkers on lichens after Space and Mars like conditions with Raman

10:30 – 11:15 **Rosa de la Torre Noetzel** (CSIC-INTA)

OC2: XPS study of chemical evolution of glycine on pyrite (100) surface

Santos Gálvez Martínez (CSIC-INTA)

OC3: Subfemtogram detection power for single-trapped nanoparticles in laser-induced plasmas

Francisco Javier Fortes (UMALASERLAB)

11:15 – 11:45 **Coffee Break (Hall in ground floor)**

CHAIR: FRANCISCO ÁVILA FERRER

11:45 – 12:15 **IL1:** *A bright future for upconversion nanoparticles*

Marco Lurenti (UCM – CSIC-ICMM)

OC4: Polymeric (nano)composite papers as analytical platforms coupled to spectroscopic techniques

Ángela Inmaculada López Lorente (U. Córdoba)

OC5: Hyperspectral characterization of head and neck cancer in mice

Alba Martín de la Torre (U. Cantabria)

OC6: Electrospraying as Method for the Synthesis of Biocompatible PLGA@Ag₂S and PLGA@Ag₂S@SPION Nanocarriers with Drug Release Capability

Rafael Contreras Cáceres (UCM)

OC7: Molecular super-gluing: a straightforward tool for antibody labelling and its application to mycotoxin biosensing

Fernando Pradanas González (UCM)

OC8: Multiparametric Microanalyzer as a Warning System for Heavy Metals Monitoring in Water using Carbon Dots as Luminescent Reagent

Alex Pascual-Esco (UAB)

13:30 – 15:00 **Lunch (EII Cafeteria)**

CHAIR: JOSÉ MIGUEL VADILLO

15:00 – 16:00 **PL2:** *Mid-Infrared Photonics: From Emerging Technology to Enabling Tool*

Boris Mizaikoff (University of Ulm)

OC9: FTIR and VCD assisted study of the speciation in solution of racemic and enantiopure NSAIDs: ketoprofen, naproxen and ibuprofen.

16:00 – 16:30

Magdalena Sánchez Valera (UJA)

OC10: Carbonaceous dust specific surface area determination using grazing-angle reflection-absorption IR spectroscopy

Belén Maté (CSIC-IEM)

16:30 – 16:55

Coffee Break (Hall in ground floor)

CHAIR: M^a VEGA CAÑAMARES ARRIBAS

OC11: Study of the aggregation behaviour and environmental stability of Platinum nanoparticles in water systems.

Armando Sánchez Cachero (UCLM)

17:00 – 17:30

OC12: Vibrational Spectroscopy Complemented with Chemometrics as a Tool for Auxiliary Diagnosis of Psychiatric Disorders

Gülce Ogruc Ildiz (Istanbul Kultur University)

17:30 – 18:30

Posters' Session (Hall in ground floor)

Conference's Social Program Activities:

"Excursion, sunset and astronomical

observation in "Torcal de Antequera"

BUS DEPARTURE in Meeting point: EII -

CONFERENCE VENUE

19:30

THURSDAY JULY 7, 2022

CHAIR: BELÉN MATÉ NAYA

9:30 – 10:30 **PL3:** *IR-Induced and Tunneling-Driven Reactions in Cryogenic Matrices "Plastic Molecular Cryosurgery"*

Rui Fausto (University of Coimbra)

10:30 – 11:15 **OC13:** Mid-infrared spectroscopy of aliphatic molecular ices exposed to UV radiation in dense molecular cloud

Guillermo Tajuelo Castilla (CSIC-ICMM)

OC14: Solution-Cathode Glow Discharge Optical Emission Spectrometry for Elemental Analysis: Novel Insights and Instrumental Approaches.

Jaime Orejas (UNIOVI)

OC15: Computation of Molecular Aggregates Vibronic Spectra with a Mixed Quantum/Classical Approach

Daniel Aranda Ruiz (ICMol- UV)

11:15 – 11:45 Coffee Break (Hall in ground floor)

CHAIR: MANUEL MONTEJO GÁMEZ

11:45 – 12:15 **IL2:** *Microenvironment sensing by multiparametric microscopy and nanoscopy*

Ángel Orte (University of Granada)

OC16: Chirality from twisting

Francisco Javier Ramírez (UMA)

OC17: Comparative study of γ and δ alumina by vibrational spectroscopies

Íñigo González de Arrieta (CNRS - Orléans)

12:15 – 13:15 **OC18:** Mapping minerals in a Dhofar meteorite by Raman imaging

Ana Isabel Casado Gómez (UCM)

OC19: A detailed IR, Raman spectroscopic and DFT theoretical analysis of commercial additives monosodium glutamate and xylitol.

Vicente Timón (CSIC-IEM)

13:15 – 13:45 Posters' Session (Hall in ground floor)

13:45 – 15:00 Lunch (EII Cafeteria)

CHAIR: SANTIAGO SÁNCHEZ CORTÉS

15:00 – 15:30 **IL3:** *Innovation in Analytical Spectrometry driven by Nanotechnology*

Carlos Bendicho (University of Vigo)

OC20: Analysis of two blue triarylmethane dyes by UV-Vis, FT-Raman and SERS spectroscopies.

15:30 – 16:15 **Michela Rampa** (CSIC-IEM)

OC21: Spectroscopic analysis and identification of Islamic and Christian materials and pigments

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in the church of Santa Catalina-convent of Santo Domingo (Jaén)

Alberto Sánchez (UJA-IUIAI)

OC22: Raman spectroscopy and SERS methodology for the analysis of a melamine admixture superplasticizer for concrete.

Ana Crespo (CSIC-IEM)

16:15 – 17:00 Coffee Break (Hall in ground floor)

CHAIR: ROSA DEL CARMEN RODRÍGUEZ MARTÍN-DOIMEADIOS

OC23: Hyperspectral infrared imaging of dystrophic mice muscles.

Verónica Mieites Alonso (IDIVAL-UC)

OC24: Spectroscopic monitoring of the stability of Phycoerythrin dye extract: influence of temperature, pH, light exposure and preservatives.

Ruperto Bermejo Román (UJA)

OC25: Electric field and charged cluster dual model for Potential Dependent Surface-Enhanced Raman Spectroscopy.

Francisco García González (UMA)

17:00 – 17:45

17:45 – 18:30 Societies' Assemblies

Conference's Dinner

21:00 Meeting point: Restaurante "El Balneario – Baños del Carmen" C/ Bolivia 26, 29018 Málaga

FRIDAY **JULY 8, 2022**

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9:30 – 10:30

CHAIR: VALENTIN GUADAÑO

PL4: *LIBS and acoustic measurements of rocks and regolith and the exploration of Mars*
Javier Laserna (UMALASERLAB)

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OC26: The crucial role of molecular emissions on detectability of organic biosignatures under Mars atmosphere conditions by LIBS

Tomás Delgado Pérez (UMALASERLAB)

OC27: Detection of *A. platensis* cyanobacteria in different inorganic matrices by LIBS under a simulated Martian atmosphere

Laura García Gómez (UMALASERLAB)

10:30 – 11:00

11:00 – 11:25 Coffee Break (Hall in ground floor)

CHAIR: M^a ROSA LÓPEZ RAMÍREZ

11:30 – 12:00 **IL4:** *Studying Protein Stability in Ionic Liquids: Insights from NMR*

Eurico J. Cabrita (UCIBIO-NOVA)

OC28: Through the NMR looking glass: Unravelling role of water in DESs nanostructure

Ana Sofia Diogo Ferreira (UCIBIO-NOVA)

OC29: CPL and ROA: a rare couple together

Luis Palomo (UMA)

12:00 – 13:00

OC30: Concomitant Ion Impact on the Performance of A SCGD-OES Elemental Analysis Approach

Yinchenxi Zhang (UNIOVI)

OC31: Detection of the glyphosate pesticide by SERS: development of a new highly selective and sensitive detection method

Francisca Belén Fuenzalida Sandoval (UPJS)

13:00

Closing Ceremony

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