

Table of contents

Plenaries		10
PL1.	<i>Predicting reaction selectivity</i>	11
	Per-Ola Norrby – AstraZeneca, Suècia	
PL2.	<i>Metallacrown complexes: Host-guest interaction paving the way for molecular magnets</i>	12
	Eva Rentschler – Johannes Gutenberg University Mainz, Alemanya	
PL3.	<i>An organometallic perspective to first-row transition metal catalysis</i>	13
	Alicia Casitas – Philipps-Universität Marburg, Alemanya	
PL4.	<i>Transition metal chalcogenides 2D materials: A playground for chemistry</i>	14
	Alicia Forment – Universitat de València, Espanya	
PL5.	<i>The power of organometallics: From catalysts to self-assembled monolayers to atomically precise nanoclusters</i>	15
	Cathleen Cradden – Queen's University, Canadà	
Oral Communications		16
OC1.	<i>In depth study of the polyoxometalate catalyzed water oxidation: electrochemical, chemical and statistical approaches</i>	17
	Maria Besora – Universitat Rovira i Virgili, Espanya	
OC2.	<i>Computational insights into photocatalytic CO₂ reduction by polyoxometalate-based complexes and materials</i>	18
	Albert Solé-Daura – Institut Català d'Investigació Química, Espanya	
OC3.	<i>Highly selective C(sp³)-H bond oxygenation at remote methylenic sites enabled by polarity enhancement</i>	19
	Filippo Scarchilli – Universitat de Girona, Espanya	
OC4.	<i>From reactants to products: the role of NMR in reaction progress analysis</i>	20
	Carla Alamillo Ferrer – Institut Català d'Investigació Química, Espanya	
OC5.	<i>Late-stage functionalization of pharmaceuticals by C-C cross-coupling enabled by wingtip flexible N-heterocyclic carbenes</i>	21
	Albert Poater – Universitat de Girona, Espanya	
OC6.	<i>Sustainable photoredox catalysis with metallabis(dicarbollides): From small alkenes to unsaturated fatty acids</i>	22
	Isabel Guerrero – Institut de Ciència de Materials de Barcelona, Espanya	
OC7.	<i>Polyoxometalate-layered double hydroxide nanocomposites as water oxidation electrocatalysts</i>	23
	Joaquín Soriano-López – Universitat de València, Espanya	
OC8.	<i>Synergistic composite materials for electrochemical CO₂ reduction and hydrogen generation</i>	24
	Bahareh Khezri – Universitat Rovira i Virgili, Espanya	
OC9.	<i>In situ NMR search for switchable magnetic compounds</i>	25
	Yulia Nelyubina – A. N. Nesmeyanov Institute of Organoelement Compounds, Rússia	

OC10.	<i>Square-lattice to square-complex: Radical-pyrazine architectures</i>	26
	Rosa Diego – Université de Bordeaux, França	
OC11.	<i>The encapsulation of ferrocenium in an organic hosts enhances spin relaxation</i>	27
	Silvia Gómez-Coca – Universitat de Barcelona, Espanya	
OC12.	<i>Revolutionizing nanomedicine: how tiny amphiphilic molecules are transforming drug delivery and therapy</i>	28
	Clara Viñas – Institut de Ciència de Materials de Barcelona, Espanya	
OC13.	<i>Exploring the intramolecular chemistry of iron(V)-oxo-carboxylato species</i>	29
	Andrea Álvarez-Núñez – Universitat de Girona, Espanya	
OC14.	<i>Exploring anion-dependent photophysical properties of Ag(I) and Au(I) pillarplexes</i>	30
	Araceli de Aquino – Universitat de Barcelona, Espanya	
OC15.	<i>Curminoid-based active surfaces towards the preparation of sensors</i>	31
	Arántzazu González-Campo – Institut de Ciència de Materials de Barcelona, Espanya	
OC16.	<i>Light-driven molecular motors within confined spaces</i>	32
	Carles Fuertes-Espinosa – Universitat de Girona, Espanya	
OC17.	<i>Cyclometallated iridium catalysts for the asymmetric hydrogenation of imines</i>	33
	Yisong Wen – Institut de Recerca Biomèdica de Barcelona, Espanya	
OC18.	<i>Cyclometallated pyrenylphosphanes half-sandwich complexes: A promising new motif in antitumoral drug design</i>	34
	Arnald Grabulosa – Universitat de Barcelona, Espanya	
OC19.	<i>Stereoselective control on Cu activation of 6,6-diboryl acrylates for allylic coupling protocols with concomitant lactonization reactions</i>	35
	Mireia Pujol – Universitat Rovira i Virgili, Espanya	
OC20.	<i>Ligand-controlled chemoselectivity between dimerization and (2+2+1) cyclotrimerization of alkynes catalyzed by Rh-NHC-BHetA architectures</i>	36
	Ricardo Castarlenas – Universidad de Zaragoza, Espanya	
OC21.	<i>Biocompatible boron cluster-based photoluminescent dyes as effective antimicrobial photosensitizers</i>	37
	Javier Ordóñez-Hernández – Institut de Ciència de Materials de Barcelona, Espanya	
OC22.	<i>Catalysis with metal-organic frameworks: Opportunities in commodity chemicals</i>	38
	Mircea Dincă – Massachusetts Institute of Technology, United States	
OC23.	<i>Effect of the acid and metallic properties of Ni/H-zeolite catalysts on the obtention of biofuels from 5-hydroxymethylfurfural</i>	39
	Leví Arrieche-Hernández – Universitat Rovira i Virgili, Espanya	
OC24.	<i>Clip-off chemistry as a novel approach to obtain metal-organic nanosheets</i>	40
	Pilar Fernández-Seriñán – Universitat Autònoma de Barcelona, Espanya	
OC25.	<i>Make the design molecular again: metal cage complexes for spintronic devices</i>	41
	Valentin Novikov – Universitat de Barcelona, Espanya	
OC26.	<i>Interplay of curcuminoid design and deposition methods for their electronic applications</i>	42
	Núria Aliaga-Alcalde – Institut de Ciència de Materials de Barcelona, Espanya	

OC27.	<i>Unveiling the chemical reactivity of Ge-based 2D materials with thiolated molecules: Functionalization, passivation and (bio)applications</i>	43
	Jose Muñoz – Universitat Autònoma de Barcelona, Espanya	
OC28.	<i>Redox-active and -inactive molecules inside expanded halide perovskite analogs can behave as charge reservoirs</i>	44
	Roc Matheu – Universitat de Barcelona, Espanya	

Flash Communications 45

FC1.	<i>Schiff bases as platform for synthetising molecular magnets</i>	46
	Ernesto Costa-Villén	
FC2.	<i>Effect of 2,2'-bipyridine ligand on ruthenium nanoparticles for hydrogen evolution catalysis</i>	47
	Álvaro Lozano-Roche	
FC3.	<i>Designing switchable materials: The role of supramolecular interactions in Fe(II) spin-crossover</i>	48
	Raúl Díaz-Torres	
FC4.	<i>Synthesis of metal-organic cages via orthogonal bond cleavage in 3D metal-organic frameworks</i>	49
	Sara Ruiz-Relaño	
FC5.	<i>Supramolecular mask regio-converter: Orthogonal Diels-Alder C₇₀ bis-adducts by mask-mediated regioselective synthesis</i>	50
	Tània Pèlachs i Monell	
FC6.	<i>Estudi computacional del moviment d'un guest planar dins d'un metallorectangle</i>	51
	Mercè Alemany-Chavarria	
FC7.	<i>Un enfocament microcinètic híbrid per connectar teoria i experiments en l'oxidació de l'aigua</i>	52
	Mireia Segado Centellas	
FC8.	<i>Remote 1,4-carbon-to-carbon boryl migration: From a mechanistic challenge to a valuable synthetic application of bicycles</i>	53
	Paula Dominguez-Molano	
FC9.	<i>Ni nanocatalysts in an inorganic matrix for OER at pH 7</i>	54
	Aureliano Macili	
FC10.	<i>Predictió de l'especiació aquosa de heteropolioxometalats: el fosfomolibdat i l'arsenomolibdat</i>	55
	Jordi Buils	
FC11.	<i>Integrating molecular spin qubits in multidimensional systems</i>	56
	Joan Torrent	
FC12.	<i>Ru-based heterogeneous catalytic systems for organic photoactivated oxidations</i>	57
	Rabab Maqsood	
FC13.	<i>Molecular anodes for electrocatalytic water oxidation based on self assembled bilayers driven by electron transfer mediators</i>	58
	Paula Tris-Marzo	
FC14.	<i>Towards efficient asymmetric hydrogenation of tetrasubstituted enones: New catalyst design and mechanistic insights</i>	59
	Jorge Faiges	

FC15.	<i>Cu-catalyzed asymmetric synthesis of γ-amino alcohols featuring tertiary carbon stereocenters</i>	60
	Alejandro Delgado	
FC16.	<i>Asymmetric γ-C-H lactonization as a new approach for the synthesis of quaternary chiral malonates</i>	61
	Nikolaos Siakavaras	
FC17.	<i>Rh-catalyzed single-carbon insertion of 1,3-dienes</i>	62
	Norman Diaz	
FC18.	<i>Cu-catalyzed enantioselective borylative desymmetrization of 1-vinyl cyclobutanols and axial-to-point chirality transfer in a diastereococonvergent/stereoretentive allylation scenery</i>	63
	Nerea Iragorri	
FC19.	<i>Dearomatizative oxidation of arenes</i>	64
	Najoua Choukairi Afailal	
FC20.	<i>Sulfanilic acid-capped Ru-NPs for enhanced HER activity in neutral media</i>	65
	Matilda Kraft	
FC21.	<i>Synthesis and characterization of well-ordered mesoporous carbons from almond shells as the biomass source</i>	66
	Jennifer Lozano Castro	
FC22.	<i>La química supramolecular i l'efecte plantilla com a eines estratègiques per a la construcció d'arquitectures heterolèptiques dinuclears de Ni(II)</i>	67
	Jordi Martínez Morató	
FC23.	<i>A versatile synthesis method of 0D-metal nanoparticle@2D-germanane nanoarchitectonics for energy conversion and biosensor implementations</i>	68
	Yiming Lei	
FC24.	<i>Slow magnetic relaxation in Ag(II) macrocyclic systems</i>	69
	Joan Serra	
FC25.	<i>Computational evaluation of the role of the overcharge protector in electrochemical cross-electrophile coupling</i>	70
	Marina Díaz-Ruiz	
FC26.	<i>Pivotal synthesis of tetrasubstituted epoxides from ketones and α-halo B/Si ylides</i>	71
	Luis Tarifa	
Posters		72
P1.	<i>Advanced metallacarborane photocatalysts for efficient removal of organic compounds in surface and wastewater effluent</i>	73
	Nabila Mimouni	
P2.	<i>Synthesis of new aminophosphine/phosphoramidite-pyridine ligands for Ir-catalyzed asymmetric hydrogenation of olefins</i>	74
	José Antonio García-Alcázar	
P3.	<i>The development of readily accessible phosphinite/phosphite-triazole ligands for Ir-catalyzed asymmetric hydrogenation of alkenes</i>	75
	Zahid Hussain	

P4.	<i>Pd-catalyzed allylic substitution using nucleophilic amines: Access to functionalized mono- and bis-N-allyl synthons</i>	76
	Fengyun Gao	
P5.	<i>Synthesis of 2-oxabicyclic [2.2.1] heptanes using a binary Al(III) complex/halide catalyst</i>	77
	Chenyang Chang	
P6.	<i>Synthesis of luminescent curved nanographene-like compounds via the Scholl reaction</i>	78
	Judith Sala	
P7.	<i>A versatile, readily available and bench stable iron catalyst active in carbene transfer reactions</i>	79
	David Capellán	
P8.	<i>Synthesis and characterization of new Mn complexes and their application in the asymmetric directed oxidation of non-activated C-H bonds</i>	80
	Eric Aparicio	
P9.	<i>Organometallic complexes of Au(I) with azobenzene derivative ligands: Study of the photodynamic process</i>	81
	Ot Raïch Panisello	
P10.	<i>Cu-catalyzed Boron-Wittig reactions of carbonylic compounds</i>	82
	Carmen María Arenas	
P11.	<i>Supramolecularly directed enantioselective γ-lactonization of carboxylic acids using bioinspired manganese catalysts</i>	83
	Christos Christou	
P12.	<i>Towards the quantum properties' manipulation of metallohelicate-based host-guest supramolecular assemblies</i>	84
	Konstantinos Sotirakopoulos	
P13.	<i>Nous complejos polinucleares de lantànids per a aplicacions de computació quàntica i conversió ascendent de fotons</i>	85
	José Serrano-Guarinos	
P14.	<i>Exploring copper β-diketiminate complexes for heterogeneous ammonia oxidation on graphitic surfaces via CH-π and π-π interactions</i>	86
	Josep Antoni Gutiérrez-Orgaz	
P15.	<i>Bimetallic alloy nanoparticles immobilized over TiO₂ nanostructures for enhanced CO₂ photoreduction</i>	87
	Yaroslav Hryhoryev	
P16.	<i>Encapsulation of fullerenes and stabilization of their radicals anions for characterization and functionalization via supramolecular mask strategies</i>	88
	Piyush Piyush	
P17.	<i>Exploring mechanistic insights of Cp*ColI-catalyzed C-H functionalizations with organometallic nucleophiles</i>	89
	Sergio Barranco	
P18.	<i>Computational study of Rh(II)/Pd(0) dual catalysis in the synthesis of 2,2-disubstituted tetrahydroquinolines</i>	90
	Edmond Apaloo-Messan	
P19.	<i>Photoinduced water oxidation using organic photosensitizers and a copper (II) catalyst</i>	91
	Elena Bassan	

P20.	<i>Study of the spin dynamics of a new family of Schiff base heterometallic complexes containing 3d-4f metals</i>	92
	Sergio Caballero	
