



Organic 2D Crystalline Materials: Chemistry, Physics and Devices (O2DMAT)

Madrid, Spain · 15th – 16th September, 2022

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Madrid, Spain, 2022 September 15th - 16th

Conference organizers: Enrique Cánovas, Renhao Dong, Xinliang Feng and Hai Wang

Conference Program

September 15th - Day 1 (Thursday) 1	
08:30 - 09:50	Registration
09:50 - 10:00	nanoGe Introduction and opening
	Session 1A Chair: Eugenio Coronado
10:00 - 10:30 1A-I1	<u>Steven De Feyter</u> (<i>Department of Chemistry, KU Leuven, BE</i>) On-surface synthesis of monolayer metal organic frameworks and covalent organic frameworks, as revealed by in situ scanning tunneling microscopy
10:30 - 11:00 1A-I2	Lukas Grossmann, Benjamin T. King, Jonas Björk, <u>Markus Lackinger</u> (<i>Deutsches Museum, Museumsinsel 1, 80538 München and Physics Department, Technische Universität München, James-Frank-Strasse 1, 85748 Garching (Germany)</i>) On-Surface Photopolymerization – A Pathway for the Synthesis of Mesoscale-Ordered 2D Polymers
11:00 - 11:30	Coffee Break
11:30 - 12:00 1A-I3	<u>Félix Zamora</u> (<i>Departamento de Química Inorgánica, Universidad Autónoma de Madrid</i>), Rodríguez-San Miguel David, Martín Jesus A., Royuela Sergio, Puigmartí-Luis Josep, Maspoch Daniel Processability of Imine-based 2D Covalent Organic Frameworks: The Role of the Nanostructure Aggregation
12:00 - 12:30 1A-I4	Hongde Yu, <u>Thomas Heine</u> (<i>Technical University (TU) Dresden</i>) Two-dimensional topological polymers (Presented by Hongde Yu)
12:30 - 13:00 1A-I5	<u>Aurelio Mateo-Alonso</u> (<i>POLYMAT, University of the Basque Country UPV/EHU</i>) Merging Distorted Nanographenes and Framework Materials
13:00 - 15:30	Lunch
	Session 1B Chair: Steven De Feyter
15:30 - 15:45 1B-T1	<u>Zhiyong Wang</u> (<i>Max Planck Institute of Microstructure Physics, 06120 Halle, Germany</i>), Renhao Dong, Xinliang Feng On-Water Surface Synthesis of Charged Two-Dimensional Polymer Crystals Enabling Effective Ion Transport
15:45 - 16:00 1B-T2	<u>Ingo Lieberwirth</u> (<i>MPI for Polymer Research</i>) Nanoscale control of the surface functionality of polymeric 2D materials
16:00 - 16:15 1B-T3	<u>Jose L. Segura</u> (<i>Departamento Química Orgánica I, Facultad Ciencias Químicas, Universidad Complutense de Madrid, E-28040, Madrid, Spain.</i>), Marcos Martínez-Fernández, Alejandro de la Peña, Elena Gala, Marta Gordo Lozano, Matías J. Alonso-Navarro, Fátima Suárez Blas, M. Mar Ramos Two-dimensional Covalent Organic Frameworks for Energy Related Applications
16:15 - 16:30 1B-T4	<u>Kejun Liu</u> (<i>Max Planck Institute of Microstructure Physics</i>), Renhao Dong, Xinliang Feng A Highly Doped Quasi-2D Polypyrrole Film Synthesized on Concentrated Sulphuric Acid Surface
16:30 - 16:45 1B-T5	<u>Maxim S. Pshenichnikov</u> (<i>Zernike Institute for Advanced Materials, University of Groningen</i>), Sundar Raj Krishnaswamy, Björn Kriete Double-wall nanotubes as quasi-2D molecular crystals
17:00 - 18:30	Poster session
20:00 - 22:00	Social dinner

September 16th - Day 2 (Friday) 2

09:55 - 10:00	nanoGe Introduction
	Session 2A Chair: Enrique Cánovas
10:00 - 10:30 2A-I1	<u>Eugenio Coronado</u> (<i>Universidad de Valencia - ICMol (Institute of Molecular Science)</i>) Functional Magnetic Molecules in 2D Materials
10:30 - 11:00 2A-I2	<u>David Eciña</u> (<i>IMDEA-Nanociencia, Campus de Cantoblanco, 28049 Madrid, Spain</i>) Tailoring the magnetic anisotropy of mono- and di-nuclear lanthanide metal-organic networks by metal exchange
11:00 - 11:30	Coffee Break
11:30 - 12:00 2A-I3	<u>Mischa Bonn</u> (<i>Max Planck Institute for polymer Research, 55128 Mainz, Germany</i>), Shuai Fu, Enquan Jin, Hiroki Hanayama, Wenhao Zheng, Heng Zhang, Lucia di Virgilio, Akimitsu Narita, Klaus Müllen, Hai I. Wang Conjugated organic frameworks with record charge carrier mobility
12:00 - 12:30 2A-I4	<u>Marcelo Lozada-Hidalgo</u> (<i>The University of Manchester</i>) Ion transport through two dimensional crystals
12:30 - 12:45 2A-T1	<u>Vasileios Balos</u> (<i>IMDEA Nanoscience</i>), Segio Revuelta, Victor Vega, Marco Ballabio, Enrique Cánovas Electrical characterization of organic 2D materials by THz time-domain spectroscopy
12:45 - 13:00 2A-T2	<u>Carla Boix Constant</u> (<i>Universidad de Valencia - ICMol (Institute of Molecular Science)</i>), Samuel Mañas, Eugenio Coronado Interplay between spin-crossover and strain in hybrid inorganic/molecular van der Waals heterostructures.
13:00 - 15:30	Lunch
	Session 2B Chair: Hai Wang
15:30 - 15:45 2B-T1	<u>Sai Manoj Gali</u> (<i>Laboratory for Chemistry of Novel Materials, University of Mons, Belgium</i>), Petru Apostol, Alexandru Vlad, David Beljonne Tunable electronic structure of 2D-MOFs via molecular functionalization. A computational perspective
15:45 - 16:00 2B-T2	<u>Mingchao Wang</u> (<i>Technische Universität Dresden</i>), Shengqiang Zhou, Mischa Bonn, Thomas Heine, Enrique Cánovas, Renhao Dong, Xinliang Feng Electronic Properties of Metal-Phthalocyanine-Based 2D conjugated COFs
16:00 - 16:15 2B-T3	<u>Samuel Mañas-Valero</u> (<i>Universidad de Valencia - ICMol (Institute of Molecular Science)</i>), Javier López-Cabrelles, Guillermo Mínguez-Espargallas, Eugenio Coronado Magnetic and Electronic Properties of Two-Dimensional Metal-Organic Frameworks
16:15 - 16:30 2B-T4	<u>Nadiia Pastukhova</u> (<i>Laboratory of Organic Matter Physics, University of Nova Gorica, Slovenia</i>), Kejun Liu, Renhao Dong, Gvido Bratina, Xinliang Feng, Egon Pavlica Photoexcited charge mobility in quasi two-dimensional polyacetylene
16:30 - 16:35	Closing