

Alejandro Martínez Bueno

● WORK EXPERIENCE

15/06/2015 – 31/07/2015 Zaragoza, Spain

ORGANIC CHEMIST INSTITUTO DE CIENCIA DE MATERIALES DE ARAGÓN

- Synthesis and characterization of organic molecules (Training Period).

01/07/2017 – 30/09/2017 Zaragoza, Spain

RESEARCH CHEMIST INSTITUTO UNIVERSITARIO DE INVESTIGACIÓN EN NANOCIENCIA DE ARAGÓN

- Synthesis and characterization of light responsive amphiphilic block copolymers for the preparation of nanocarriers in water.

15/02/2018 – 30/06/2019 Zaragoza, Spain

RESEARCH CHEMIST INSTITUTO DE CIENCIA DE MATERIALES DE ARAGÓN

- Design and synthesis of organic materials with liquid crystal properties.
- Characterization by different techniques as NMR, FTIR, UV-Vis, POM, DSC, TGA, XRD and CD.

01/09/2019 – 31/07/2023 Zaragoza, Spain

RESEARCH CHEMIST INSTITUTO DE NANOCIENCIA Y MATERIALES DE ARAGÓN

- Design and synthesis of organic materials with liquid crystal properties.
- Characterization by different techniques as NMR, FTIR, UV-Vis, POM, DSC, TGA, XRD and CD.

01/05/2024 – CURRENT Florence, Italy

POSTDOCTORAL RESEARCHER IN CHEMISTRY CHEMISTRY DEPARTMENT UNIVERSITY OF FLORENCE

Preparation and characterization of smectic liquid crystalline polymers with different nanometric porosity for:

- The adsorption of model pollutants and selected emerging organic pollutants from contaminated waters.
- The photocatalytic degradation of the adsorbed pollutants and the reuse of the adsorbent polymers.

● EDUCATION AND TRAINING

17/09/2012 – 28/09/2016 Zaragoza, Spain

BACHELOR OF SCIENCE IN CHEMISTRY University of Zaragoza

Website <https://www.unizar.es/>

01/10/2016 – 30/06/2017 Zaragoza, Spain

MASTER IN MOLECULAR CHEMISTRY AND HOMOGENEOUS CATALYSIS Universidad de Zaragoza

Website <https://www.unizar.es/>

01/10/2018 – 19/01/2024 Zaragoza, Spain

PHD IN ORGANIC CHEMISTRY Universidad de Zaragoza

Website <https://www.unizar.es/>

29/10/2018 – 31/10/2018 Zaragoza, Spain

PRACTICAL COURSE ON THE USE OF NMR SPECTROMETERS. BASIC LEVEL Instituto de Síntesis Química y Catálisis Homogénea

Website <https://www.unizar.es/>

15/01/2020 – 11/03/2020 Consenza , Italy

VISITING PHD STUDENT University of Calabria

19/07/2021 – 23/07/2021 Würzburg, Germany

WEBINAR FUNCTIONAL π -SYSTEMS–ORGANIC MATERIALS DESIGN BY MOLECULAR AND SUPRAMOLECULAR ENGINEERING Center for Nanosystems Chemistry of the JMU Würzburg

Website <https://www.chemie.uni-wuerzburg.de/cnc/>

21/02/2022 – 28/02/2022 Würzburg, Germany

WEBINAR LIQUID CRYSTALS FROM SYNTHESIS TO APPLICATION Center for Nanosystems Chemistry of the JMU Würzburg

Website <https://www.chemie.uni-wuerzburg.de/cnc/>

14/05/2023 – 23/06/2023 Consenza , Italy

VISITING PHD STUDENT University of Calabria

LANGUAGE SKILLS

Mother tongue(s): **SPANISH**

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
ENGLISH	B2	B2	B2	B2	B2

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

DIGITAL SKILLS

Microsoft Word | Microsoft Excel | Microsoft Powerpoint | Molecule editor ChemDraw | Good knowledge of OriginLab Software | • For investigation Data of NMR,CNMR ,LC/MS and XRD (Mestrelab Mnova and High score plus)

PUBLICATIONS

2019

[Beyond liquid crystals: New research trends for mesogenic molecules in liquids](#)

M. Castillo-Vallés, A. Martínez-Bueno, R. Gimenez, T. Sierra, M. B. Ros, J. Mater. Chem. C, 2019

2021

[Supramolecular Functionalizable Linear–Dendritic Block Copolymers for the Preparation of Nanocarriers by Microfluidics](#)

M. Abad, A. Martínez-Bueno, G. Mendoza, M. Arruebo, L. Oriol, V. Sebastián, M. Piñol, Polymers, 2021

2023

[Noncovalent Desing of Columnar LCs on the Way to Nanostructured Functional Materials](#)

R. Gimenez, A. Martínez-Bueno, T. Sierra, In Supramolecular Nanotechnology, 2023

2023

[Soft nanostructures out of star-shaped triazines with flexible amide spacers: liquid crystals with a cubic to columnar transition with memory effect, gels and supramolecular chirality](#)

A. Martínez-Bueno et al., Materials Today Chemistry, 2023

2023

Triphenylamine-Containing Benzoic Acids: Synthesis, Liquid Crystalline and Redox Properties

B. Feringán, A. Martínez-Bueno, T. Sierra, R. Gimenez, *Molecules*, 2023

2024

Dynamically Reconfigurable Complex Liquid Crystal Emulsions

A. Terrel, S. Del Moral, A. Martínez-Bueno, A. Concellón, *Liquid Crystals*, 2024

2024

Effect of Hydrogen Bonding and Chirality in Star-Shaped Molecules with Peripheral Triphenylamines: Liquid Crystal Semiconductors and Gels

A. Martínez-Bueno et al., *Chem. Mater.*, 2024

2024

Chiral ferroelectric nematic liquid crystals as materials for versatile laser devices

C. L. Folcia, J. Ortega, T. Sierra, A. Martínez-Bueno, J. Etxebarria, *Giant*, 2024

CONFERENCES AND SEMINARS

22/11/2018 – 22/11/2018 Zaragoza, Spain

Materiales derivados de trifenilamina para su uso en electrónica molecular

8ª Jornada de Jóvenes Investigadores (Química y Física) de Aragón. **Poster**

30/06/2019 – 05/07/2019 Wroclaw, Poland

Star-shaped liquid crystals based on triphenylamine for organic electronics

15th European Conference on Liquid Crystals. **Oral communication**

23/05/2021 – 28/05/2021 Benidorm, Spain

Functional supramolecular materials based on self-assembling star-shaped triphenylamine-containing molecules

14th European School on Molecular Nanoscience (ESMolNa2021) and 8th Workshop on 2D Materials (W2DM2021). **Oral communication**

21/06/2021 – 24/06/2021 Online

Role of amide spacers in hydrogen bonded star-shaped liquid crystals

British Liquid Crystal Society Meeting 2021. **Oral communication**

16/12/2021 – 16/12/2021 Zaragoza, Spain

Rosetas supramoleculares derivadas de ácido cianúrico y melamina como arquitecturas promotoras de mesofases columnares

9ª Jornada de Jóvenes Investigadores (Química y Física) de Aragón. **Poster**

25/06/2023 – 29/06/2023 Zaragoza, Spain

Engineering hydrogen bonding interactions in star-shaped triazines: liquid crystals with supramolecular memory effect, gels and supramolecular chirality

XXXIX Reunión Bienal de Química. **Flash communication and poster.**

Dichiarazione sostitutiva di certificazione e dichiarazione sostitutiva dell'atto di notorietà ai sensi del D.P.R. 445/28.12.2000

(allegare copia non autenticata di documento di identità del sottoscrittore in corso di validità)

Il/La sottoscritto/a **Alejandro Martínez Bueno** nato a **Colombia** il **09/05/1994** residente in

__Via Antonio Giacomini, 14, 1º, 50132, Florence, Italy__

consapevole delle responsabilità penali cui può andare incontro, in caso di dichiarazioni mendaci, ai sensi e per gli effetti di cui all'art. 76 del D.P.R. 445/2000 e consapevole che, ai sensi dell'art. 13, del Regolamento UE 2016/679 (GDPR), la presente dichiarazione sarà pubblicata sul sito web dell'amministrazione in apposita sezione di Amministrazione Trasparente, sotto la propria responsabilità

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Firma autografa sostituita a mezzo stampa, ai sensi dell'art. 3, comma 2, del D.Lgs.n. 39/1993.

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