MonPlas

Development of a QCL based microplastic analysis system
06/02/2021

Case Studies of non-academic sector involvement in MSCA funded projects

Jordi Valls Conesa

Background

A personal introduction

Jordi Valls Conesa

PhD student at Bruker,
Ettlingen (Germany)

B.Sc. Physics

Barcelona University (UB),
Barcelona (Spain)

M.Sc. Photonics

Polytechnic University of Catalonia (UPC),
Barcelona (Spain)

M.Sc. Thesis

Institute of photonic science (ICFO),
Castelldefels (Spain)

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Project

MonPlas Objective and ESRs

The training of early stage researchers for the development of technologies to **MON**itor concentrations of micro and nano**PLAS**tics in water for their presence, uptake and threat to animal and human life

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Project

MonPlas Consortium

Germany

Denmark

Sweden

UK

Spain

Belgium

Netherlands

MonPlas

Project

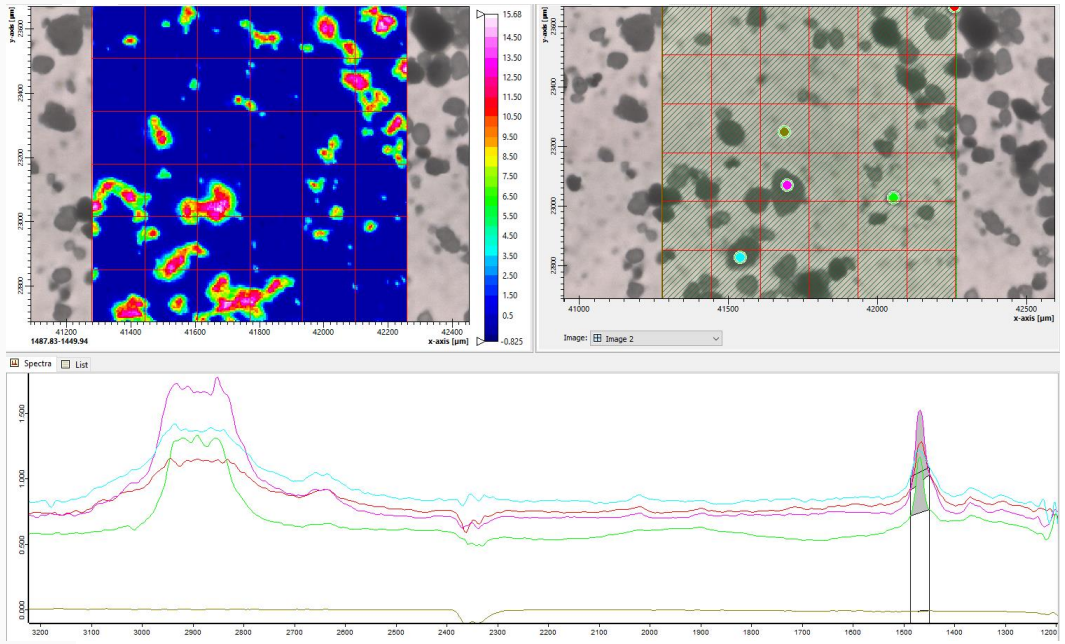
Core MONPLAS team at Bruker

Jordi Valls Conesa	**(ESR)**
Roland Harig	(CTO, scientific supervisor of Jordi)
Stephan Lüttjohann	(R&D, scientific supervisor of Jordi)
Niels Kröger-Lui	(R&D, laser spectroscopy)
Sascha Roth	(R&D, laser spectroscopy)
Dominik Winterauer	(R&D, data science)

BRUKER

MONPLAS Objectives

Develop an improved QCL-based infrared microscope for Microplastics detection and an improved algorithm for its automatic detection and classification.



OPUS images of PE Microplastics from LUMOS II

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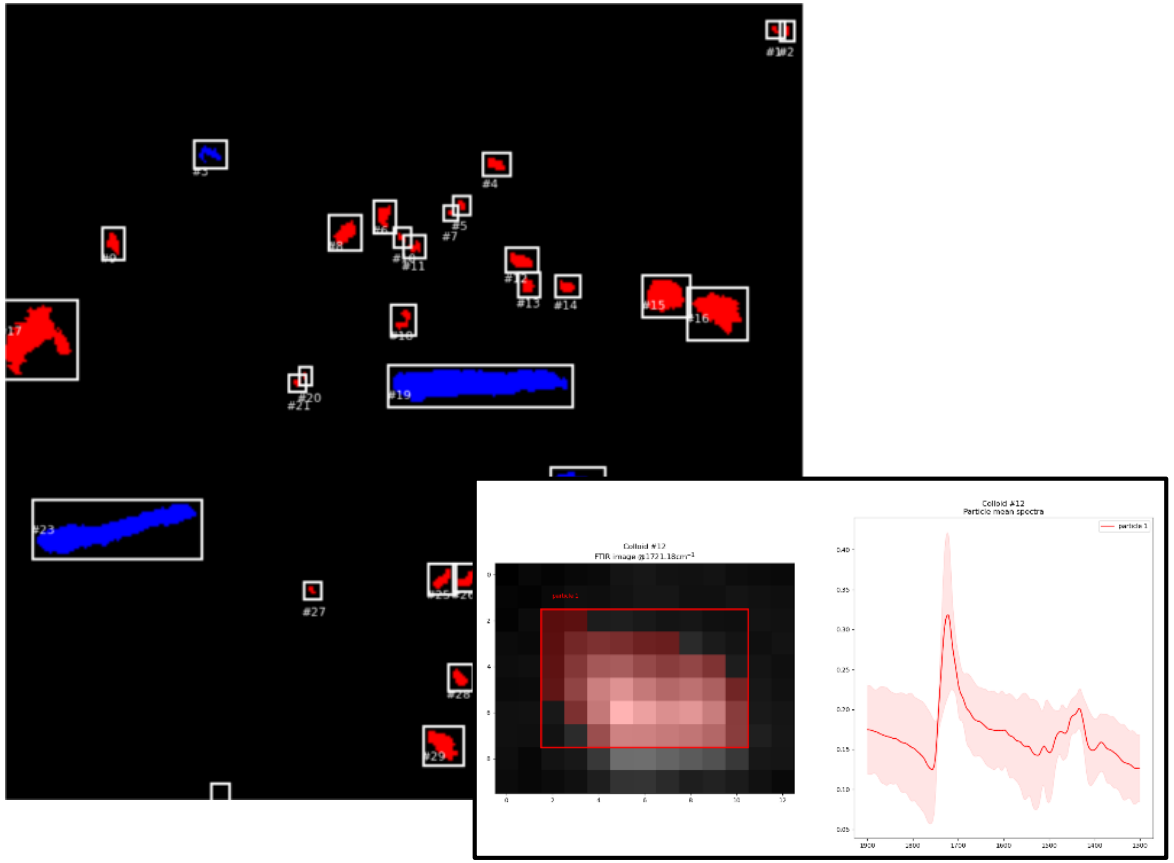

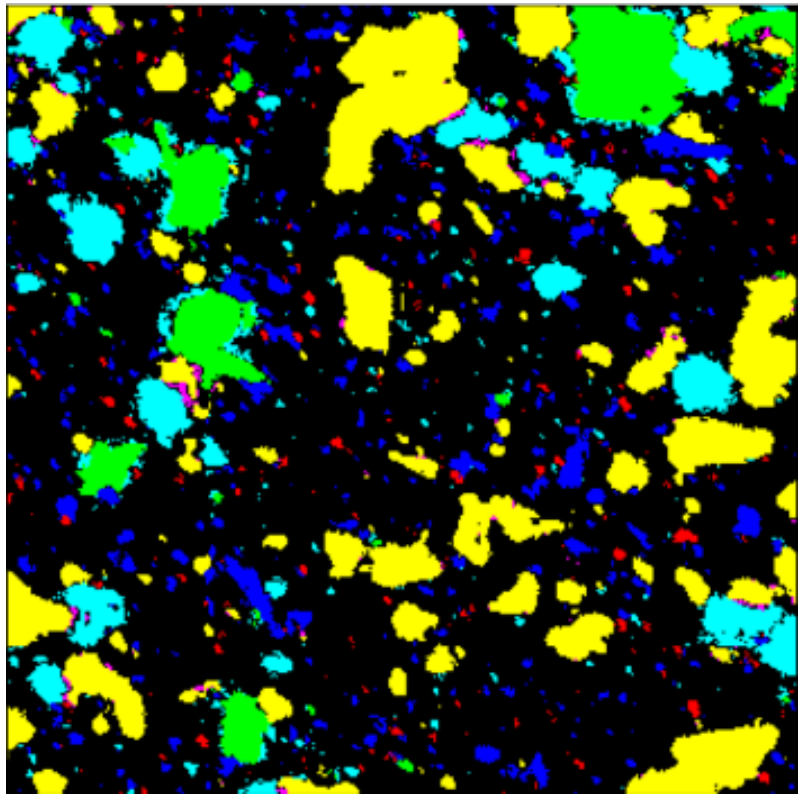

Reasons

Why doing a non-academic PhD?

- MonPlas project was interesting
- The offer at Bruker was related with my skills
- I already worked at a company
- I was looking for a photonics company

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Benefits

Current advantages

- Company schedule and regulations
- Easier administration and assistance
- Photonics workplace experience
- Contact with the academic sector
- Maintain the benefits of a PhD

Benefits

Long term benefits

- Experience for the future
- Possibility to keep working
- Wider contact network
- Accreditation of a PhD

Thank you for your attention