



EU FT-ICR MS

EU_FT-ICR_MS

**European Network of
Fourier-Transform Ion-Cyclotron-
Resonance Mass Spectrometry**

An INFRA for Starting Communities network



The EU_FT-ICR_MS network



11 academic FT-ICR MS center from 9 countries

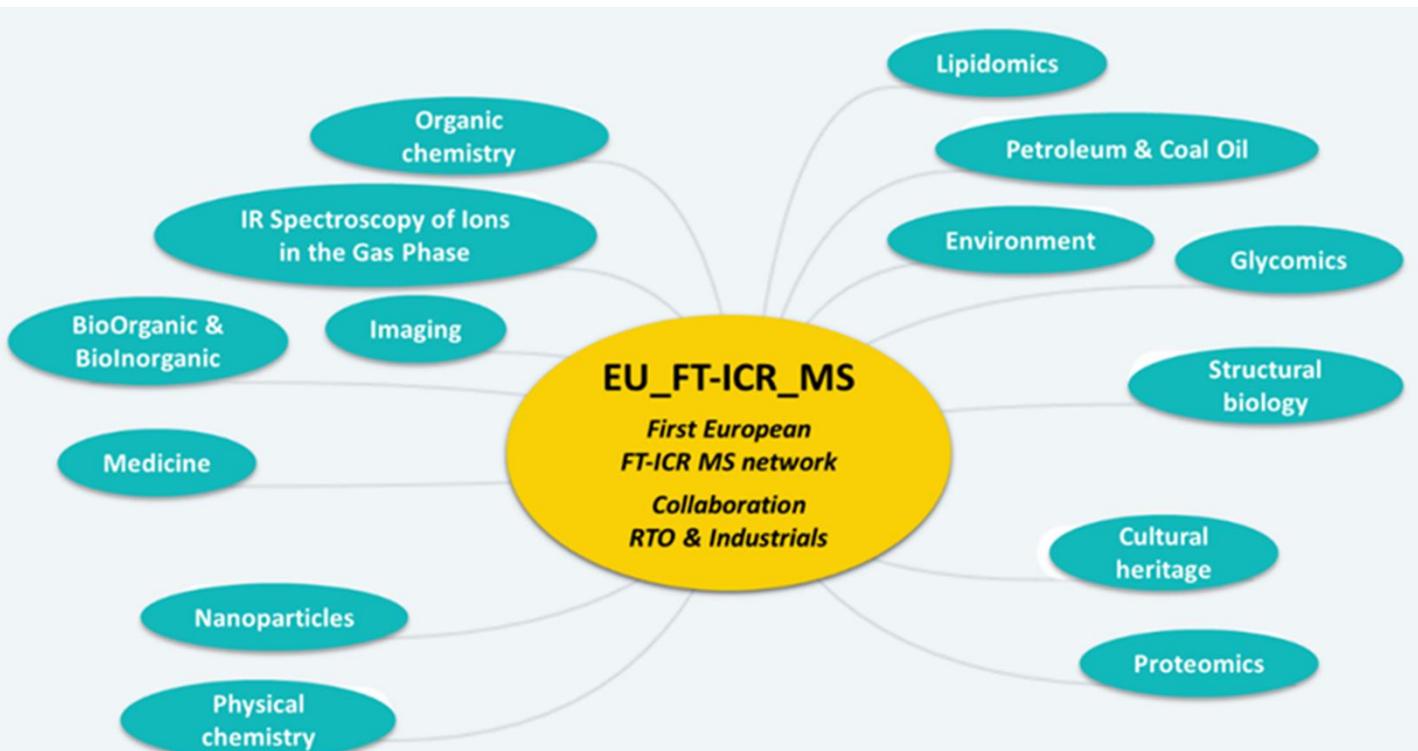
2 companies
CAS4CADE
Absiskey

Bruker Daltonik

Started January 1st 2018, 0 hour



The workpackages



And the very important WP
Open Data & e-Infrastructure

Transnational Access



Formation & training



Joint Research Activities



Transnational access



- **Free access to the academic centers for EU users (25 days per center and per year), academics & industrials**
- **It must be a center not in your own country**
- **Data are public after an embargo period (18 months)**
- **These 2 rules don't apply to SMEs**
- **Travel and accommodation are also taken in charge by EU**
- **Permanently open application on the EU_FT-ICR_MS website**

www.eu-fticr.eu





EU FT-ICR MS

Formation & Training

Grant Agreement (GA) No: 731077
IMSC, Florence, EU_FT-ICR_MS Workshop

FIRST SHORT COURSE OF THE EU FT-ICR MS NETWORK

**ATMOSPHERIC PRESSURE
IONIZATION TECHNIQUES FOR HIGH
RESOLUTION MASS
SPECTROMETRY OF COMPLEX
SAMPLES**

When?

5-7 March 2018

Where?

University of Rostock
Research building LL&M
Albert-Einstein-Strasse 25
18059 Rostock



Universität
Rostock



Traditio et Innovatio

Overview of the program



Tutorial Lectures
Basics of FT-ICR MS
using atmospheric
pressure ionization



Instrument demos

Hands-On Exercises
Electrospray
ionization (ESI) and
Atmospheric
pressure chemical
ionization (APCI)



Data analysis
Comparison of
ionization features
of ESI, APCI and
GC- APCI/
Atmospheric
pressure photo
ionization (APPI)
samples;
In parallel: running
GC – APCI/APPI
measurements



You want to learn more about high
resolution mass spectrometry and
atmospheric pressure ionisation
techniques?

Registration:

please send an E-Mail using the application
form to

martin.sklorz@uni-rostock.de

We will response as fast as possible and
inform you about acceptance.
The application form is available as a
download on our website.

www.zimmermann.chemie.uni-rostock.de/forschung/advanced-mass-spectrometry/hochaufloesende-massenspektrometrie/eu-ft-icr-ms/

NO CONFERENCE FEES !

Each participant (limited seats) will
receive support for travelling and
accommodation.

REGISTER SOON!

EU FT-ICR MS End User School 1

Want to learn theory, practise and the most prominent applications of Fourier transform ion cyclotron resonance mass spectrometry?

When?

20–24 August, 2018

Where?

University of Eastern Finland
Department of Chemistry
Joensuu – Finland
62° 36' 3.924" N 29° 45' 48.708" E



Course overview

Topics

- 🌀 Fundamentals of FT-ICR MS FT-ICR hardware & instrumentation
- 🌀 Basic data acquisition and signal processing
- 🌀 Data post-processing and quality evaluation
- 🌀 Applications of FT-ICR MS in proteomics, metabolomics, petroleomics, structural biology and many more...

Content

- 🌀 Tutorial lectures, short talks, poster session

Social activities

- 🌀 A boat cruise with onboard refreshments/visit to Koli
- 🌀 A midnight smoke sauna and lake swimming experience

Instructors include world renowned experts in the field of FT-ICR mass spectrometry

Organized by EU FT-ICR MS – A European Network funded by EU Horizon 2020 Programme

For more information & application to the course:

www.eu-fticr-ms.eu/EUS1

To navigate to the site, use the QR code below



More information about the venue:
www.uef.fi/mass-spectrometry

Further enquiries: janne.janis@uef.fi

NO PARTICIPATION FEE!

Also, complimentary accommodation, meals and social program are offered! Up to 50 attendees will be selected to the course by the scientific committee on the basis of applications.

APPLY SOON!





Second short course of the EU_FT-ICR_MS network

FT-ICR for gas phase ion spectroscopy and structural characterization

November 5 – 7, 2018

Université Paris Sud
Building 201 P2
Orsay, France



Location :

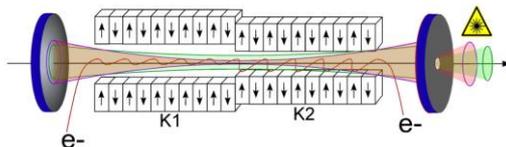
The Université Paris Sud science campus is located 25 km southwest of Paris. It can be reached by local train from both of Paris major airports as well as from the main line train stations (30 min to 1h30 travel time).



Main features of the program

Tutorial lectures

- Principles of action spectroscopy for ion structures in FT-ICR instruments
- Applications for the structural characterization of ions
- Selecting conformers or isomers through ion mobility



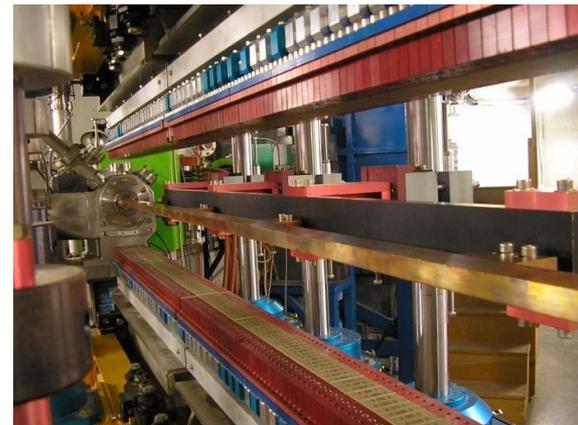
Hands on experiments

- Ion activation with a IR free electron laser
- Ion activation with OPO/OPA table-top laser

Data processing and analysis

- Data processing of action spectra measurements, comparison with simulations.

Attendants are encouraged to suggest the type of samples for which they would like to have hands on training.



Registration and accomodation:

The attendance to the short course is free for selected participants!
The EU_FT-ICR_MS will cover accomodation, registration and some travel fees.

Download the application form on the EU_FT-ICR_MS web site (eu-ft-icr-ms.eu)

and send it by email to:

guillaume.van-der-rest@u-psud.fr

before **September 30th 2018**.

Selected applicants will receive notice of their acceptance to the short course in early October.

Selection will be based on the number of applicants, the scientific project of the attendant, their knowledge in mass spectrometry.



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 731077 .

EU FT-ICR MS 1st Advanced User School

*Want to master
Fourier transform ion cyclotron resonance
mass spectrometry?*

When?

April 2019

Where?

Universidade de Lisboa
Laboratório de FT-ICR e
Espectrometria de Massa Estrutural
Lisboa – Portugal



Ciências
ULisboa

Course preview

- Advanced FT-ICR MS hardware & instrumentation
- Data acquisition and signal processing beyond FT
- Ion motion in ICR: Pushing the boundaries of resolution
- Extreme resolution and application of isotopic fine structure
- Applications in complex mixtures, protein analysis, forensics, environment

Content

- Tutorial lectures, short talks, poster session
- Advanced instrument tuning
- Computational sessions

Social activities

- Welcome reception and get together in Lisboa
- Half day trip to a breathtaking location in the outskirts of Lisboa
- Free afternoon where your imagination takes you!

For more information &
application to the course:

<http://ft-icr.rd.ciencias.ulisboa.pt/>

caac@fc.ul.pt

*Organized by EU FT-ICR MS – A European
Network funded by
EU Horizon 2020 Programme*

NO PARTICIPATION FEE!

Accommodation, meals and social
program are offered!

Up to 50 students
selected by the scientific committee





EU FT-ICR MS

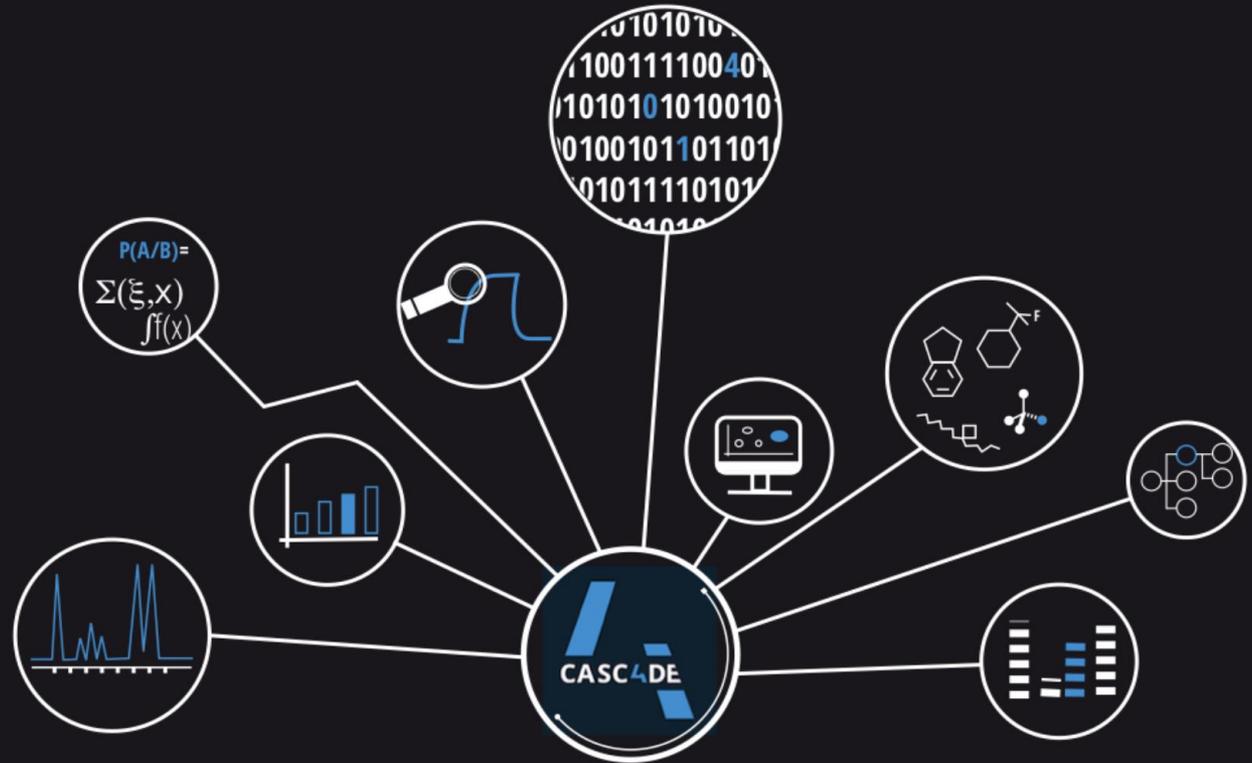
Open Data & e-Infrastructure

Grant Agreement (GA) No: 731077
IMSC, Florence, EU_FT-ICR_MS Workshop

The SME CASC4DE



HOW CAN **BIG DATA** BOOST YOUR **SCIENCE** ?



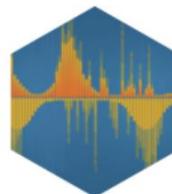
innovating solutions **TO ACCELERATE** your research and **CREATE** new value from your results



4 CASC4DE - OUR EXPERTISES



- Mathematics
- Bayesian statistics
- Compressed Sensing
- Massive number crunching



- Signal processing
- Innovative high-speed data processing algorithms and techniques to gain insights from data



- Custom Software Development
- Embeddable software tools



- Biophysics, Sciences
- NMR, Mass spectrometry
- Analyses



Open data and e-Infrastructure



Data management plan

To address the issues in intellectual property, confidentiality and scientific policies



Metadata specification

Metadata and data formats to be used in the common infrastructure data exchanges



Data storage and data access

To provide access and storage of user data to users from any personal computer



Virtualization of instrument access

An interface for giving a complete control to the user of its experience on a distant FT-ICR spectrometer



Data processing and data mining

Development of specific processing, analysis and mining tools



EU FT-ICR MS

TransNational Access

Grant Agreement (GA) No: 731077
IMSC, Florence, EU_FT-ICR_MS Workshop



EU FT-ICR MS Workshop Prague



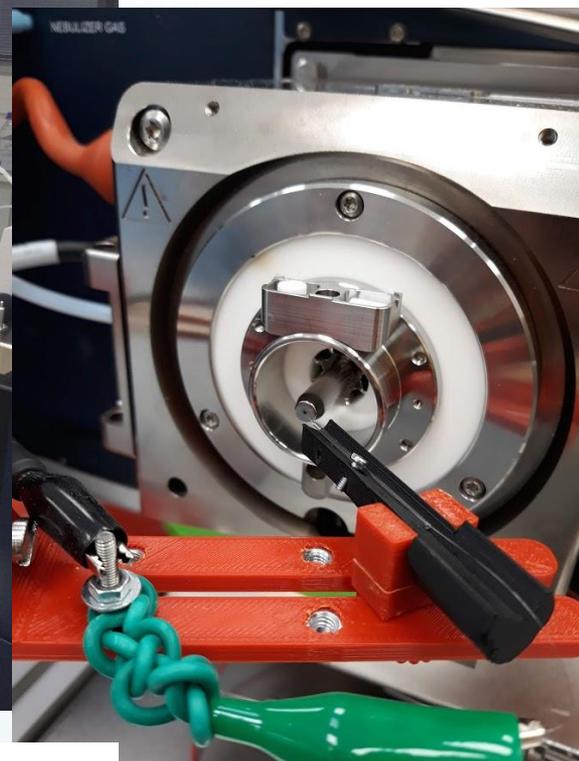
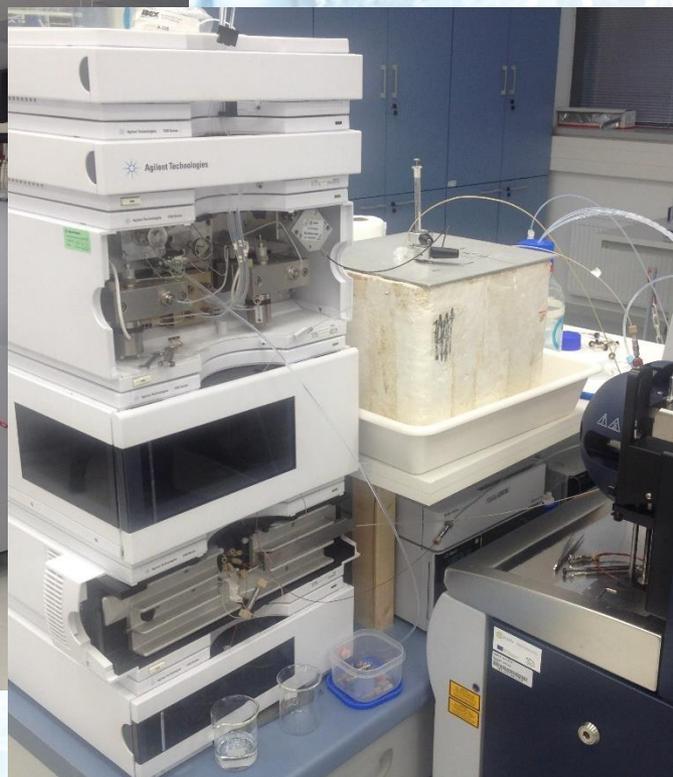
DAN FABRIS

28th August 2018 | **XXII International Mass Spectrometry
Conference** | Florence

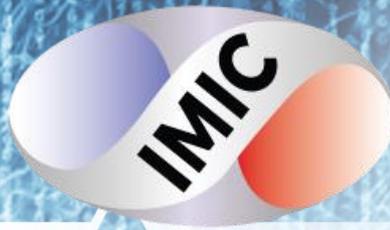


AVAILABLE INSTRUMENTATION

EU FT-ICR MS



CID, SORI, ETC, ECD and IRMPD dissociation techniques

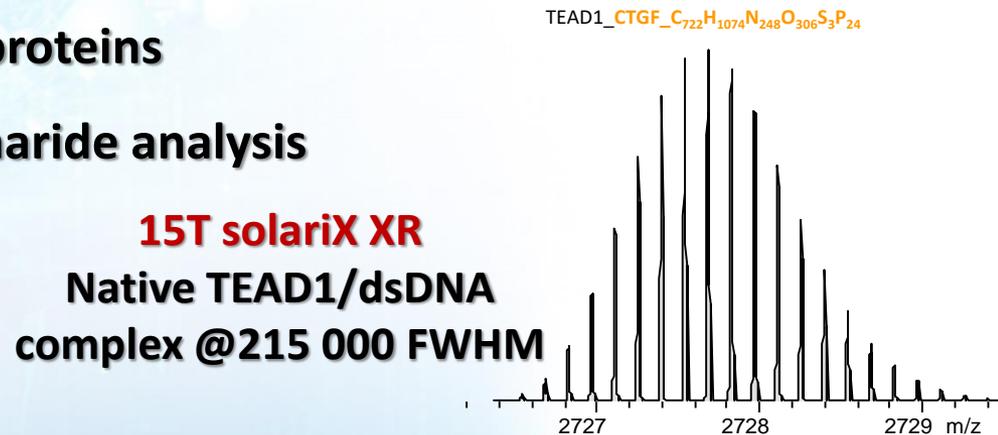
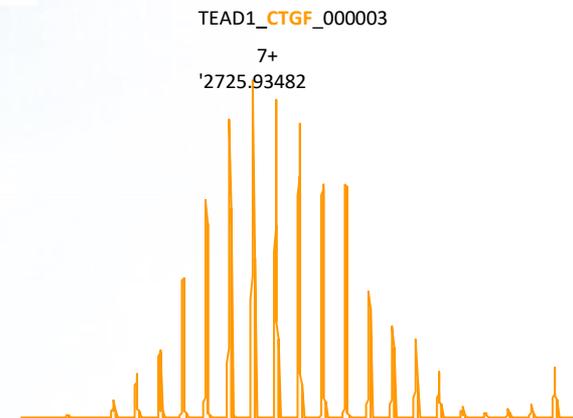


SERVICES



EU FT-ICR MS

- Intact protein analysis / TopDown analysis
- Native electrospray
- Hydrogen/deuterium exchange
- Chemical covalent labeling and cross-linking
- Fast photochemical oxidation of proteins
- PTM characterization / oligosaccharide analysis





SAPIENZA
UNIVERSITÀ DI ROMA



Address: Dipartimento di Chimica e Tecnologie del Farmaco, Università degli Studi di Roma "La Sapienza", P.le A. Moro 5, I-00185, Roma (Italy)

Prof. Maria Elisa Crestoni

Prof. Simonetta Fornarini

Dr. Barbara Chiavarino (research associate)

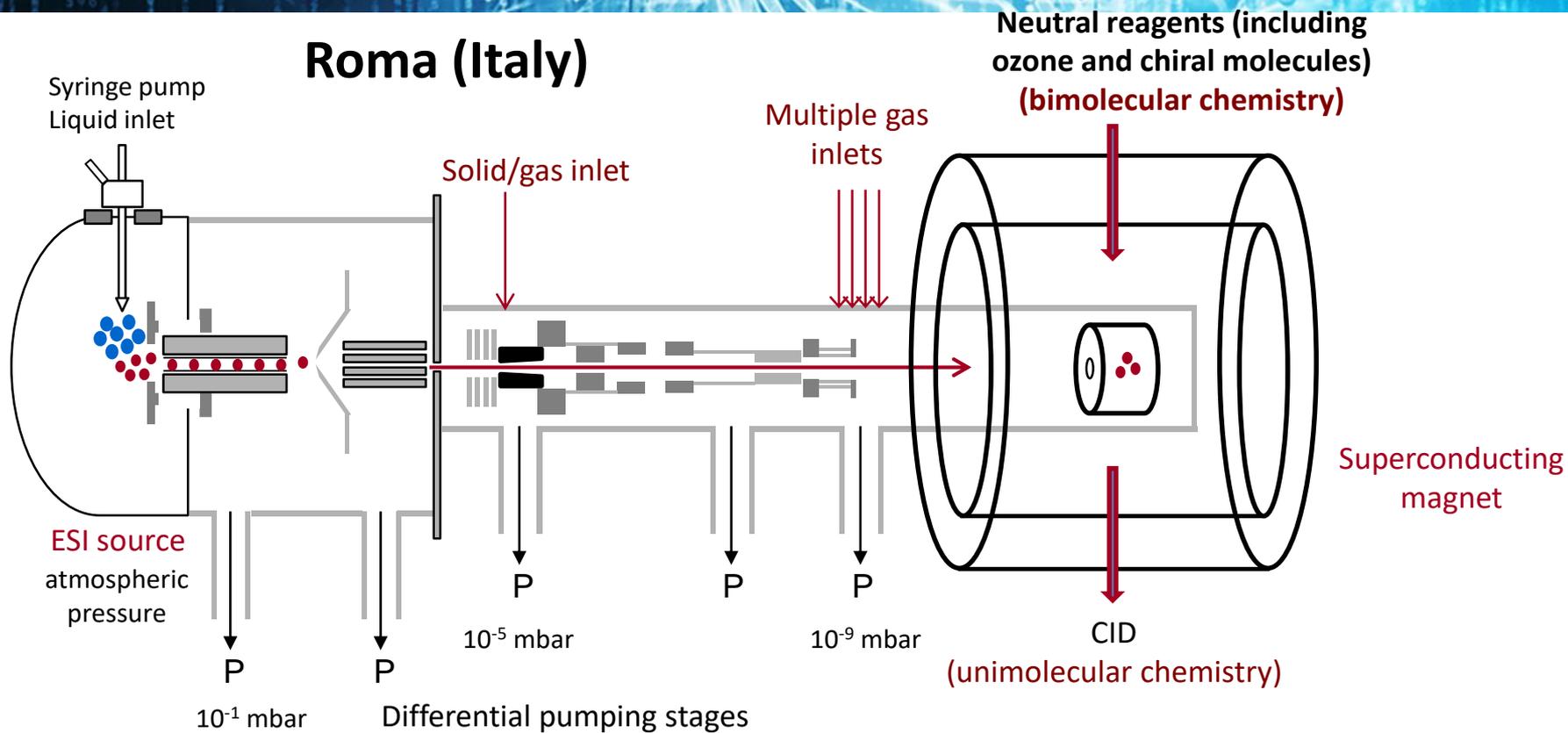
Davide Corinti (PhD student)

Alessandro Maccelli (PhD student)

Annito Di Marzio, Valentina Lilla (technicians)

MSc students

Roma (Italy)



Other sources: nanoESI, EI/CI

m/z range starting from 14.5 Da

Expertise in:

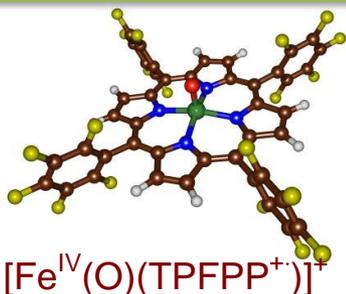
- **ion-molecule reactions** : kinetics and thermodynamic data (free energy ladders, linear free energy relationships e.g. $\log k$ vs. $\log K$ or IE (calculated and exp.), use of kinetics as probe of ion structure, and **ion chemistry in general**.

Research areas include:

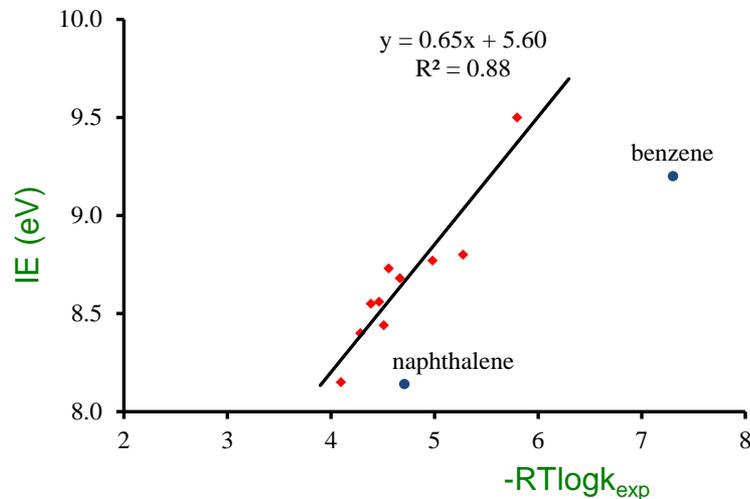
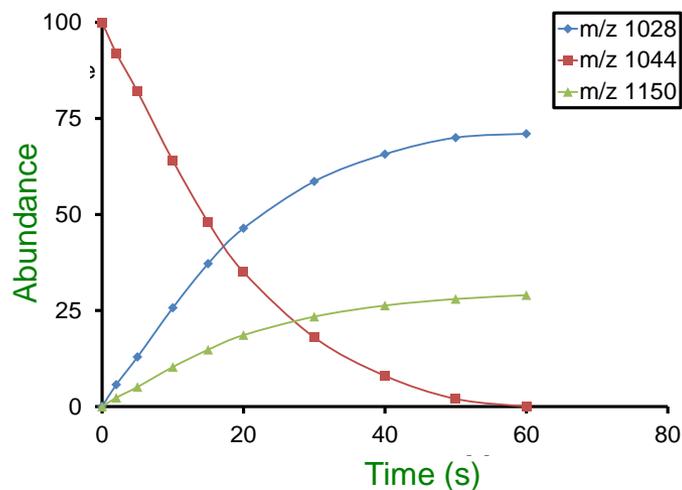
- **non-covalent interactions** (electrostatic and hydrogen bonding interactions, cation/anion- π and π - π interactions);
- **reaction mechanisms and reactive intermediates** in (bio)inorganic / organic chemistry.
- **foodomics**

Few examples in the following slides...

Kinetics and linear free energy relationships: Cytochrome P450 model compound I



Structure of SubO determined by ion-molecule reaction kinetics

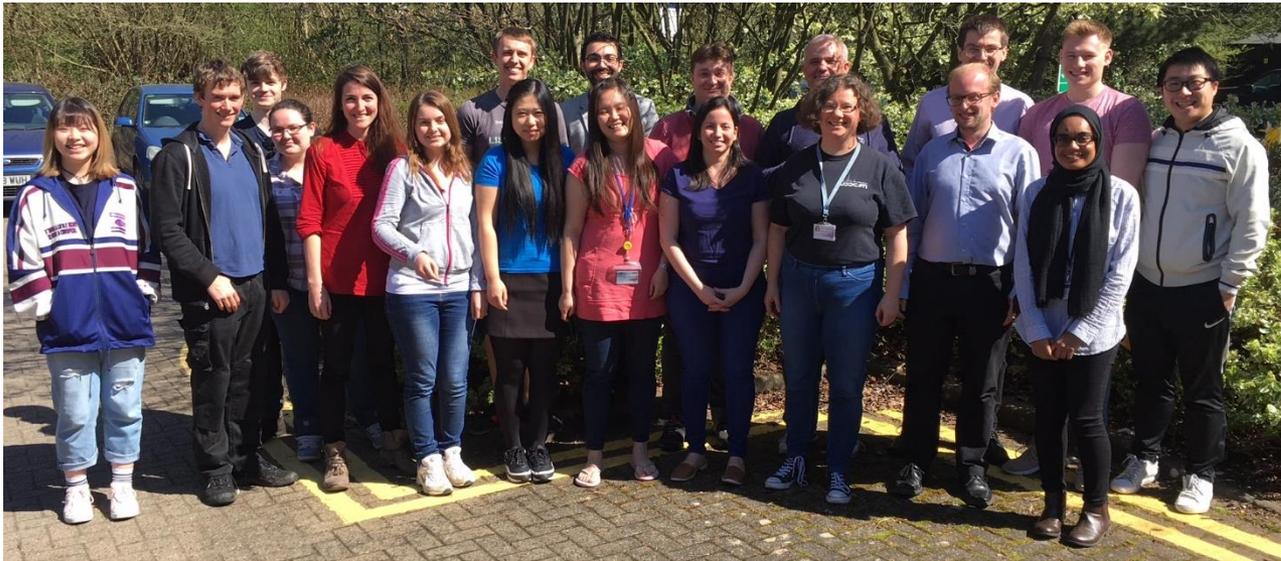


Oxidation mechanism determined by linear $\log k_{\text{exp}}$ vs. IE relationship



Who are we?

The joint research groups of Peter O'Connor and Mark Barrow



Horizon 2020
European Union funding
for Research & Innovation



12 T Solarix FTICR mass spectrometer

Capabilities:

500k RP routinely, >3M RP with effort

<0.3 ppm typically

IRMPD, ECD, EID, EDD, CAD

UVPD (213 nm / 193 nm) soon...

2D mass spectrometry routinely with IRMPD, ECD, EID, EDD



Finding covalent and non-covalent binding sites in protein.

Finding amyloid aggregation points

Top-down de-novo protein sequencing.

Polymer tandem mass spectrometry

Small molecule tandem mass spec using many fragmentation techniques

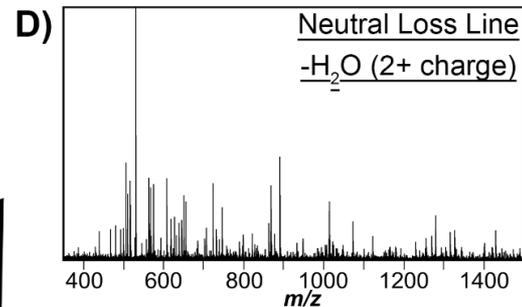
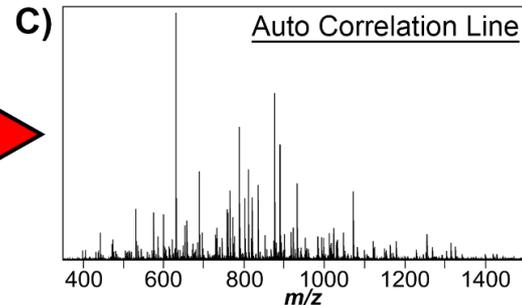
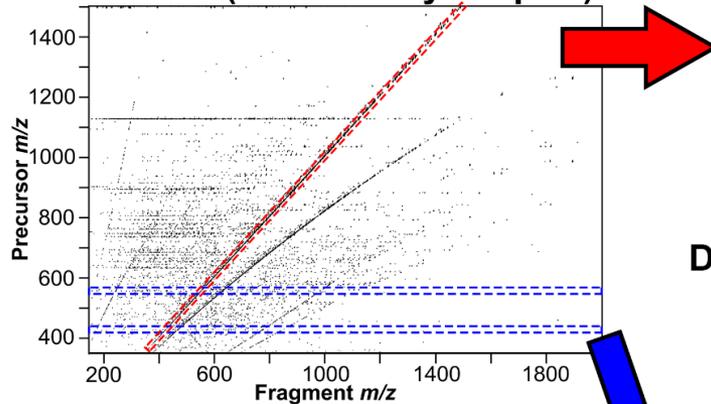
Glycomics, PTM-omics, genomics, ...

2DMS of anything...

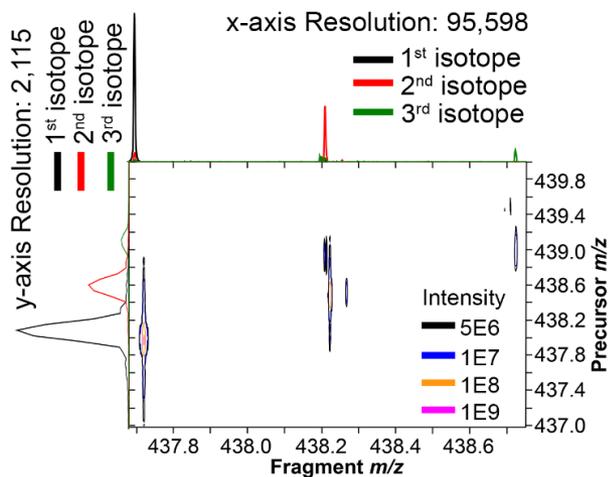


With Mark Barrow: Petroleomics, environmental analysis, biofuels, and statistically defined automated data analysis.

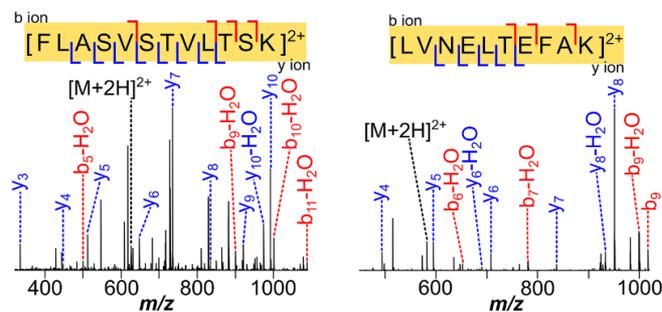
A) 2D-MS (1 MW * 8 K) of digested 5-CPs (enriched by RP pH2)



B) Zoom in *m/z* 437.8



E) Peptides identified by 2D-MS only





Instrument :

- Bruker Solarix XR (harmonized cell) FT-ICR 9.4 T
- CID, ECD, ETD IRMPD dissociation
- Hyphenated with nanoLC

Specificity :

- Cultural heritage samples (proteins, lipids and carbohydrates)
- Bidimensionnal (2D FT-ICR) at precursor high resolution

Staff :

- Technical staff : Dr Fabrice BRAY
- Associated staff : Pr Caroline TOKARSKI
- Scientific PI : Christian ROLANDO



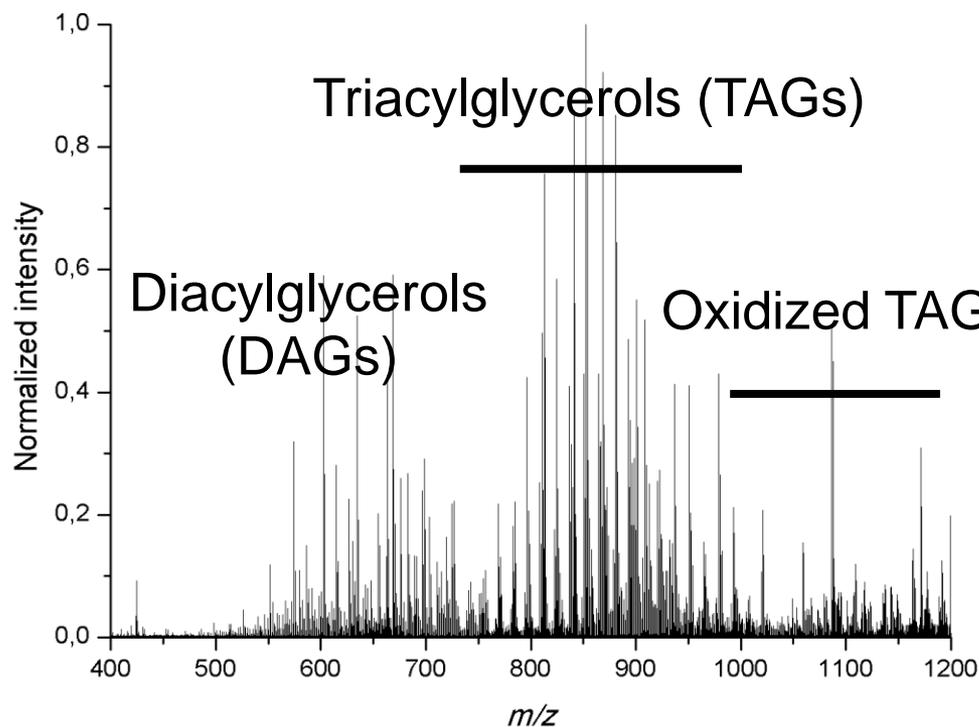
EU FT-ICR MS



Université
de Lille

Cultural Heritage and Archaeological Samples

See : Caroline TOKARSKI, FOr.03 - Cultural heritage and archaeology, Art and cultural heritage natural polymers by bottom up and top down approaches

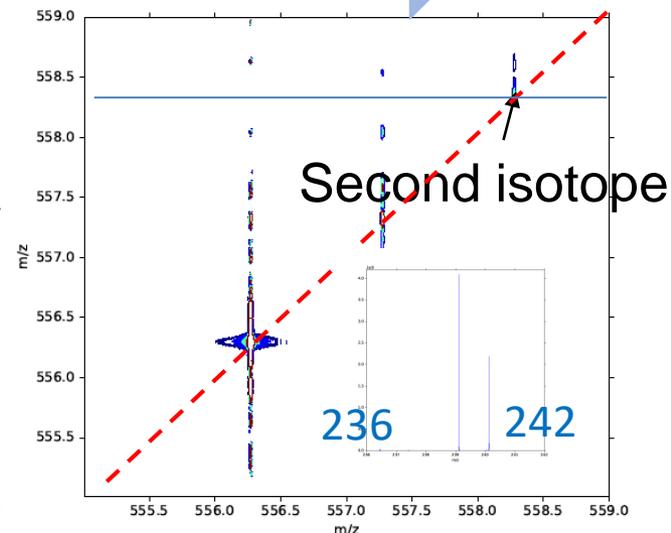
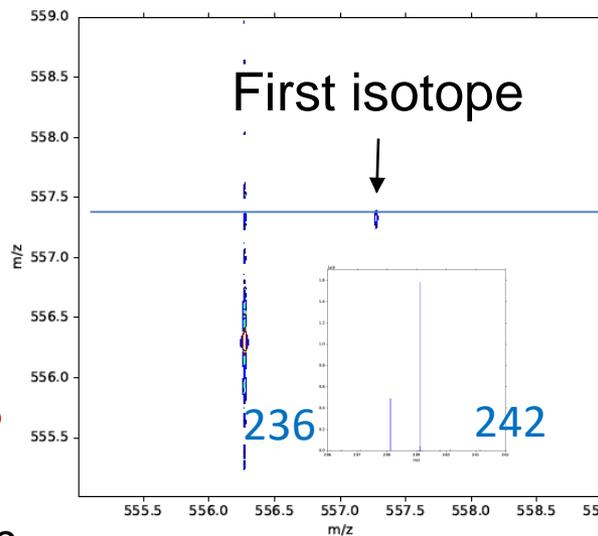
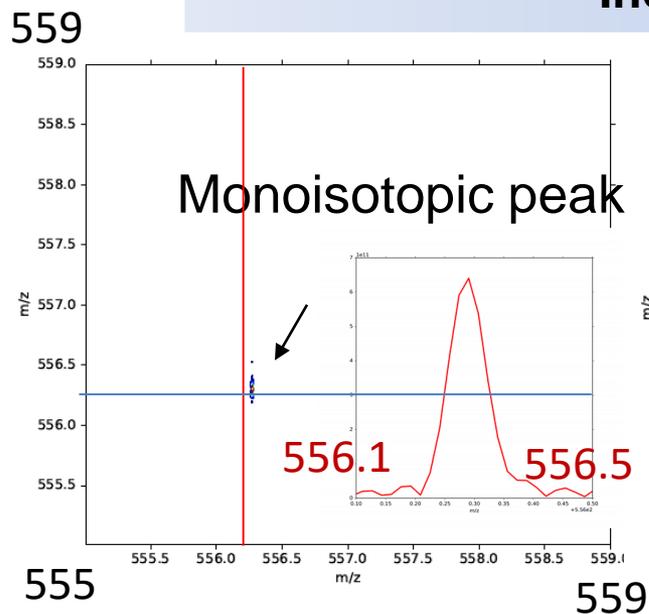


Ceramic aryballos from Tenedo necropolis (Bad Zurzach), Switzerland, 41 - 54 AD



Bidimensionnel (2D FT-ICR) at precursor high resolution

Bray, F., Bouclon, J., Chiron, L., Witt, M., Delsuc, M. A., & Rolando, C. (2017). Nonuniform Sampling Acquisition of Two-Dimensional Fourier Transform Ion Cyclotron Resonance Mass Spectrometry for Increased Mass Resolution of Tandem Mass Spectrometry Precursor Ions. *Analytical chemistry*, 89(17), 8589-8593



Precursor resolution > 10 000 @ m/z 400

Universität
Rostock



Traditio et Innovatio

HelmholtzZentrum münchen

Deutsches Forschungszentrum für Gesundheit und Umwelt

JOINT MASS SPECTROMETRY CENTRE



Chair for
Analytical
Chemistry

Universität
Rostock

Thermal Analysis /
Photonization MS



Thorsten Streibel

Aerosol and Laser-
MS



Johannes Passig

Ultra-high Resolution
MS



Martin Sklorz

Aerosol
Chemistry



Jürgen Schnelle-Kreis

Aerosol
Toxicology



Sebastian Öder

Aerosol
Physics



Thomas Adam

Bio-
monitoring



Jutta Lintelmann

Comprehensive
Separation



Thomas Gröger

HelmholtzZentrum münchen
German Research Center for Environmental Health

CMA
Cooperation Group
Comprehensive
Molecular Analytics

der Bundeswehr
Universität **München**

Chair for Chemistry,
Environmental- & Energy
process technology

photonion

Spin-off Company
Photoionization mass
spectrometry and online
process analytics



Ralf Zimmermann
University Rostock
Chair for Analytical
Chemistry and Head of
the Cooperation Group
Complex Molecular
Analysis



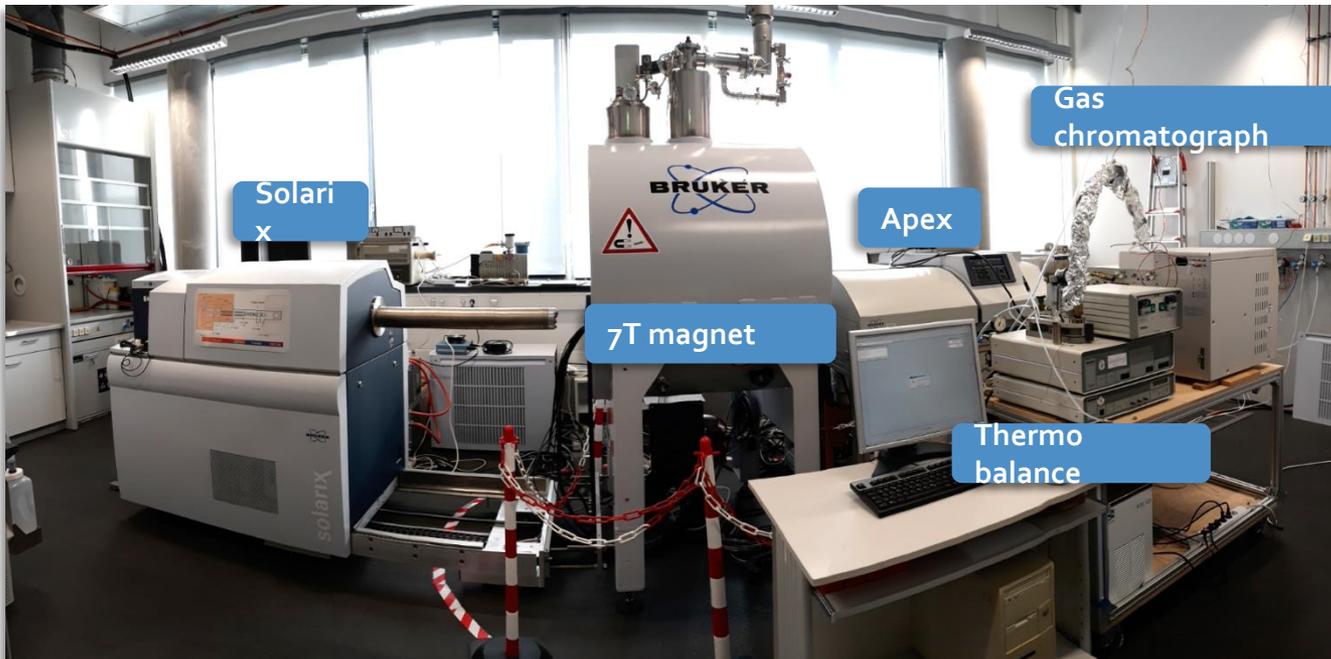
Aerosol & Health

Enabling
Technologies

(Staff: about 40 people)



View at Rostock FTICR -MS laboratory



FTMS laboratory at the interdisciplinary faculty of the University of Rostock

Ion Sources available

@Solarix (direct liquid infusion)

- ESI
- APCI
- APPI (Krypton and Xenon lamp)

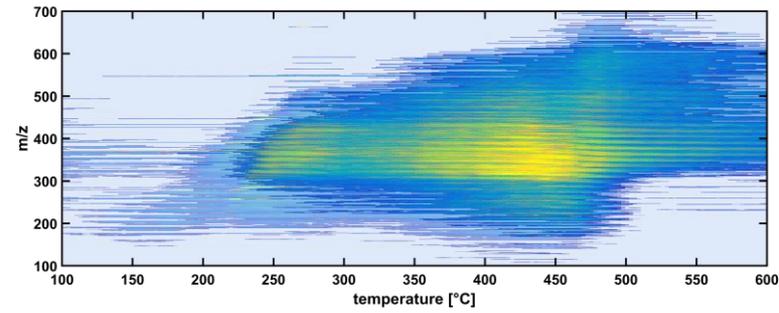
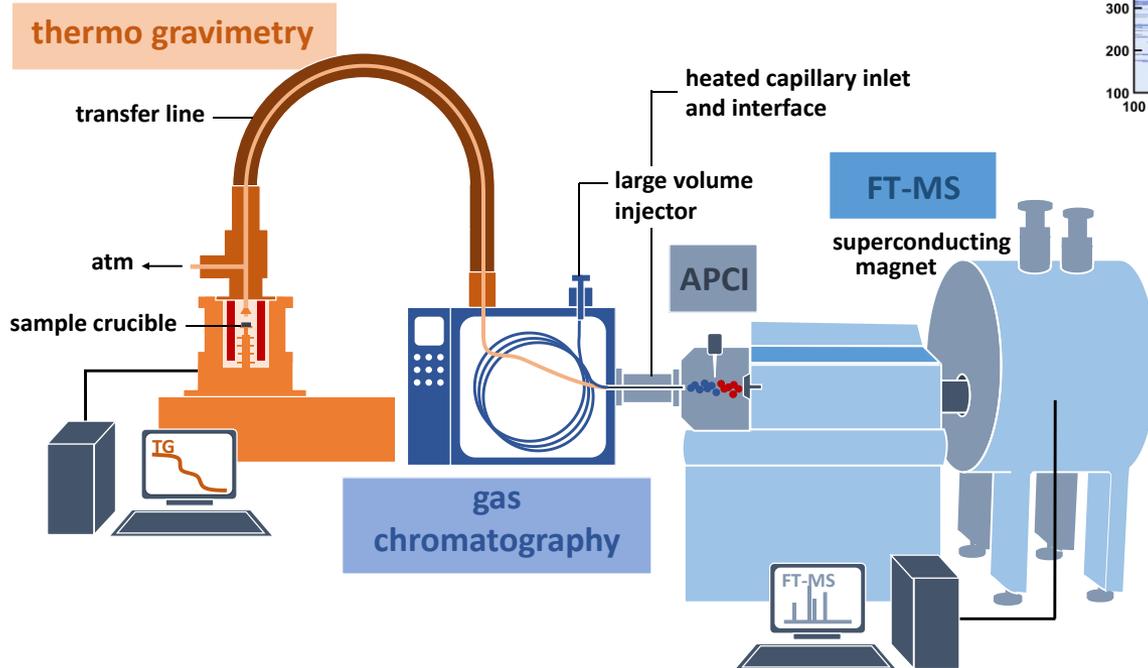
@Solarix

- MALDI

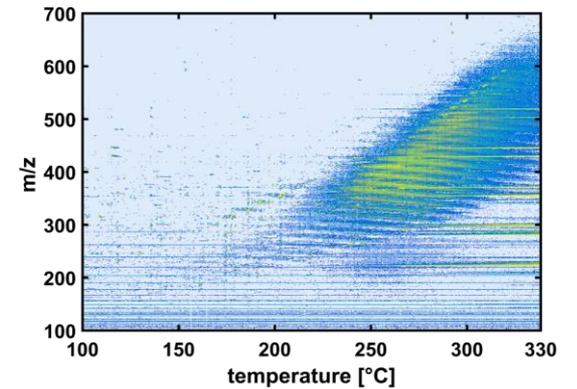
@APEX (coupled to TG or GC)

- APCI
- APPI (Krypton and Xenon lamp)
- APLI (266nm NdYag)

Gas chromatography and evolved gas analysis (APCI)



evolved gas analysis / pyrolysis of bitumen



gas chromatography of bitumen

Special ionisation techniques



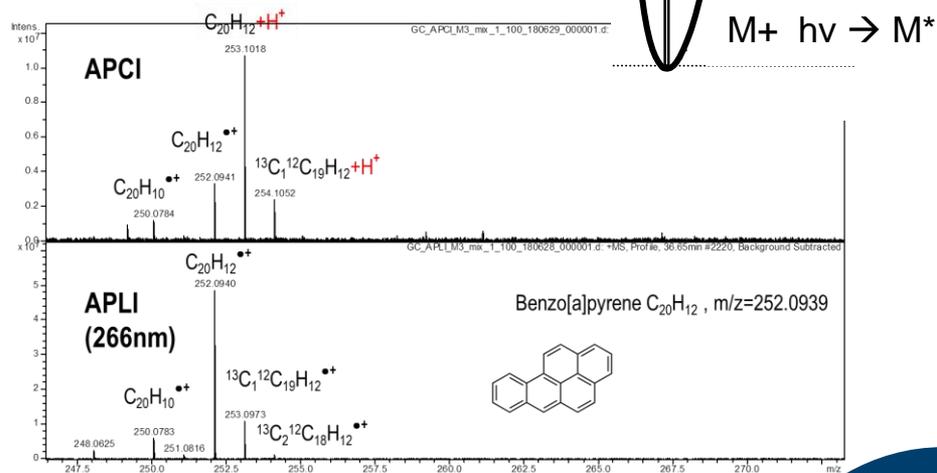
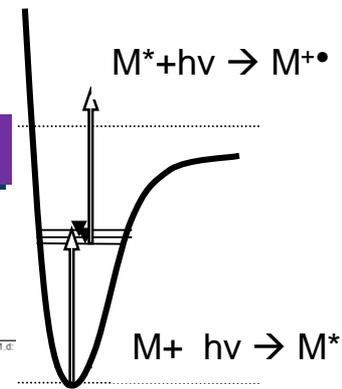
Single photon ionization (APPI)

→ universal

	type of UV lamp and photon energies	Compounds	Ionisation energy [eV]
INERT		N ₂	15,6
		H ₂ O	12,6
		Acetonitril	12,2
		O ₂	12,1
IONISATION	Argon (11.2 eV)	Methanol	10,8
		Isopropanol	10,2
		Hexan	10,1
	Krypton (10.0 and 10.6 eV)	Heptan	9,9
		Aceton	9,7
		Pyridin	9,3
		Benzol	9,2
		Toluol	8,8
	Xenon (8.4 and 9.6 eV)	Naphthalin	8,1
		Anthracen	7,4

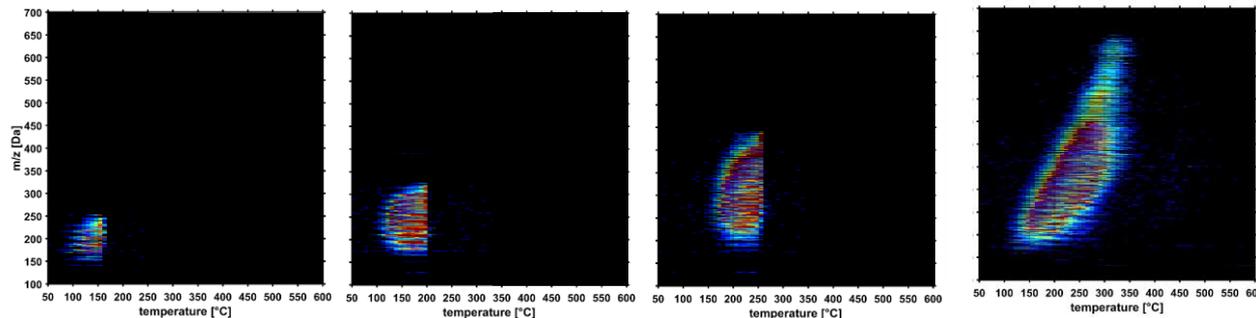
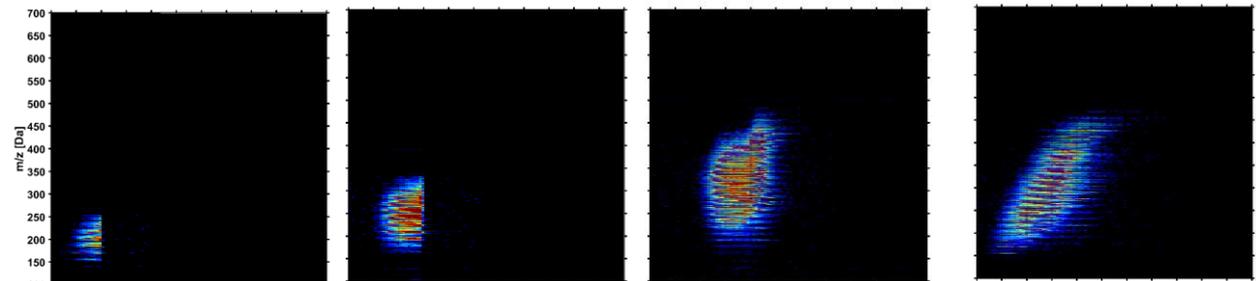
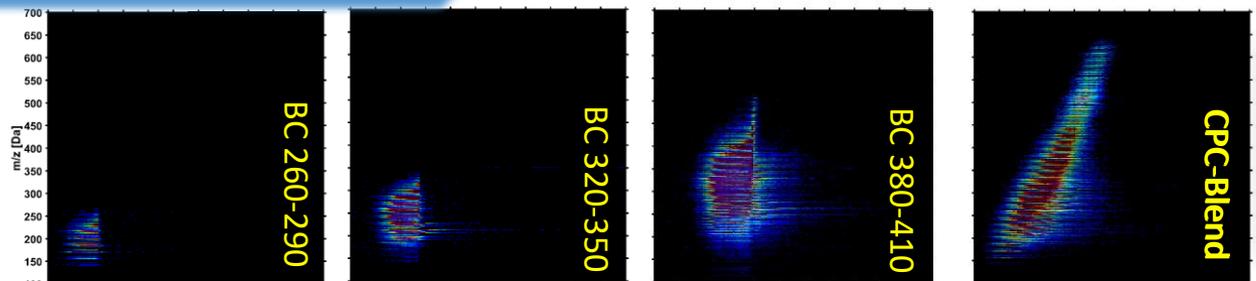
Multiphoton ionization (APLI)

→ high selective and sensitive for aromatic compounds



Petroleomics

Temperature resolved chemical profile



Crude oil distillation cuts



CPC crude oil blend



**UNIVERSITÉ
DE ROUEN**

30,000 Students



Normandie Université

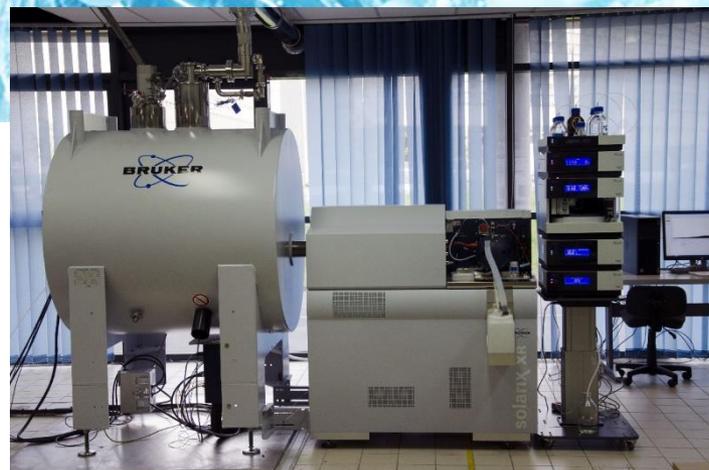
70,000 Students





Instrument

- 12 T Solarix XR
- Highly Complex mixtures
 - Petroleum
 - Polymers
 - Environmental samples
 - Metabolomics
- Ionization
 - API (ESI, APCI/APPI, DIP)
 - MALDI/LDI
- Glove Box coupling
 - Air sensitive compounds analysis



RÉGION
NORMANDIE



ERDF



TOTAL

Staff

- Group leader: Carlos Afonso (Prof.) 
- Scientific officer: Helene Lavanant (Ass. Prof.)
Organic/inorganic clusters, peptide structure... 
- Reception Manager: Isabelle Schmitz (Res. Ing.)
Natural substances, metabolomics 
- Corinne Loutelier (Ass. Prof.)
Glycans, Lipids, Polymers... 
- Marie Hubert (Res. Ing.)
Polymers, Petroleomics... 



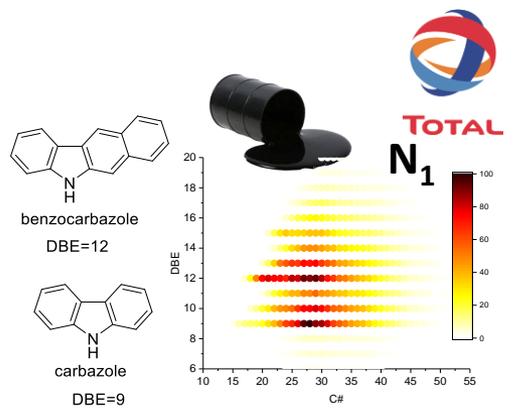
C2MC

Complex Matrices
Molecular Characterization



Complex mixtures analysis

Titan atmosphere particles



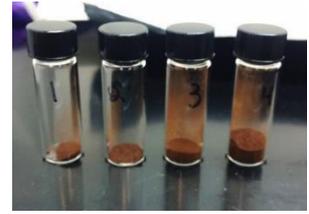
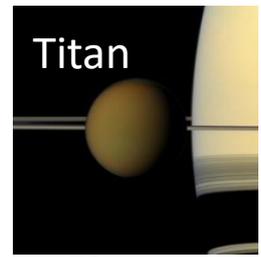
Petroleomics

Environment



solarix XR 95 % N₂
5 % CH₄

LATMOS
Nathalie Carasco



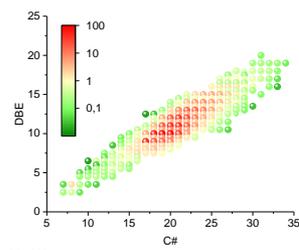
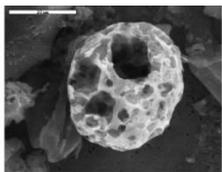
Tholinomics



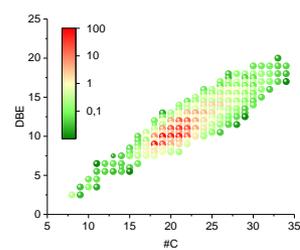
particulate matter analysis



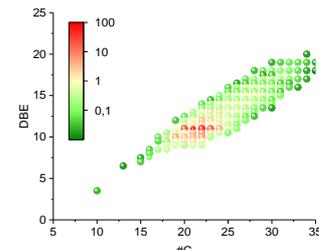
biomass combustion



05



06



07



Orsay (France) site summary

Instrument :

- Bruker APEX Qh FT-ICR 7 T (installed 2006)
- Three IR laser sources coupled with the FT-ICR mass spectrometer:
 - Table-top OPO/OPA (2300 cm^{-1} – 4000 cm^{-1}) laser (Laser Vision).
 - CLIO Free Electron Laser facility ($400\text{-}2000\text{ cm}^{-1}$)
 - CO_2 fixed wavelength laser

Specificity :

- Using specific activation through wavelength tuned IR action spectroscopy
- Characterization and quantitation of isomers and structural characterization
- Current developments on coupling ion mobility with IR spectroscopy (DIMS).

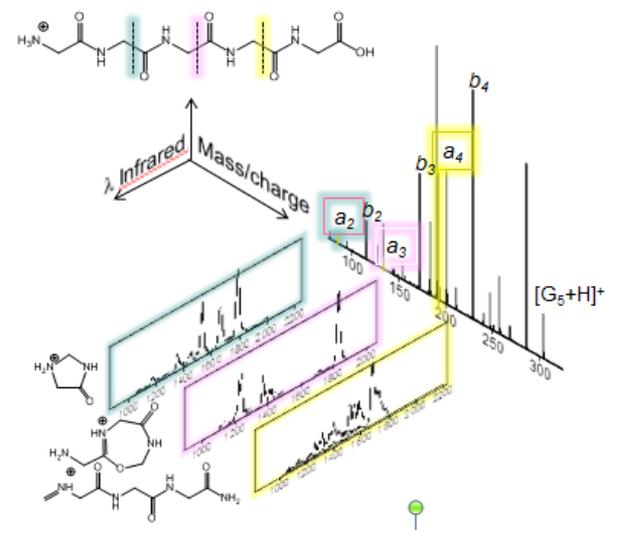
Staff :

- Scientific PI : P. Maître
- Technical staff : E. Loire
- Associated staff : F. Halgand, D. Scuderi, G. van der Rest



Infra-red activation combined with mass spectrometry

Bruker Apex IV
Hybrid FT-ICR



- Simple implementation, based on commercial instrumentation and software.
- Ambient temperature ions, collisionnally thermalized.
- IR activation can be used for all ion types, including those **strongly bonded**.
- IR spectroscopy can be integrated to MSⁿ sequences:
IR spectra of fragment ions (CID+IR, ECD+IR) and ion molecule reaction products.

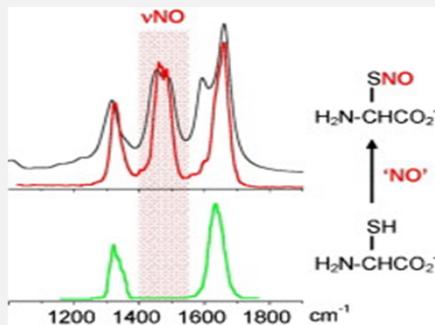


An example: characterization of post translational modifications

- Phosphorylation:
 - IR signature of pTyr, pSer, and pThr
 - IR characterization of phosphate containing peptides
- Nitrosylation
 - IR signature of S-nitrosylation

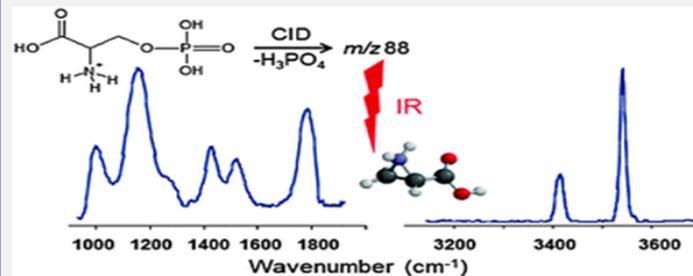
Parent⁺ \longrightarrow Fragment⁺
Only if IR on resonance with a vibrational mode of parent

S-Nitrosylation evidenced by IRMPD



Int. J. Mass Spectrom. **330-332** 160-167 (2012).

IR characterization of CID fragment of phosphate containing peptides

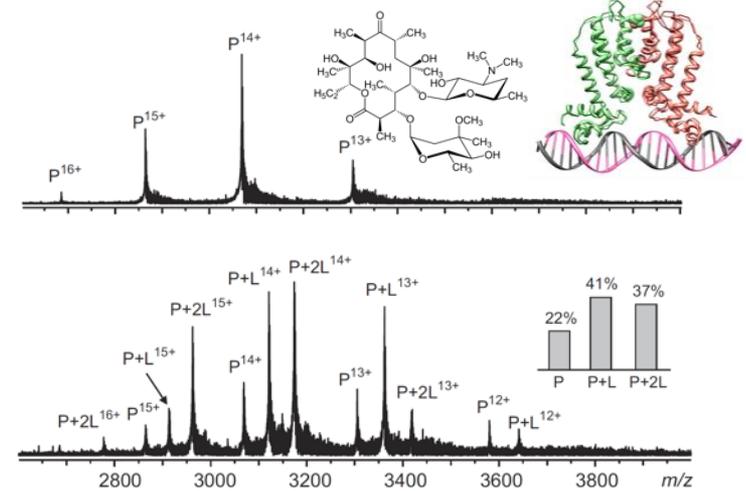
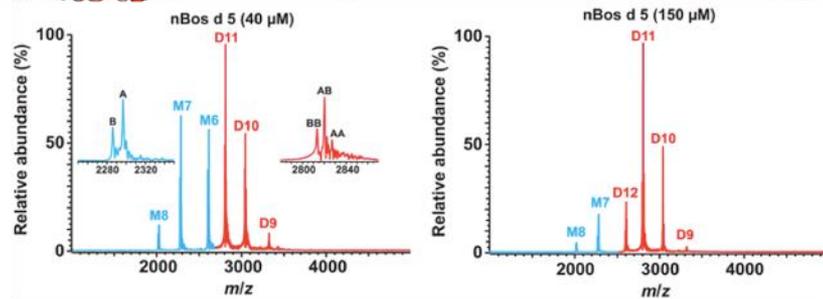
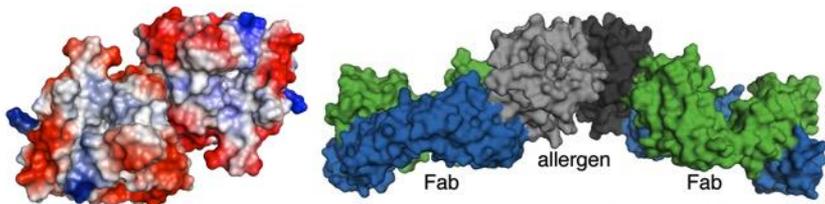
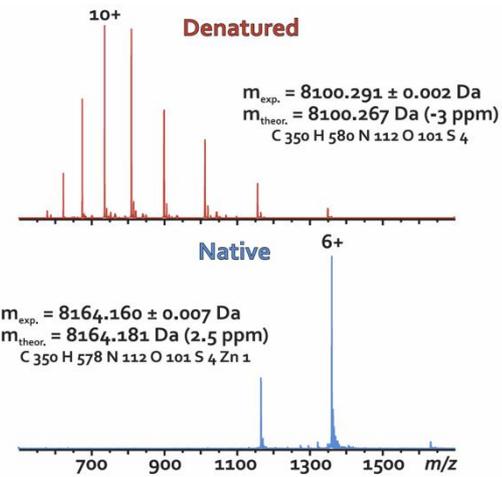
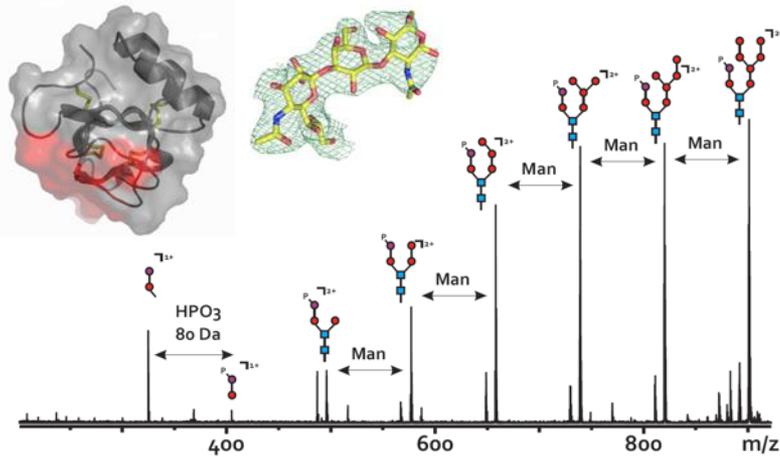


Chem. Commun. **50** 3845-3848 (2014)

12-T Bruker Solarix XR FT-ICR MS

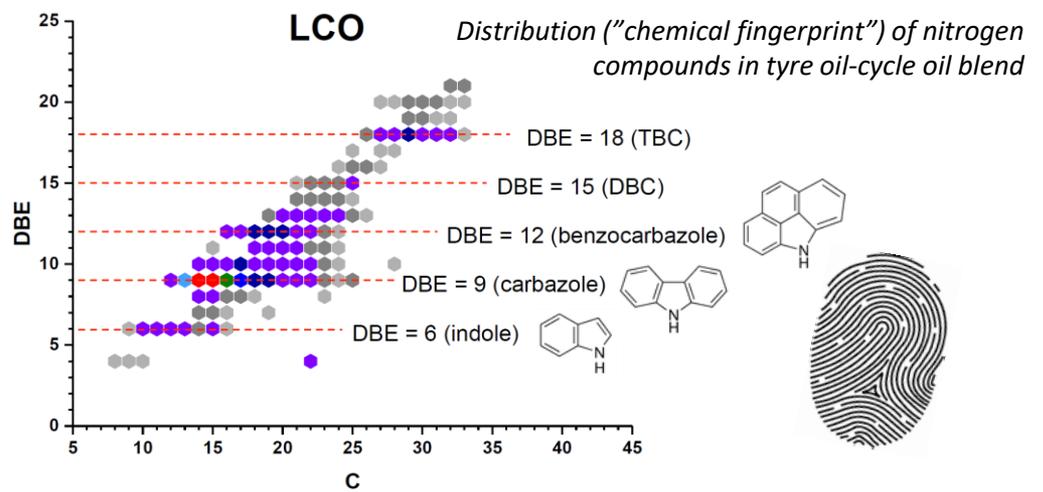
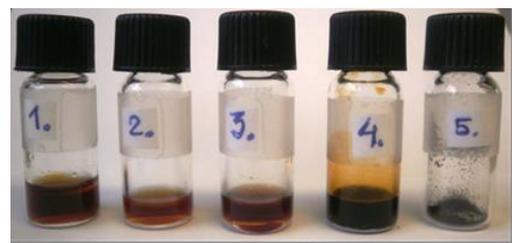
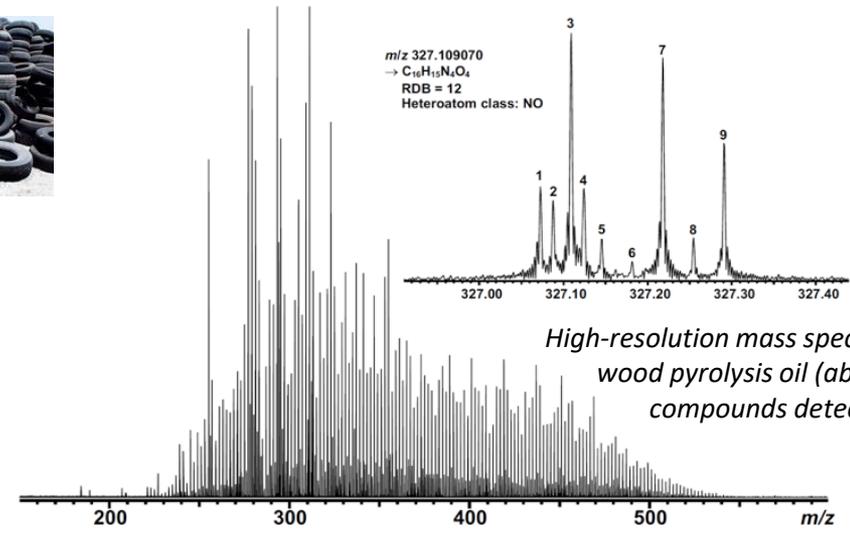
- Mass range: m/z 70–15.000
- Resolution:
 - Up to 7 million @ m/z 500 with narrowband detection
 - > 1 million @ m/z 500 with broadband detection (m/z 150-3000)
- Mass error (RMS)
 - < 1 ppm (external calibration)
 - < 0.1 ppm (internal calibration)
- Sensitivity
 - nM-level with direct infusion
 - aM-level with LC (a few ng's injected into column)







UNIVERSITY OF
EASTERN FINLAND





Contacts and further information

- General enquiries, structural biology & biological chemistry
 - Prof. Janne Jänis (janne.janis@uef.fi)
 - Prof. Juha Rouvinen (juha.rouvinen@uef.fi)
- General enquiries, petroleomics & biofuels, complex mixtures
 - Prof. Janne Jänis (janne.janis@uef.fi)
- Instruments, sample delivery
 - Dr. Mikko Laitaoja (mikko.laitaoja@uef.fi)
 - Dr. Marko Mäkinen (marko.makinen@uef.fi)



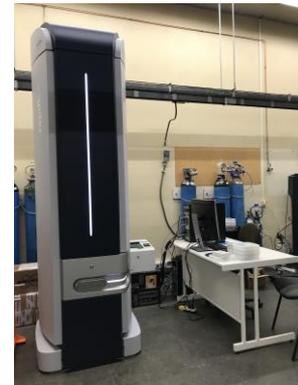
Mass Spectrometry Laboratory



University of Liege

Instruments and facilities

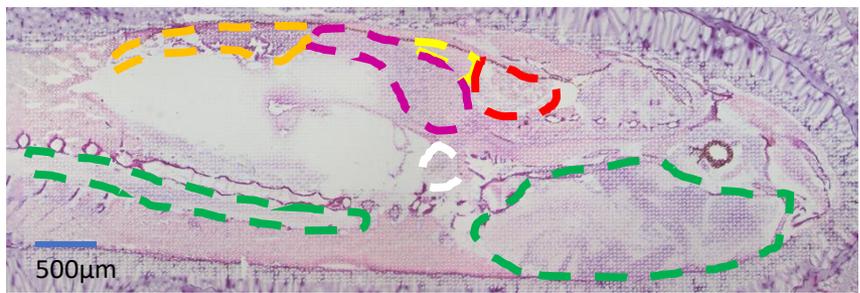
- 9.4T Bruker Solarix instrument
- 7T Thermo LTQFT coupled with CE
- Accompanying instruments
 - TIMS TOF
 - Rapiflex
 - Synapt
 - Q exactives
 - Triple Quadrupoles
- Full proteomics facility including wet lab and dedicated orbitraps
- Microscopy and laser microdissection
- FTIR and Raman microscopy



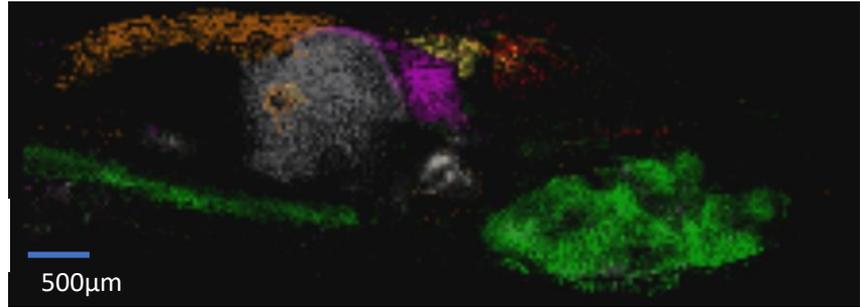
Examples of collaborative projects

- **Eurlipids**

Building on the Euregio' s knowledge and expertise in the field of lipid-technologies, the projects aims at establishing an excellence platform for lipid-based research and technological solutions ("Lipid Valley").



histological staining of the slice used for MSI.

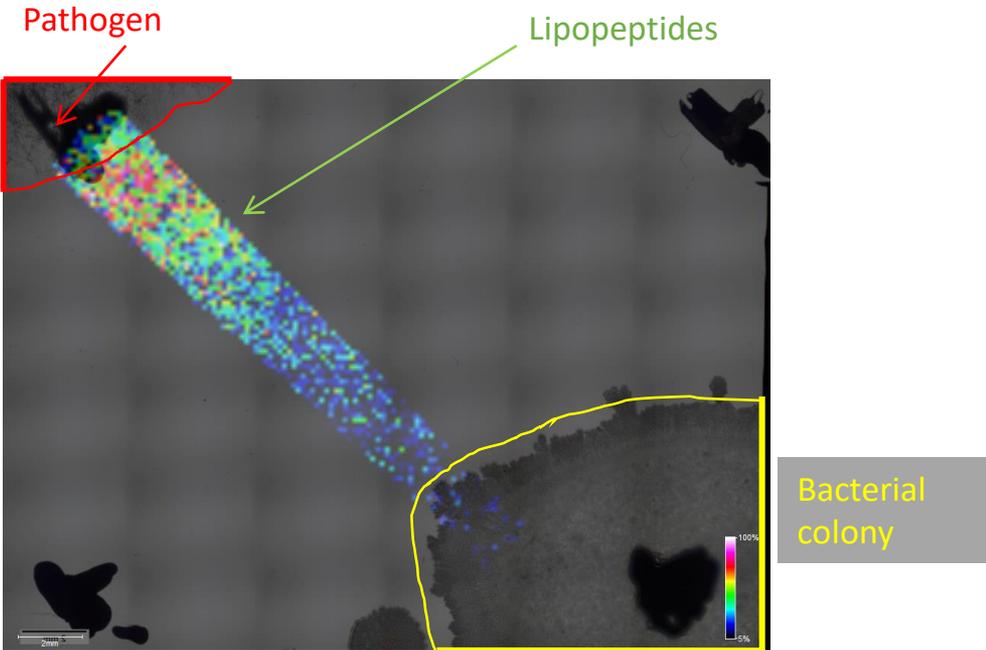


organ-specific *m/z* localizations selected with a 0.001% mass range. 549.2546 (gall bladder - uncertain); 571.4811 (intestine); 587.562 (kidney); 601.0739 (liver); 732,9773 (heart); 789.40617; 880.4465 (intestinal bulb).

Examples of collaborative projects

Rhizoclip

Ecological roles of cyclic lipopeptides from plant-beneficiary rhizobacteria: A chemical-biology approach to decipher primary functions of secondary metabolites.



Sample directly grown on agar support



FTICR MS Instruments :

- Dual source Bruker APEX FTMS 7 T with harmonized cell (ParaCell™)
- Thermo LTQ FT 7T with ESI source and HPLC system
- Bruker Solarix XR (expecting by the end of the year)

Staff :

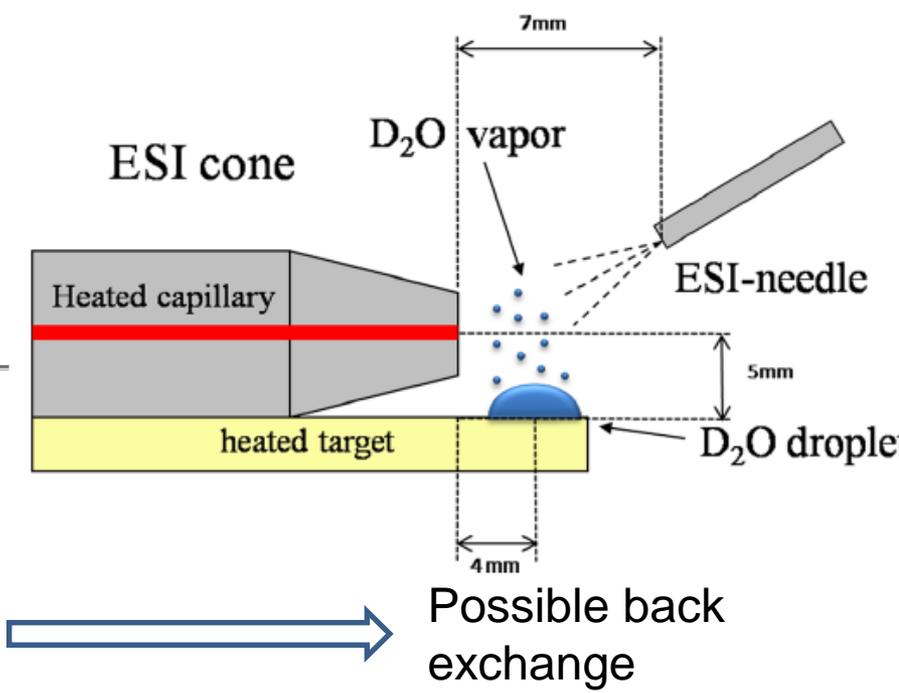
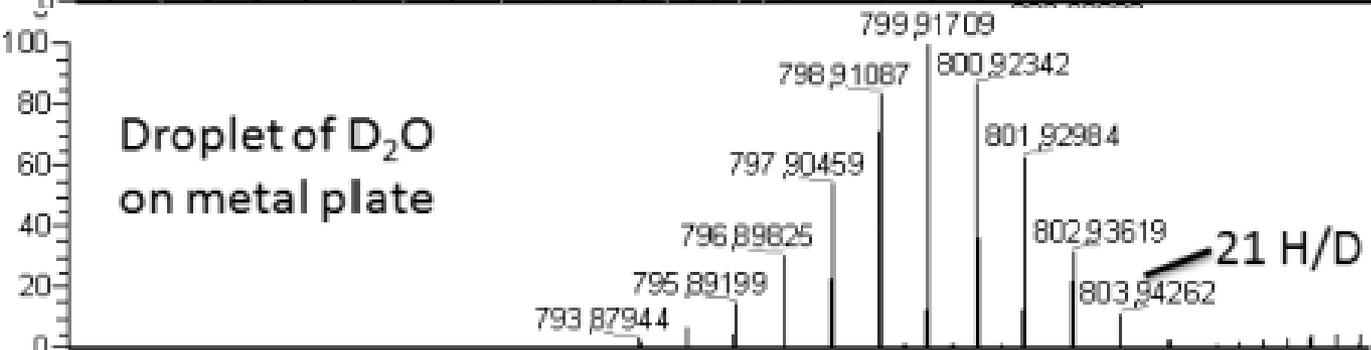
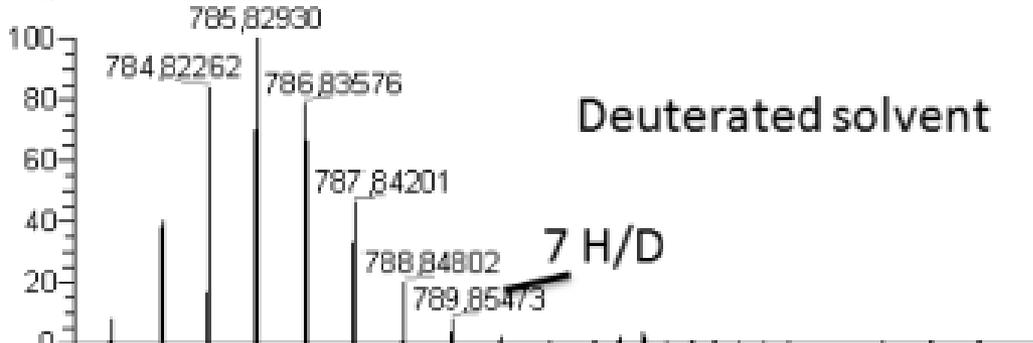
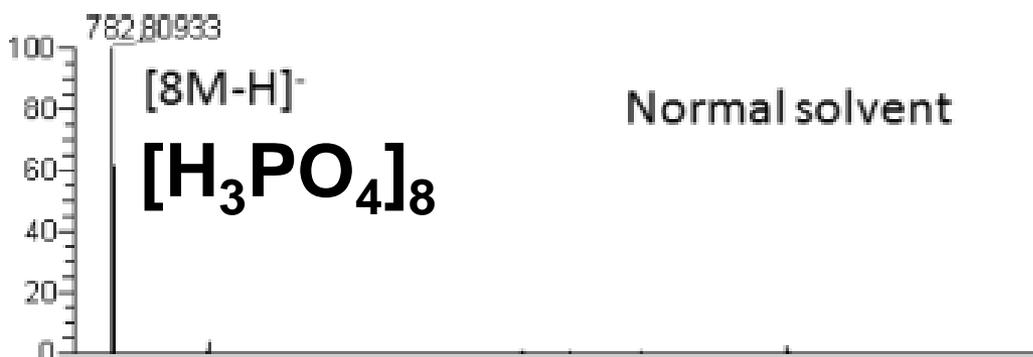
- Scientific PI : E. Nikolaev
- Associated staff : A. Zhrebker, O. Kharybin
- And all our team to assist

Capabilities:

- 500k RP in broadband mode (routinely)
- >2M RP in narrowband mode
- typically 0.1-0.4 ppm error

Research:

- Proteomics, metabolomics including dry blood spot (DBS)
- Isotopic fine structure of unknown compounds (e.g. new antibiotics)
- Petroleum and oils
- Natural organic matter (soil, coal, aquatic, permafrost etc...)
- Isotopic labeling including
 - H/D exchange (solution and in-source)
 - $^{18}\text{O}/^{16}\text{O}$ exchange
 - Selective chemical modification (deuteromethylation, deuteration etc...)



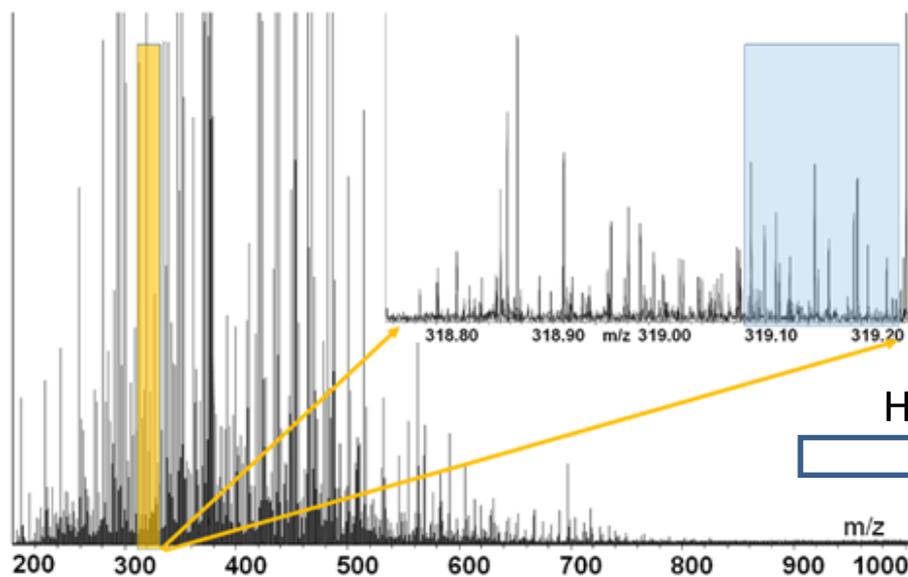
Kostyukevich et al.,
Anal Chem., 2013



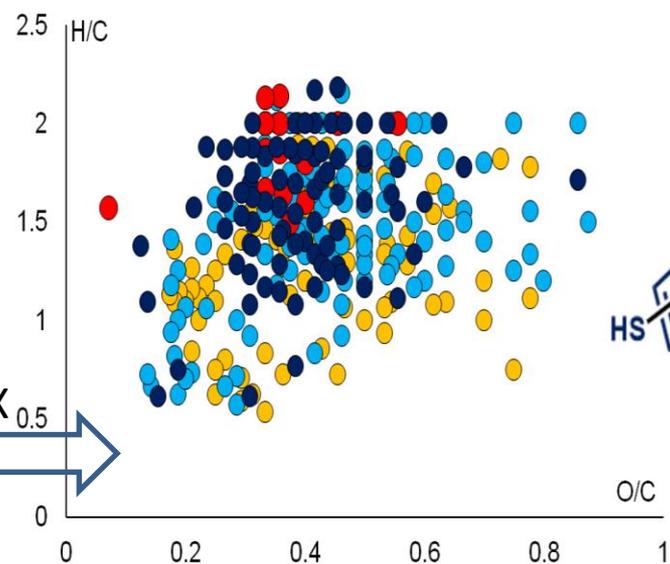
Extraction



Murchison OM



HDX

Speciation of heteroatoms chemistry



Ciências
ULisboa

FT-ICR and Structural Mass Spectrometry Laboratory

Instruments :

- Bruker Solarix XR FT-ICR 7 T (upgrade from Apex 2018)
- High mass Qtof (Micromass – MSVision modified 2014)

Specificity :

- Chemical profiling of complex samples
- Top Down and Middle Down protein analysis
- Native mass spectrometry

Staff :

- Scientific PI : Carlos Cordeiro
- Associated staff : Marta Sousa Silva
- Technician : Ana Marques



Ciências
ULisboa

FT-ICR and Structural Mass Spectrometry Laboratory



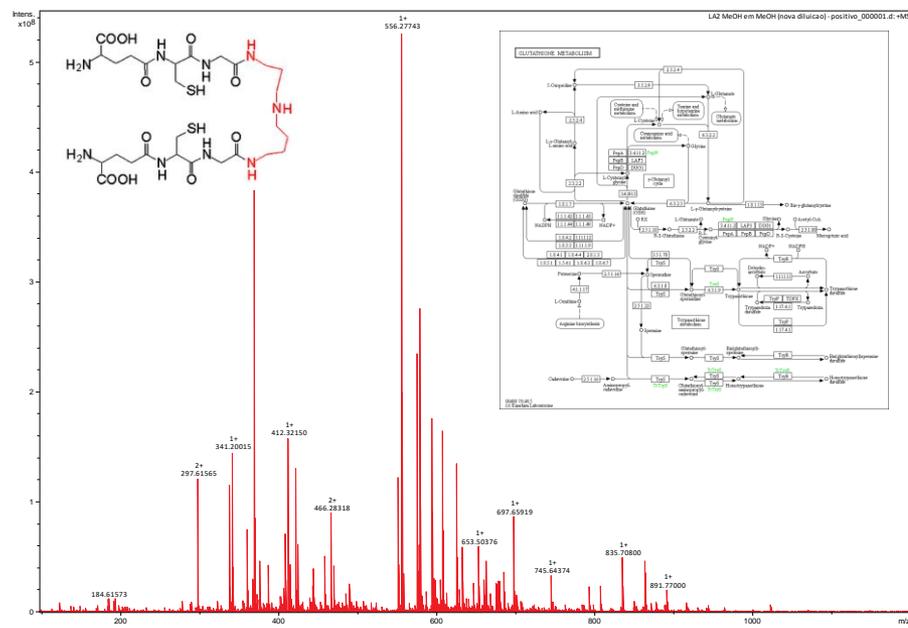
- Sample preparation (protein production, mutagenesis, native MS)
- Forensics (explosives, drugs, fingerprints, other samples...)
- Structural protein characterization (PTMs, native MS, CD)



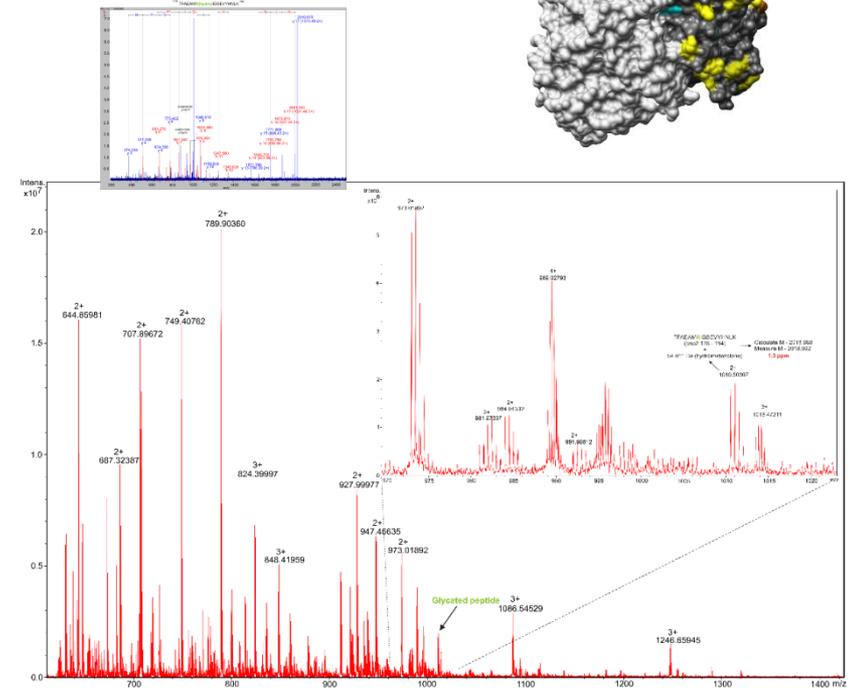
**Ciências
 ULisboa**

FT-ICR and Structural Mass Spectrometry Laboratory

Trypanosomatid metabolomics



Protein glycation





EU FT-ICR MS

EFTMS 2020

Lisbon

Grant Agreement (GA) No: 731077
IMSC, Florence, EU_FT-ICR_MS Workshop

EFTMS 2020 Lisboa





14th EFTMS

Proposed scientific program

14th EFTMS Workshop

- **Topics:**

- Fundamentals of FTMS
- FT-ICR-MS
- Orbitrap
- 2D FT-ICR
- Proteomics
- Native MS
- Metabolomics

- **Confirmed speakers:**

- Alan Marshal
- Christian Rolando
- Eugeny Nikolaev
- Peter O'Connor
- Roman Zubarev
- Alexander Makarov
- Jonathan Amster
- Philippe Schmitt-Kopplin



EU FT-ICR MS

How to apply?

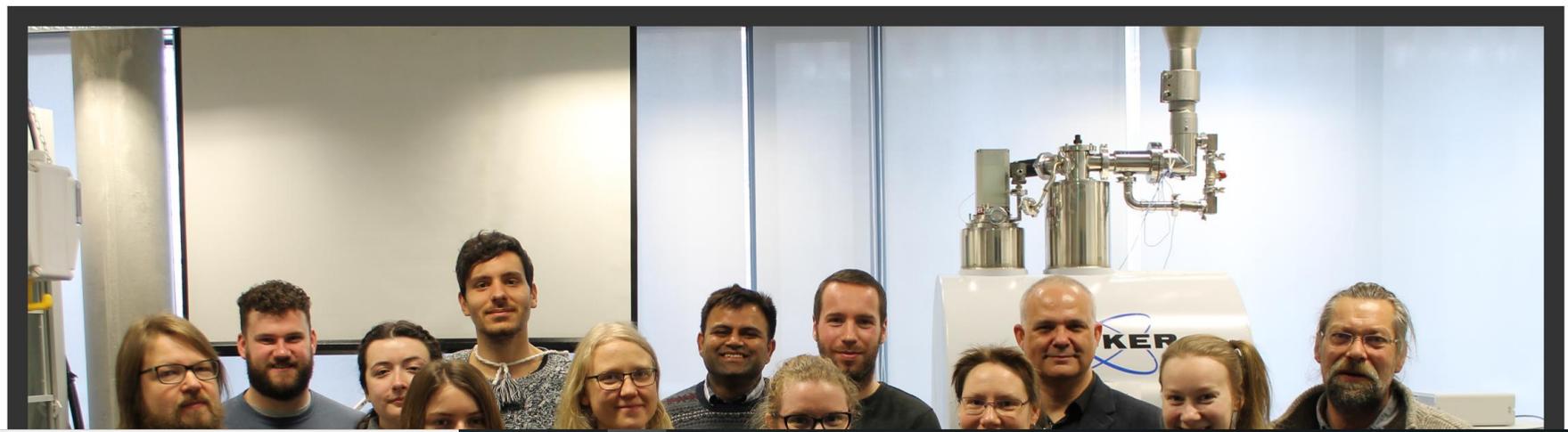


- Project
- Partners
- TNA Centers
- Workshops
- News
- Figures
- Events
- Documents
- Contact us



EU_FT-ICR_MS

European Network of Fourier-Transform Ion-Cyclotron-Resonance Mass Spectrometry Centers



IMSC, Florence, EU_FT-ICR_MS Workshop



2018-07-16

THE UPPCON2018 MEETING

The Uppcon2018 meeting is being held in Leeds on 16-18 July. It is a tandem mass spectrometry conference focused on advanced tandem mass spectrometry techniques such as ExD and UVPD.

for more informations, please check the website : <https://kuhmassy.wixsite.com/uppcon18/programme>

DOCUMENTS

Submission documents

Submission Procedures  download

Charter of Access for TransNational Access to the EU_FT-ICR_MS Research Infrastructure  download

Submission form  download

01 EU_FT-ICR_MS - 1st Short Course - 5-7 March 2018 - Rostock

Rostock_March2018_FundamentalsFTICR  download



EU_FT-ICR_MS

European Network of Fourier-Transform Ion-Cyclotron-Resonance Mass Spectrometry Centers

EU_FTICR_MS Project submission template

Text in red italics is an indication of the expected content. This can be deleted from the final form submission. Mandatory sections (1-3) are indicated with a red star. The mandatory section is expected to fit within one page.

Project PI	
Project Acronym	

1. Scientific context of the project*

Indicate the scientific context in which this work is to be carried out: What is the general background? What are the main current issues with the project? Why is FT-ICR mass spectrometry needed? If previous experiments were performed by mass spectrometry and show the need for FT-ICR measurement, please include these results in the "5. Previous results" section.

2. Samples and experiments*

Describe the experimental methodology to be carried out and the samples that are intended to be used for the experimental session. What are the samples? How many samples? Which experiments will be carried out? Are there specific needs for scientific / technical expertise? How will the data processing be performed (on site / at user's site)? This should justify the requested experimental and processing times. If specific additional equipment is needed, specify here the nature of these equipment and indicate if they are (a) to be provided by the hosting site and listed on the website as "peripheral equipment" or (b) to be provided by the User.

Specific sample handling and ethical issues with the samples should be mentioned in section "6. Sample handling" and section "7. Ethical issues".

3. Expected impact of the results*

Once the experiments are done, how will they be used in the context of the project described in section 1.

4. References

Include a list of references either to outside literature or to proposer's work. If needed, a pre-print or submitted manuscript can also be attached to the submission as an additional file, but please mention it in this section.

5. Previous results

Include previous results if available. If mass spectrometry experiments were already performed on the same samples (or similar ones), please include here all the experimental details (ionization source, solvents, source conditions, chromatographic separation) as well as some (or all) of the data. If previous experiments were obtained in the course of TNA, please include an experimental report of the previous TNA access session here. This section can be included as an additional document in the submission system, but please mention the file name in this section "Data submitted in file XXXXXX submitted with the current proposal."

6. Sample information

Include all information that can be needed by the site: sample safety issues, sample handling procedure, samples storing and disposal procedures, sample transportation requirements... By default, if not indicated at this stage, the sites will not be able to provide any assistance in handling / storing / disposing of the samples.

Also include solvents / chromatography conditions that the site will be expected to provide to the user. If specific consumables are needed, please list them here also and indicate if the user intends to provide them upon his visits.

See Charter of Access for TranNational Access Sections 6.f. and 6.g. of the for details concerning samples and consumables and Sections 7.a. and 7.b. for sample safety issues.

7. Ethical issues

Are there any ethical issues associated with this work (use of animal/human tissues or extracts, ...) as required in Charter of Access for TranNational Access Sections 7.c.

8. Data embargo period and intellectual property

By default these are set by the Charter of Access for TranNational Access Sections 6.e. (which defaults to an 18 months embargo period) and the consortium Data Management Plan. If a derogatory regime is foreseen please mention here the motivations and changes from the general regime.

9. Possible conflicts of interest

If a conflict of interest is possible with members of the evaluation panel, please indicate the names of the members you do not want to be evaluated by.



Submit project

Previous section

Next section >

General project information

Please fill each section, click on the 'Next section' button to go to the next page, and validate after 3rd section is filled by clicking the 'Submit' button. All * fields are required.

Submission documents:

- [Submission procedures](#)
- [Charter of Access for TransNational Access to the EU_FT-ICR_MS Research Infrastructure](#)
- [Submission form](#)

Project title

Project acronym (15 char. max.)

Project abstract (500 char. max.)

Rich text editor toolbar with icons for undo, redo, bold, italic, underline, strikethrough, subscript, superscript, link, unlink, list, indent, outdent, styles, format, and help. A 'Source' button is also present.



Project abstract (500 char. max.)

Project PI information

Title	<input type="text" value="Mrs"/>
First name	<input type="text"/>
Middle name or initials	<input type="text"/>
Last name	<input type="text"/>
Gender	<input type="text" value="Female"/>
Status of the project PI	<input type="text" value="Permanent staff"/>
E-mail address	<input type="text"/>
Confirm E-mail address	<input type="text"/>