

Research Project

SuperMaMa / Superconducting Mass Spectrometry and Molecule Analysis

Third-party funded project

Project title SuperMaMa / Superconducting Mass Spectrometry and Molecule Analysis

Principal Investigator(s) [Mayor, Marcel](#) ;

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Organisation / Research unit

Departement Chemie / Molecular Devices and Materials (Mayor)

Department

Project start 01.01.2020

Probable end 31.12.2022

Status Completed

SuperMaMa is an EU-FET OPEN Research & Innovation project working on new technologies for mass spectrometry and analysis of lowly charged and neutral high-mass proteins. It comprises the development of neutral and lowly-charged biomolecular beam generation and detection. To this end arrays of superconducting detectors for molecular ions and neutrals will be designed and installed in a converted mass spectrometer, and methods for charge reduction of biomolecular ions in high vacuum devised. The team includes three academic research groups (M. Arndt, U. Vienna; E. Charbon, EPFL; M. Mayor, U. Basel) and two industrial partner (Single Quantum, Delft; MS Vision, Almere). The contribution from UNIBAS is primarily concerned with the development of suitable tags for biomolecules to enable charge manipulation in the gas phase by photochemical methods.

Financed by

Commission of the European Union

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