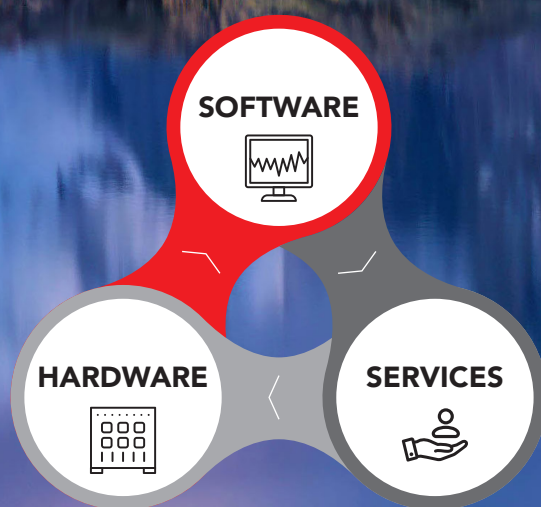


Spectro+swiss

Mass spectrometry data acquisition, processing, and analysis

EMPOWERING PRECISION UNLEASHING POTENTIAL

Celebrating 10 Years of Innovation



Spectroswiss Inc. | 245 First Street | Riverview II | Cambridge, MA 02142 | USA

Spectroswiss Sàrl | EPFL Innovation Park | 1015 Lausanne | Switzerland

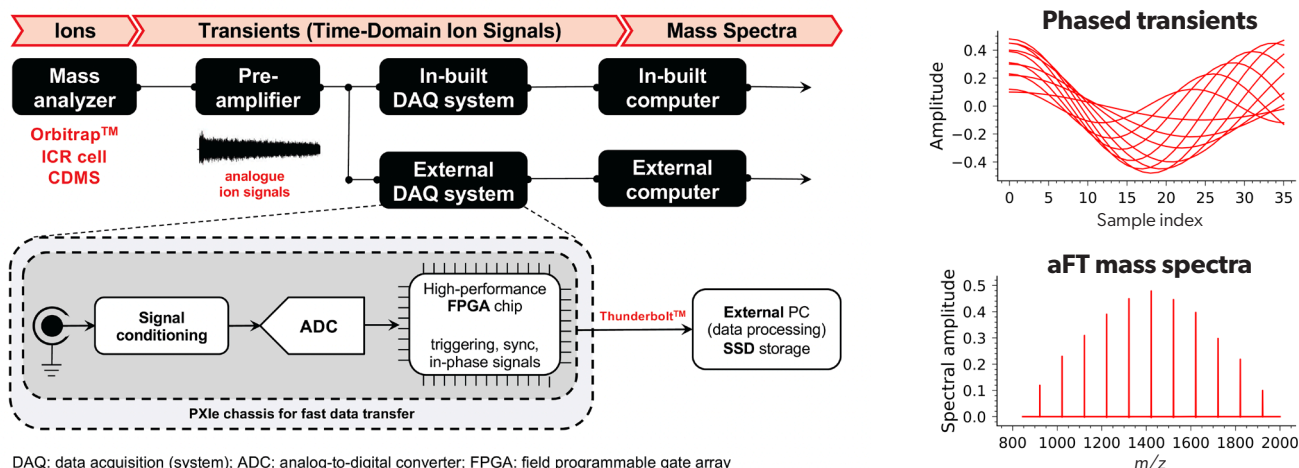
Spectrotech SAS | 132 rue Bossuet | 69006 Lyon | France

www.spectroswiss.ch

Hardware tools to access the unreduced data in FTMS

Time-domain data – **transients** – are key to FTMS performance, yet most instruments provide only processed, reduced mass spectra from fixed-length transients. Spectroswiss **FTMS Boosters** enable high-quality, flexible-length transient acquisition, unlocking the full potential of your instruments and data. Fully compatible with all FTMS platforms, FTMS Boosters and **Peak-by-Peak** software deliver a complete solution for advanced acquisition, processing, and deep insights across small and large molecule applications.

FTMS BOOSTER SYSTEMS ARCHITECTURE



ORBITRAP™ TRANSIENT ACQUISITION & PROCESSING

FTMS Booster X2T

- Easy add-on to any Orbitrap™
- Works in parallel with the in-built data acquisition electronics
- **Thunderbolt™** technology for remote control and rapid data transfer
- Unlocks **absorption mode FT (aFT)** mass spectra
- **Full transient detection** for enhanced sensitivity, (ultra-high) resolution, and duty cycle
- Patented technology to maximize sensitivity through simultaneous acquisition of low/high gain transients via proprietary PXI amplifier*
- Detection of ion signals across the full m/z range
- **User-defined first m/z value** to minimize data sizes and maximize processing speeds
- Acquires transients of any length, e.g., >25 s
- Takes care of the heavy data sets
- Calibrated signal amplitudes to provide complementary data (e.g. ion charges for CDMS applications, ion transmission tuning)
- Data visualization modes: single scan and transient averaging (micro-scans average, moving average, cumulative average)
- Acquisition of an arbitrary long signal (continuous data stream) for R&D set-ups
- Auxiliary real-time high-dynamic range digital filters for R&D set-ups
- Auxiliary DC-level adjustment of input signals for R&D set-ups
- Option: a stand-alone powerful **data analysis workstation**



PXI Amplifier

*Patent US 11,222,774 from 2022

FT-ICR MS TRANSIENT ACQUISITION & PROCESSING

FTMS Booster X3T

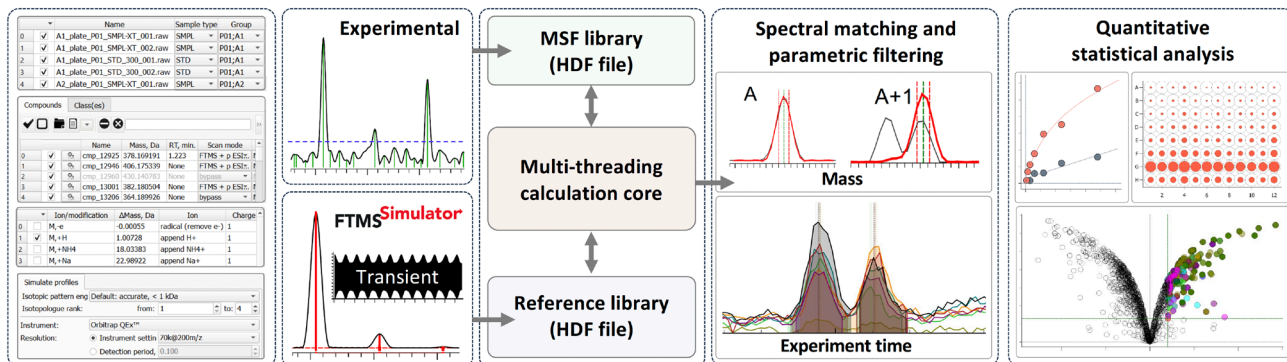
- Easy add-on to any FT-ICR MS, as well as any Orbitrap™ FTMS
- **Thunderbolt™** technology for remote control and rapid data transfer
- Acquisition of both excite and detect waveforms in FT-ICR MS
- All capabilities of the FTMS Booster X2T
- Two reserved slots for hardware extension modules
- Option: a stand-alone, powerful **data analysis workstation**



Software tools for data processing and analysis

Spectroswiss software solutions represent a transformative advance in MS data quality and processing performance. Engineered for multi-vendor compatibility and optimized for computational efficiency, our tools seamlessly handle datasets of any size and from any type of mass spectrometer. The software enables application-specific workflows through intuitive, step-by-step routines for streamlined data processing and in-depth analysis.

PEAK-BY-PEAK FRAMEWORK CONCEPT



PEAK-BY-PEAK APPLICATION-SPECIFIC WORKFLOWS

NEW

Real-time process monitoring
(GC-MS, EI-MS, etc.)

NEW

Breath analysis
(SESI-MS, etc.)

NEW

In-Browser FTMS Simulator
www.peakbypeak.com

Metabolomics, lipidomics, protein-ligand interactions

Quantitative bottom-up proteomics, glycoproteomics, PTMs analysis

Proteins & proteoforms: intact mass & quantitation

MS Imaging: MALDI & DESI

Proteoforms sequencing: top-down & middle-down analysis

Accurate simulations of FTMS transients, isotopic envelopes, & mass spectra

Complex mixture analysis
(direct infusion & LC-MS)

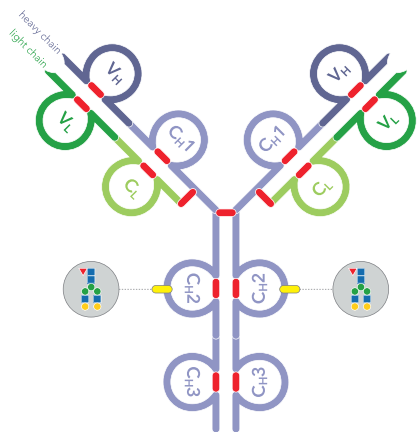
Charge detection mass spectrometry (CDMS)

Custom workflows to meet your specific requirements & needs!

Services to support your research & training

We offer a range of CRO services, consulting, and training courses. Utilizing our in-depth expertise and industry-leading know-how, and equipped with our proprietary advanced software and hardware tools, we look forward to supporting you in your routine and most challenging FTMS developments and applications.

CRO SERVICES FOR PROTEIN (ANTIBODIES) ANALYSIS



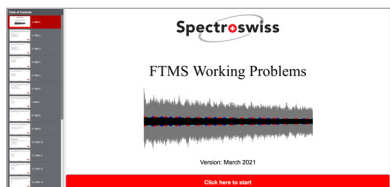
- Advanced and proprietary mass spectrometry solutions for mAb analysis, including complex multi-specific mAbs and ADCs/AOCs
- **[NEW]** Orbitrap-based Charge Detection Mass Spectrometry (CDMS), e.g., for the analysis of AAV samples
- **[NEW]** Released glycan analysis
- Superior quality data due to our proprietary methods and techniques for Orbitrap FTMS, powered by our custom biopharma software tools
- Integration of intact mass, middle-up, middle-down, top-down, and bottom-up mass spectrometry approaches
- Personalized follow-up and dedicated customer support

FTMS INSTRUMENT & WORKFLOW DIAGNOSTICS



- Identify the strengths and limitations of your FTMS platforms
- Understand the millisecond-timescale logistics of your experiments
- Explore ultra-high resolution capabilities
- Improve and expand your workflows
- Advance your most challenging applications

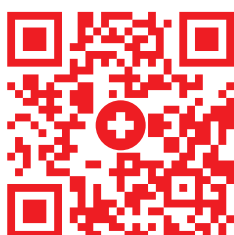
FTMS EDUCATION & TRAINING



- "FTMS Data Processing" and "FTMS Fundamentals" short courses
- Best practices and knowledge in FTMS, with an emphasis on Orbitrap™
- On-demand customer-specific on-line and on-site training programs
- Lectures, practical workshops, and hands-on problem solving
- For FTMS users in academic and industrial analytical laboratories
- Distributed over several days to match your schedule

COMPANY PROFILE

Spectroswiss is a 2014 spin-out from a Biomolecular Mass Spectrometry Laboratory at Ecole Polytechnique Fédérale de Lausanne (EPFL) in Switzerland. We provide software solutions for comprehensive data processing and data analysis in mass spectrometry, as well as advanced hardware for FTMS data acquisition. Capitalizing on our expertise in FTMS and proprietary advanced hardware and software solutions, we offer expert-level FTMS-related consulting, training, and CRO services. The company's headquarters are located in Lausanne, Switzerland. Our US office is in Cambridge, MA and our EU representative is Spectrotech SAS in Lyon, France. Welcome!



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