9.4 T wide bore NMR spectrometer

https://search.labfacilities.wur.nl/SearchDetail.aspx?deviceid=0101e5a2-7637-479a-a2cc-dbe5822d5d53

Brand

Bruker

Type

Avance III 400 MHz

Contact

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Organisation

Agrotechnology and Food Sciences

Department

Biophysics

Description

This system is used for analytical NMR, multi-dimensional NMR spectroscopy for molecular structure elucidation, and non-targeted screening of bio-fluids.

Technical Details

The system includes a inverse broadband probe fitted with a Z-axis gradient and with automatic tuning and matching. The inner coil is optimized for 1H and the outer coil can be tuned from 31P to 97Mo (and others in between). So X-frequencies are ranging from 162 to 27 MHz. The whole system is controlled by Bruker's Topspin software. A B-ACS 60 sample changer is present to be flexible in non-working hours.
Due to the presence of a gradient inverse probe 2D experiments like HSQC, HMQC, COSY and HMBC are easy to perform. Also 1H-experiments are easy due to the high sensitivity.

Complementary Techniques

This equipment is part of Wageningen Nuclear Magnetic Resonance Centre (WNMRC).
WNMRC is a rare and unique NMR facility. It offers user access to various NMR, MRI and ESR spectrometers (ranging from low to high magnetic fields, including imaging, solid state (MAS) and liquid state NMR), with applications ranging from molecular, cells and organisms suspensions to complex foods and intact plant level.
http://www.wageningenur.nl/en/Expertise-Services/Facilities/Wageningen-NMR-Centre.htm