

500 MHz NMR (cancer)

VNMRJ 4.2A manual

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0. Reservation of NMR with google calendar.

To make a reservation do it in 15 minutes increments.

Write name and extension number.

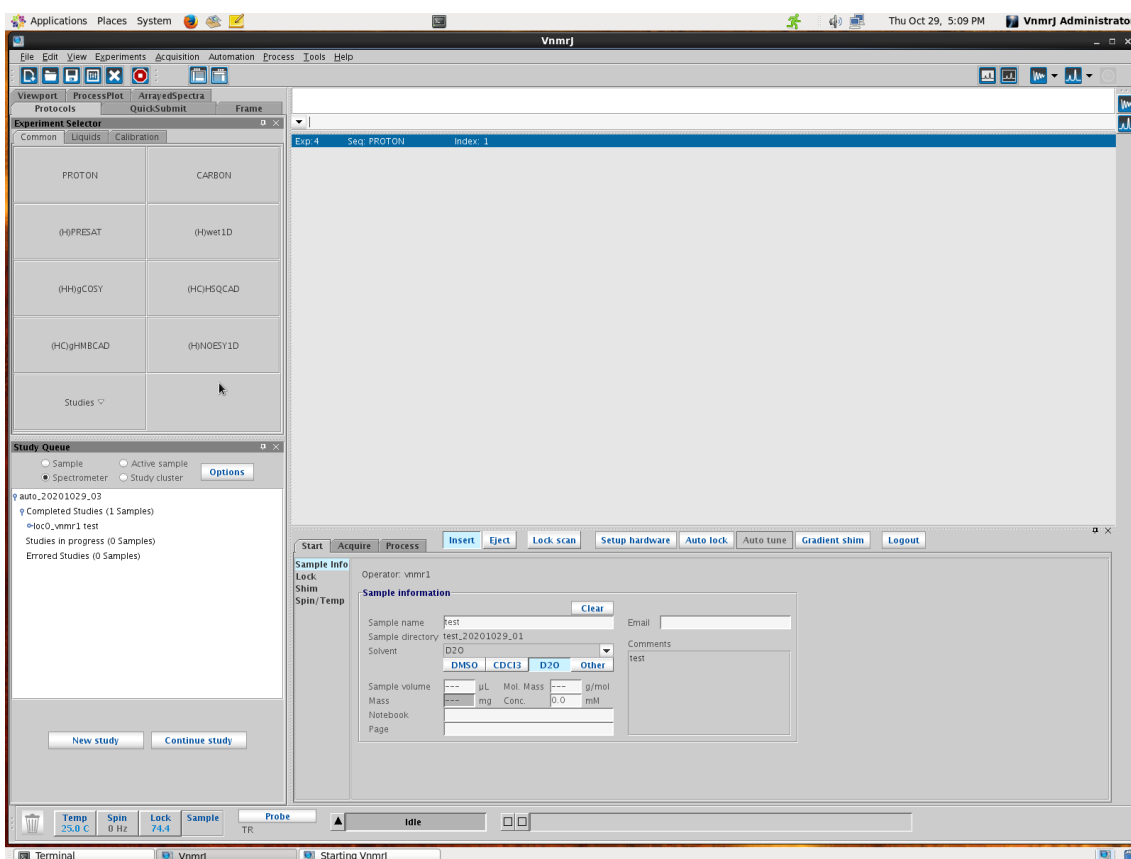
The use of daytime (9: 00-19: 00) except for weekend shall be booked up to 2 hours.

1. VNMRJ on Linux OS

Login time is the usage fee.

Be sure to logout after use.

Start VNMRJ from the VNMRJ icon on the desktop.



* If VNMRJ program does not start properly, please contact kumeta.

FAQ: If the menu is not displayed with message "variable 'dn' dose not defined" -> Quit program by [x] button, and after, remove a files "lock_n.primary" from 'home_directory/vnmrsys/'.

2. Temperature control

Default: 25 °C

If you change the temperature setting, return to the default value (25 °C) after use.

Start -> Spin/Temp -> Temperature setting -> [Regulate Temp]

Setting temperature is up to 65 °C from 10 °C.

(When setting below 20 °C or over 40°C, it is necessary to change the VT (cooler) Unit setting -> kumeta)

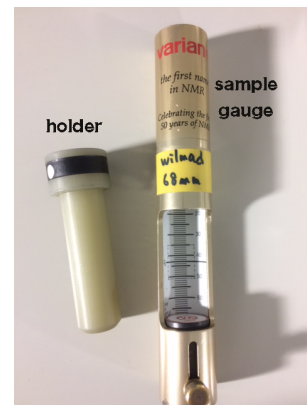
3. Sample holder, sample Insert / Eject

The sample volume should be at least 500 uL.

Fix the NMR tube (5 mm) to the sample holder.

Adjust the sample position with a sample gauge.

DO NOT RETURN the sample holder inside the NMR without NMR tube.

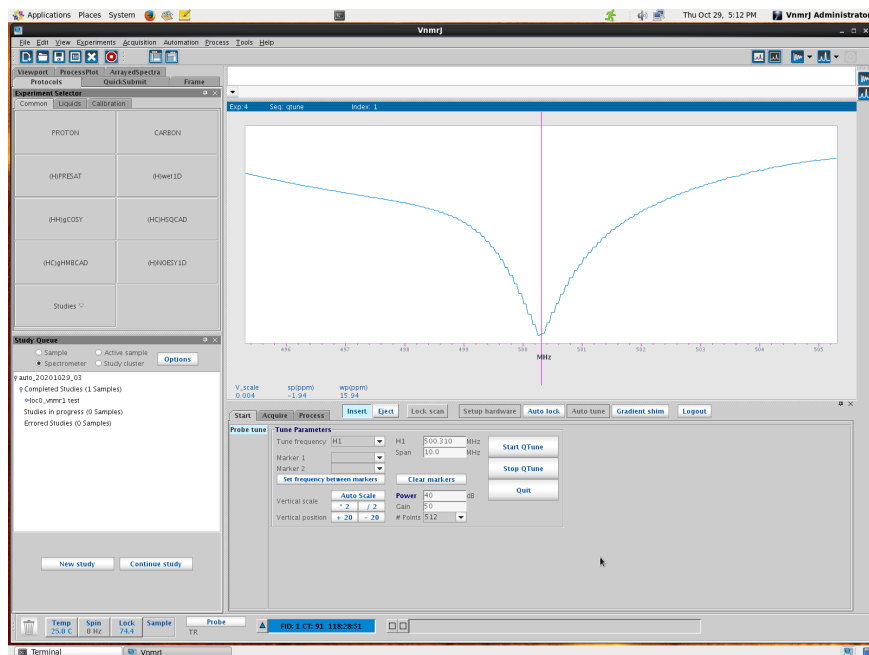


4. Tuning

4-1. VNMRJ menu.

[Tools] -> [Probe tuning] -> [Manual Probe tuning]

[Tune frequency] (1H or 13C) -> [Start Q Tune] -> [AutoScale]



4-2. Cabling for tuning.

Turn the display toward magnet.

See the attachment paper.

4-3. Tuning / Matching

-- Check ! -- atom name {PROTON} on lod body.

Tuning: Adjust dip (dent) position.

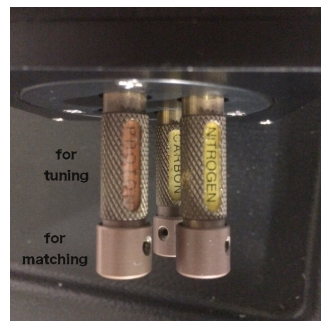
Matching: Dip sharpness.

4-4. End tuning

Restore the cabling.

Return the display.

[Stop QTune] -> [Quit]



5. Sample name and solvent system

Study Queue -> [new study]

Select the sample solvent system.

6. Select acquisition experiments / Modify the acquisition parameters

ex.) Common -> Proton

ex.) Common -> (HC)HSQCAD (<- Recommended with "AD")

7. Submit (Auto Z0, Autoshim)

8. NMR spectrum and FID data

File -> Save as.. ->

Autosave files -> [home_directory/vnmrsys/Automation/auto_...](#)

9. After use

Eject your sample.

Cover with gauze.

Write usage log in log note.

Logout.

10. F.A.Q.

10-1. The menu is not displayed with message "variable 'dn' dose not defined".

Quit program by [x] button, and after, remove a files "lock_n.primary" from 'home_directory/vnmrsys/'.