## Measure 171Yb without 2H decoupling, on LF1 channel of HPX or Royal probe.

# 1, Open probe Tool in order to check the power level of Deuterium

User: Owner:	Probe Tool Calibrate ADCs Manage User Accounts Instrument Preferences Scheduling Turn Maintenance Mode Ol	Status	Meth Acti Collect	ion: Idle		► pup	urrent tuning	information for
HA UU I	Firmware Update Shutdown Spectrometer	d 🗍 🗍 🖉 Inte	ractive Slot	Kind	Shared	Verified	Error	Owner
<ul> <li>1 = test 3</li> </ul>	Chloroform-D		1 📣	Liquids	• 0	1		johnny
			- 10	1				
( <sup>3</sup> <sup>2</sup> <sup>3</sup> <sup>2</sup> <sup>3</sup> <sup>2</sup> <sup>2</sup> <sup>2</sup>	O Current			<u> </u>	ſ		date Job(s)	
3 2 <b>D</b> 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	21) (20) (20) (20) (20) (20) (20) (20) (21) (				E	nter a title for	54400000000000000	
3 2 <b>1</b> 3 2 (4) (5) (5) (5) (7) (7) (7) (7) (7) (7) (7) (7	21 (2) (2) (2) (2) (2) (2) (2) (2)	]			B	nter a title for lew Job	the new job	
3 2 <b>1</b> 3 2 5 <b>1</b> 3 2 5 <b>1</b> 3 2 5 <b>1</b> 3 2 2 <b>1</b> 3 2 3 2 3 2 3 2 3 2 3 2 3 2 3 2	21 20 29 19 19 10 17 Current O Defined O Pending Unavailable O Ferror O Verified Selected				B	nter a title for	the new job to the title:	

#### 2, Copy the power level of LF1 Deuterium

Calibrations	r –	y d Pairs Tuning Parameters Field Gra	dient
ſ	Coil	F1 Domain	Deuterium
90 Pulse	e (µs)	Square 10.0	J
Power Level	l (dB)	8.0 Copy	
		• • -	Shape Viewer

# 3, Paste the power level on 171Yb

Calibrations		ned Pairs Tuning	Parameters Field Grad		
(	Coil	LF1	Domain Y	tterbium171	
90 Puls	se (µs)	Square 1.0	Death		
Power Leve	el (dB)	8.0]	- Paste		
6		⊴ ♣ =		Shape	Viewer

Jobs         Queue	🅼 Monitor 🕕 Sta	itus	Collected: - Time: -		Reached	Lock State 'AUTOLOCK' ed Job 'New Job'	u. T
Open Jobs	Samplersing	le pulse	int	Slot	Kind	Preparation	Comment
Vew Job Oh 09m Single_pulse Oh 09m	tests			1	Liquids	TRUE	
	•						
	Header Instrument	Acquisition	e Diagram 🕎 Fa	vorites		2	Add Parameters
	x_domain	Ytterbium171					• 🔹 🐁 🐁 🔺
	x_offset	0[ppm]					
•	x_sweep	1[ppt]					
	x_points	16384					
	scans	1					
	x_prescans	0					
	mod_return	1					
	x_acq_time	0.23185[s]					
T	x_resolution	4.31314[Hz]					
Proton Carbon COSY DEPT							V
	👰 🗍 Deliver data a	utomatically					Submit Job
Receiver Gain: 50 OSpin: 1	4[Hz] 🔐 Loc	k: 2037	Temp: 25.1[dC]	Helium: 5	0[%]	Nitrogen: 75[%]	No Jobs

## 4, Open single\_pulse experiment and modify parameters.

Sample Name	Solvent		Kind	Preparation	Comment
test 3	Chloroform-D	Slot	Liquids	TRUE	
		0			Add Parameters
Header Instrume	nt Acquisition Pulse Diagram 🔮	Favorites			a Add Parameters
x angle	90[deg]	Puise			
x_90_width	y_acq 6[us]60[us] : 2[us]				
x_atn	8[dB]				
x_pulse	33.0[us]				
		- Pulse Delay			
relaxation_delay	15[s]				
repetition_time	15.23185[s]				
dante_presat	obs_	_dante_presatura	ition —		
	Header Instrume x_angle x_0_width x_atn x_pulse repetition_time	Header       Instrument       Acquisition       Pulse       Diagram         x_angle       90[deg]         x_so       width       y_acq 6(us)60(us) : 2(us)         x_atn       6[dB]         x_pulse       33.0(us)         relaxation_delay       15[s]         repetition_time       15.23185[s]	Header       Instrument       Acquisition       Pulse       Diagram       Particular         Pulse       90[deg]	Image Pulse Diagram Pulse Favorites         Pulse       Pulse         x_angle       90[deg]         x_sin       9(d8]         x_pulse       33.0[us]          Pulse Delay          15[s]         repetition_time       15.23185[s]	Header Instrument Acquisition Pulse Diagram Police       Favorites         Pulse

PW90 Calibration.	Change x90_width	Process:
Use single pulse_dec	Dimension =Y	Use [1D] first to phase before
set sweep	Listed = none	calculating pw90.
set offset	Linear= yes	[Transpose]
set x_angle =90	Set start and stop	Put diamond in middle
auto gain= none	relaxation = long 30seconds	[Expansion] [Linerised]
	Don't need [pre scan]	Fill in the probe file.
		obs attn. is the power level.