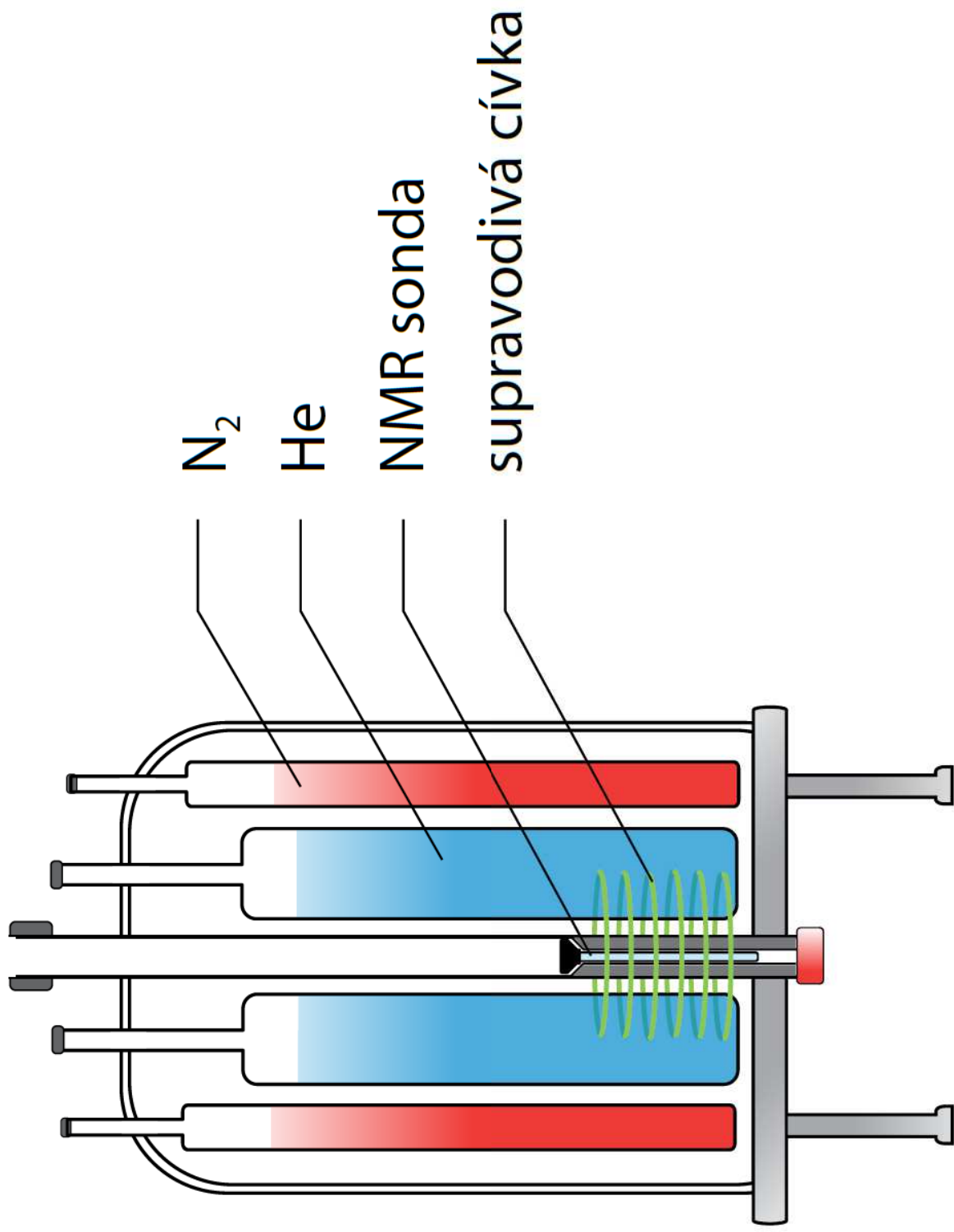

NMR Spektroskopie

Lekce 6: Praktické aspekty NMR spektroskopie



Martin Dračínský



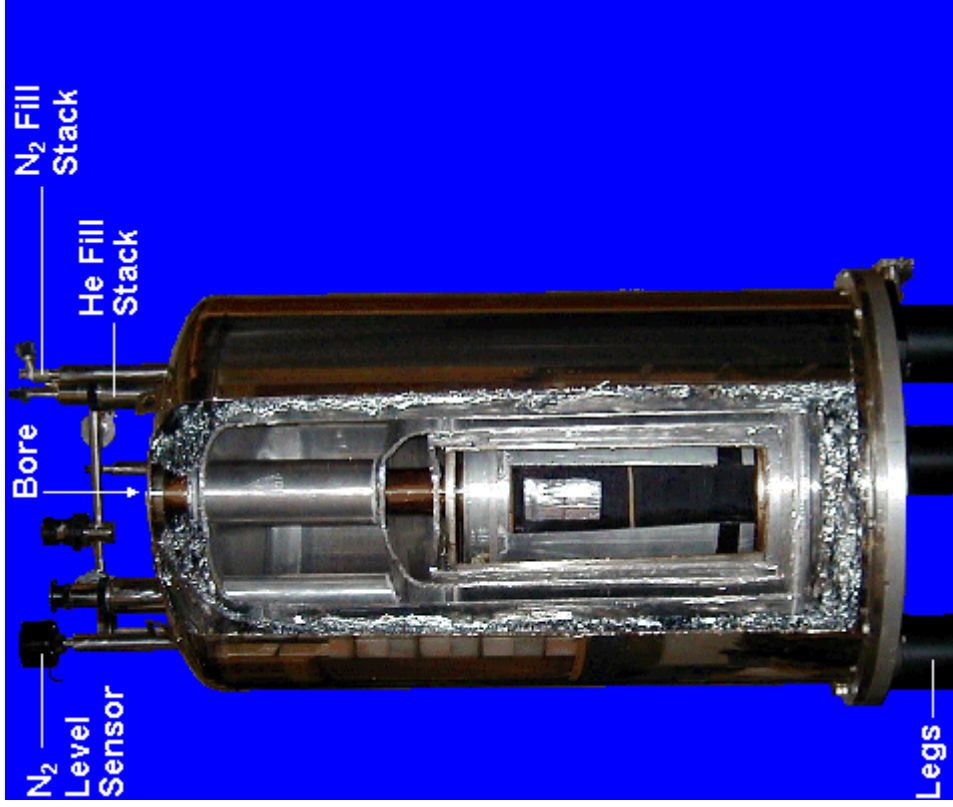
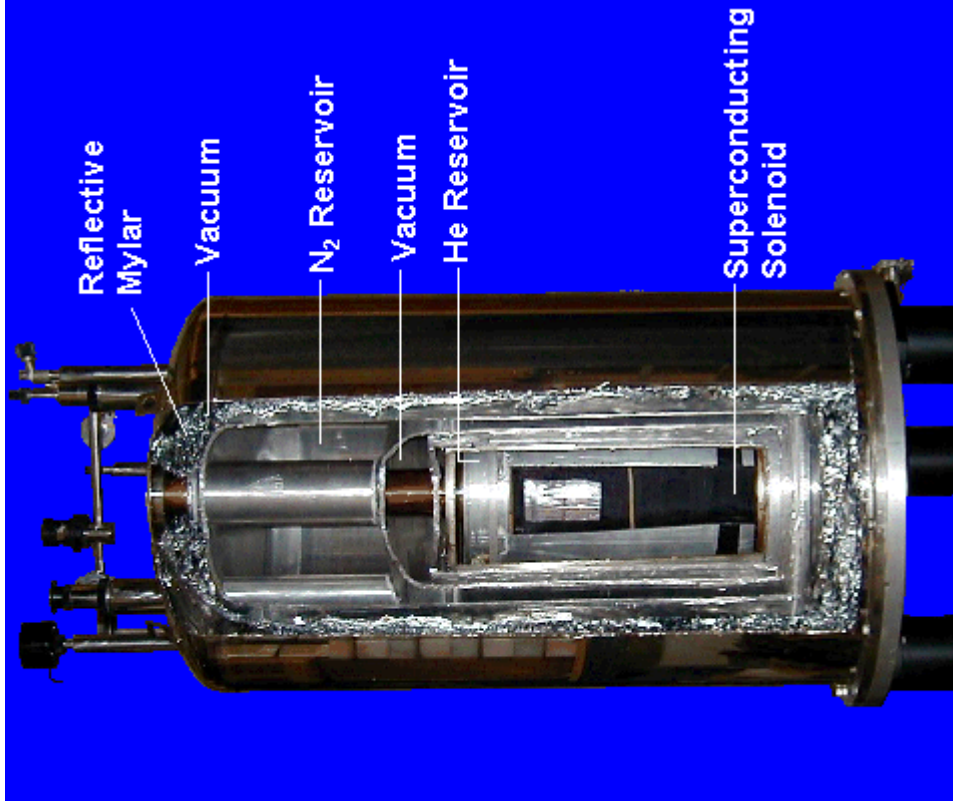
N₂

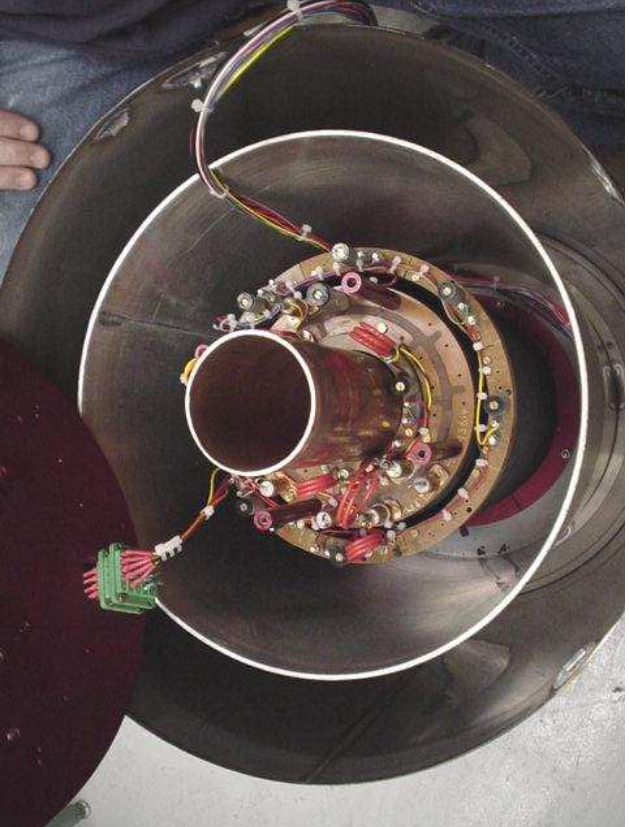
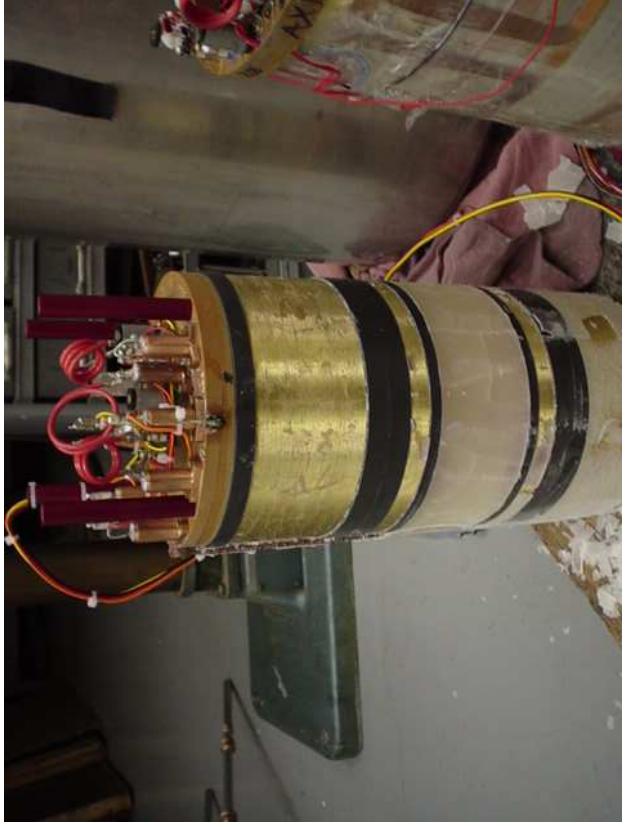
He

NMR sonda

supravodivá cívka







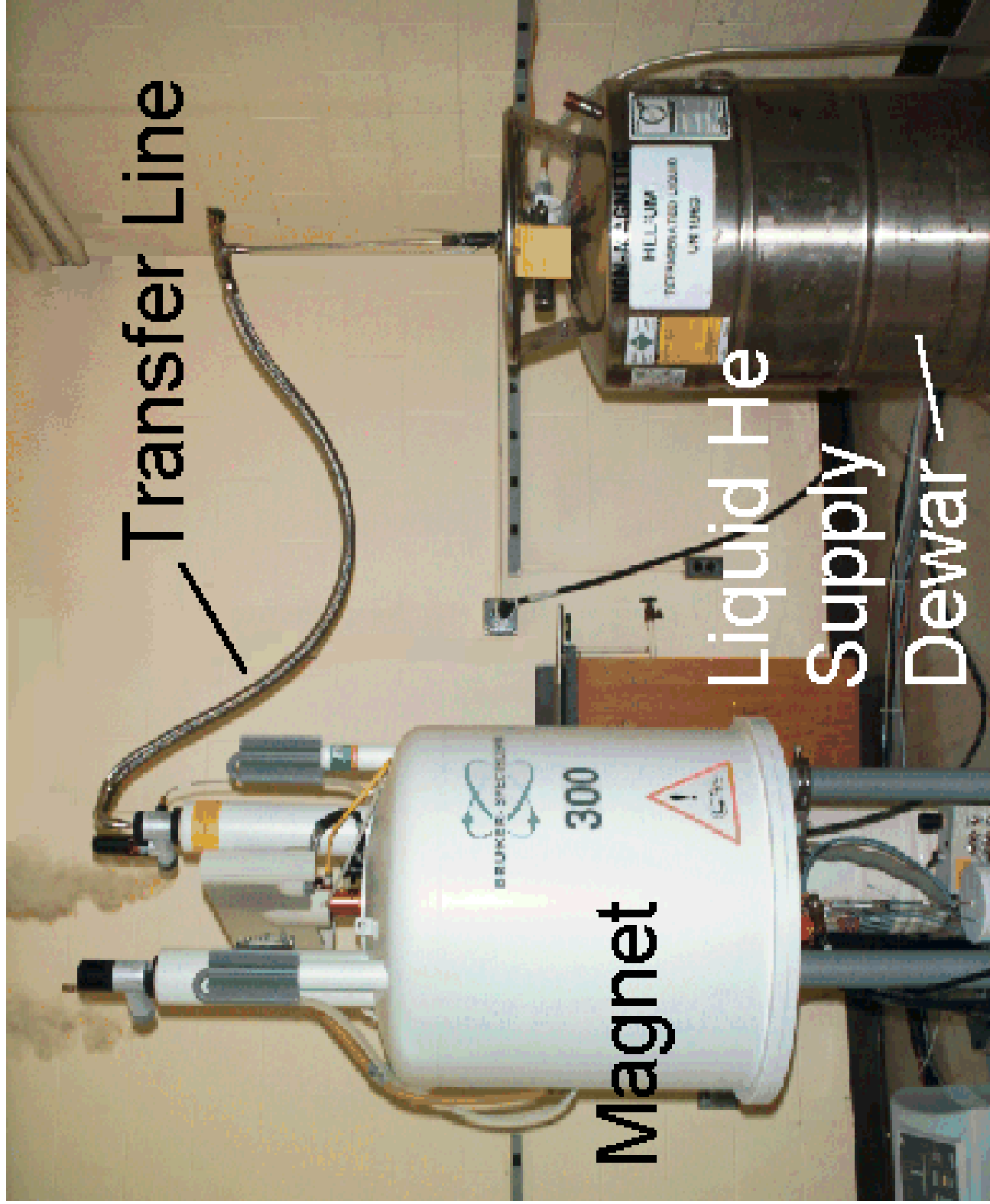
Transfer Line

Magnet

Liquid He

Supply

Dewar





NMR magnet

Měnič vzorků

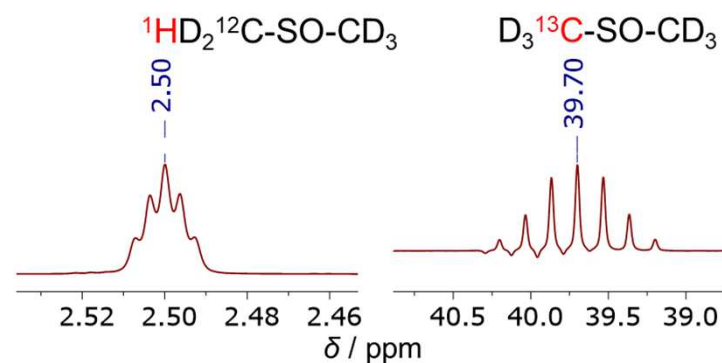
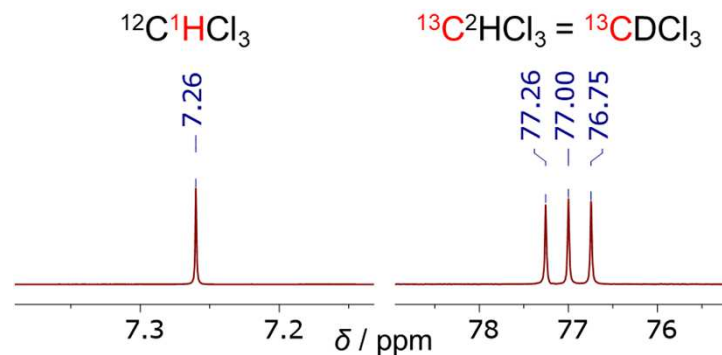
Kryosonda

Zařízení ke kryosondě

Konzole

NMR rozpouštědla

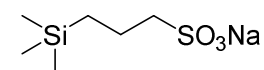
CDCl_3	7,27	77,0
$\text{DMSO-}d_6$	2,50	39,5
D_2O	~4,8	
90% H_2O + 10% D_2O	~4,8	
MeOD	3,31	49,0
C_6D_6	7,16	128,0



Standardy

interní – TMS, DSS, dioxan, $(\text{CH}_3)_3\text{COH}$

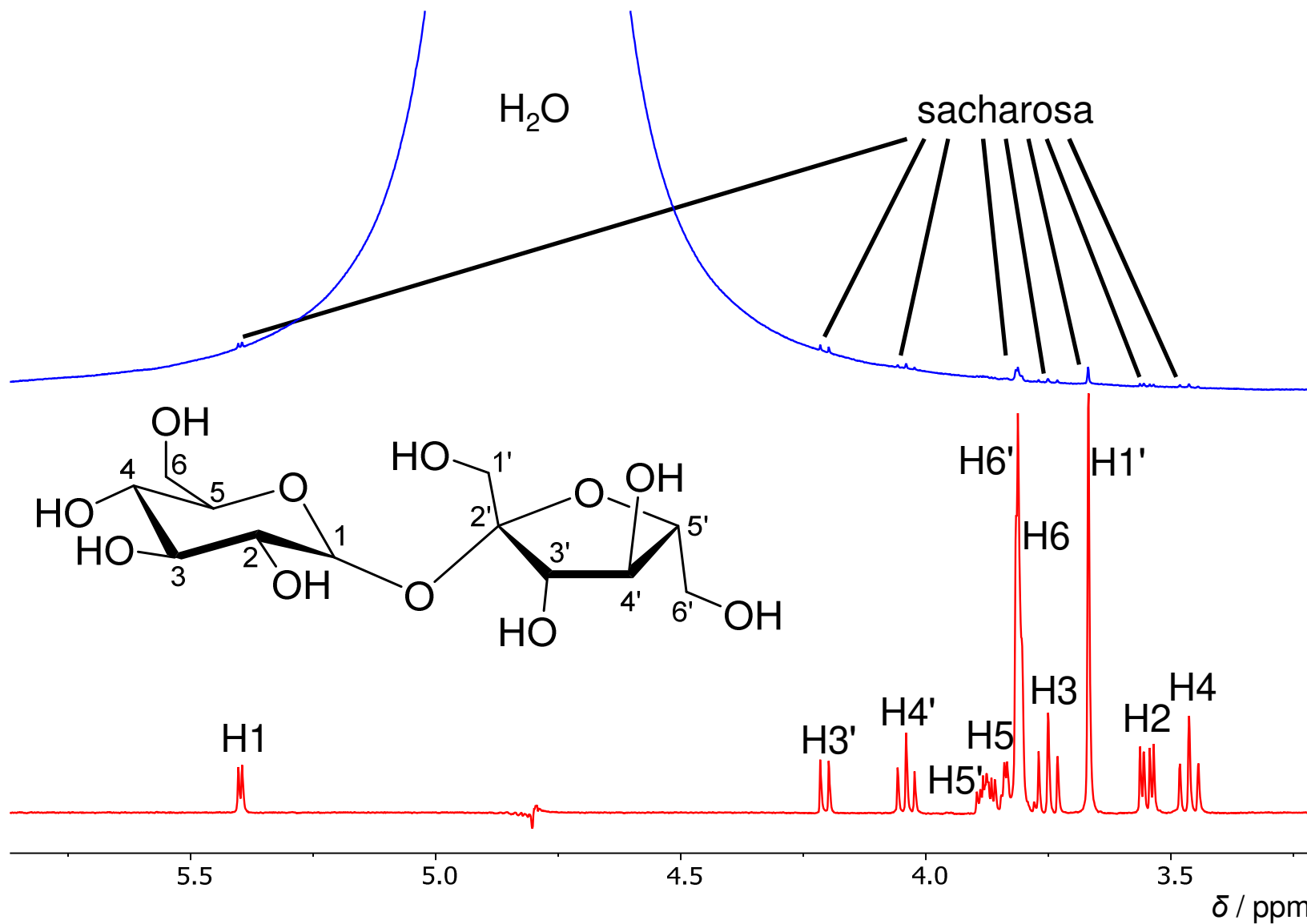
externí – v kapiláře



Měření teploty

CH_3OH 175 – 330 K

ethylenglykol 310 – 410 K





A

B

C

NMR měření

lock

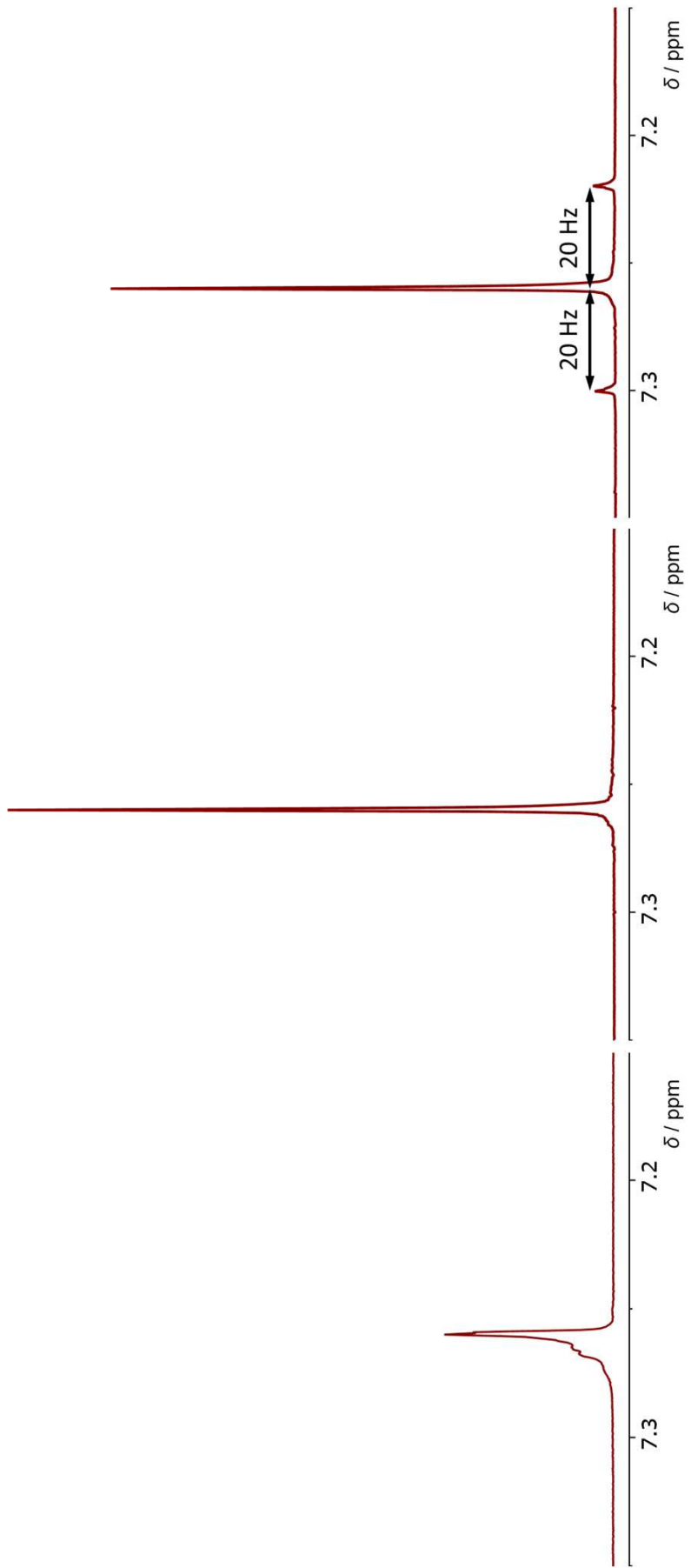
ladění rezonančního obvodu

ladění homogenity pole (shim)

rotace vzorku

akvizice

zpracování



Ladění homogenity pole

