
NMR Spektroskopie

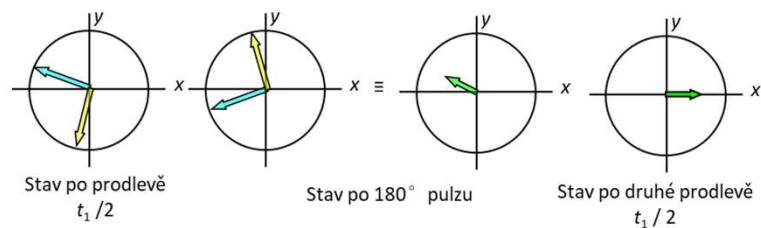
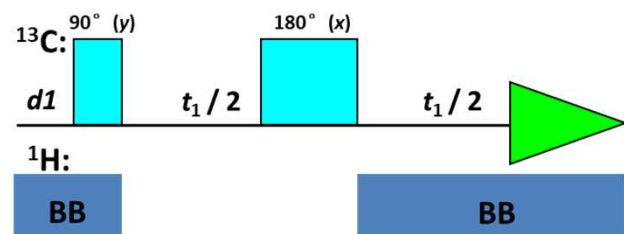
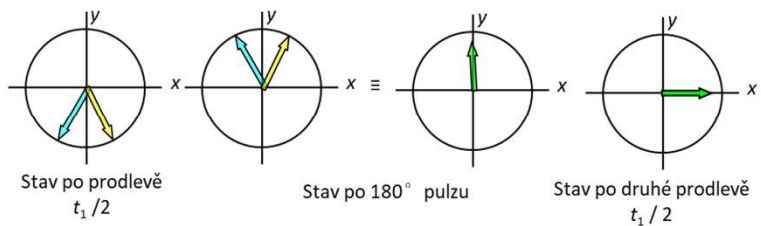
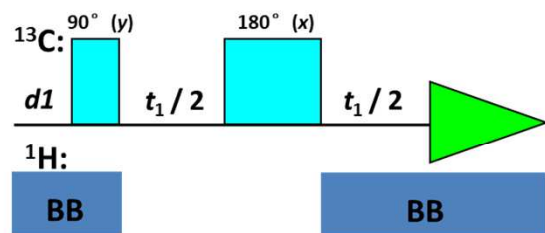
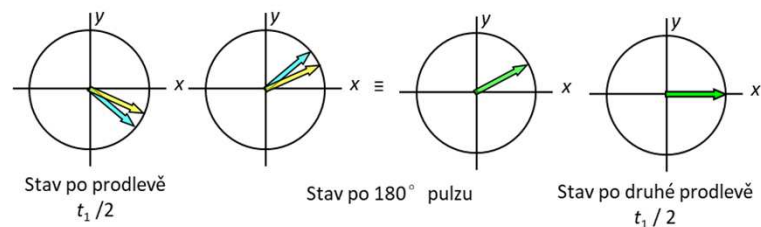
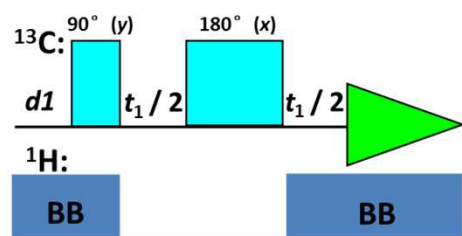
Lekce 8: 2D NMR spektroskopie



Martin Dračinský

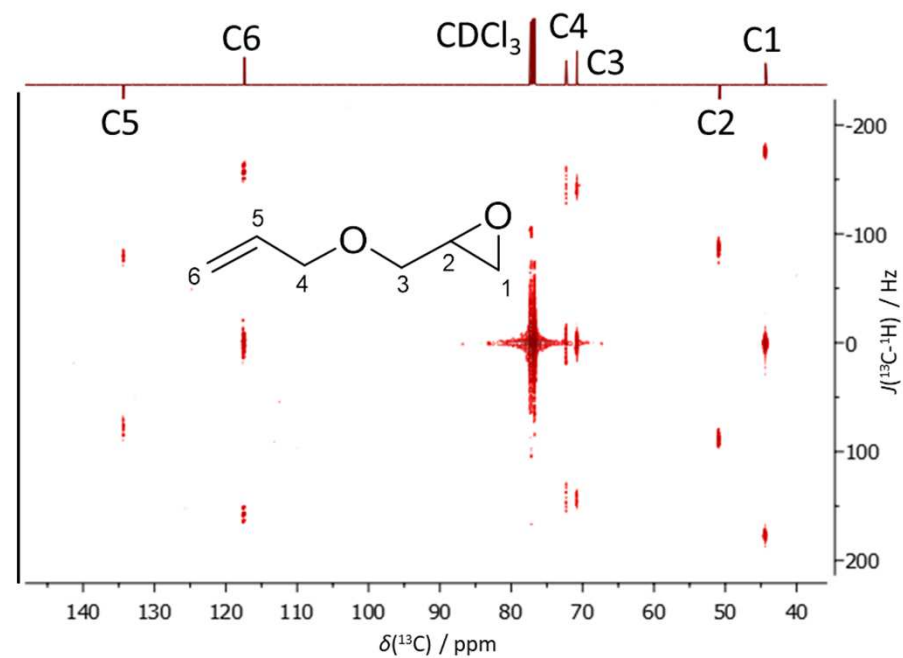
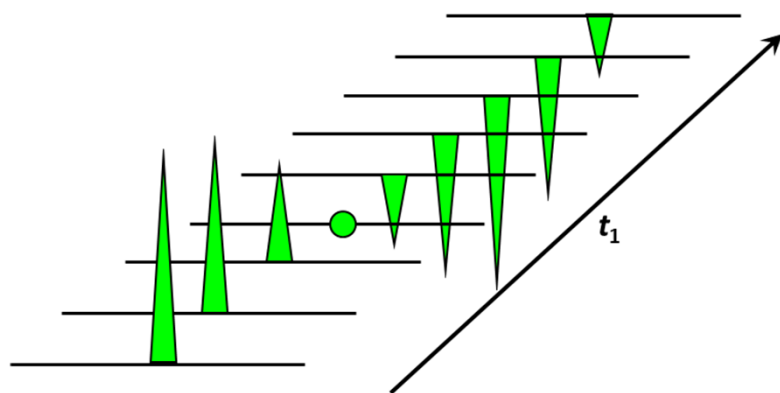
2D NMR experimenty

Heteronukleární J-rozlišené spektrum

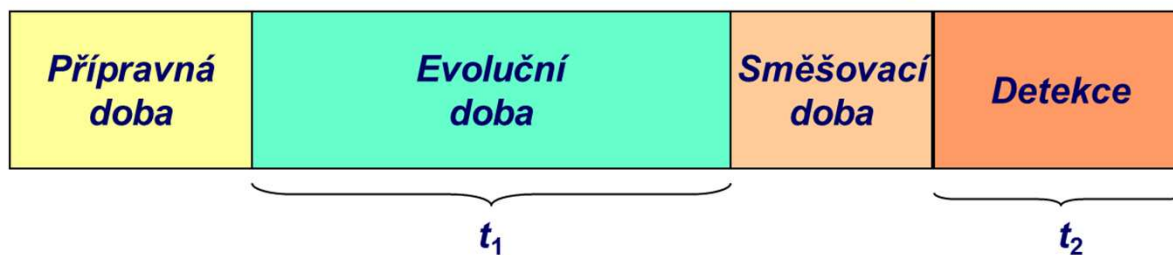
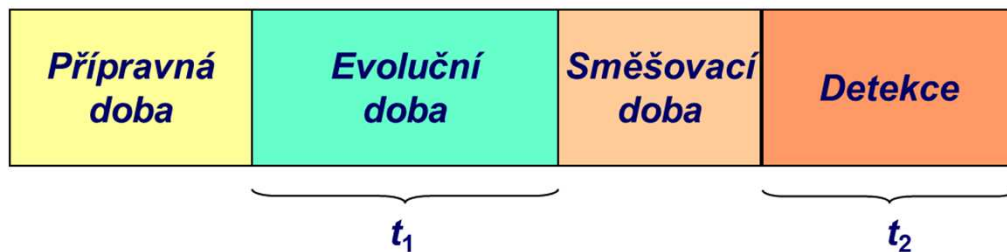
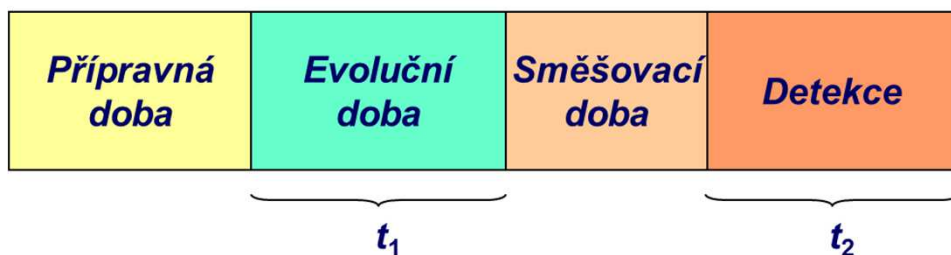
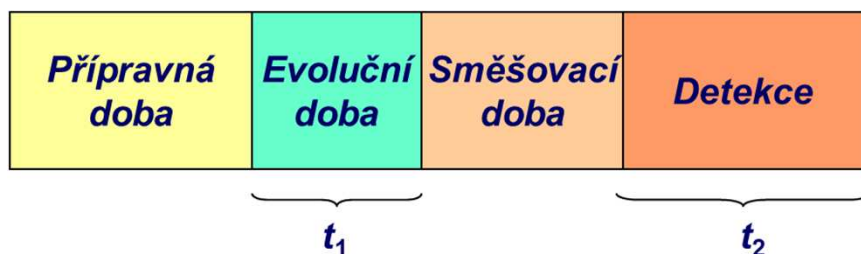


2D NMR experimenty

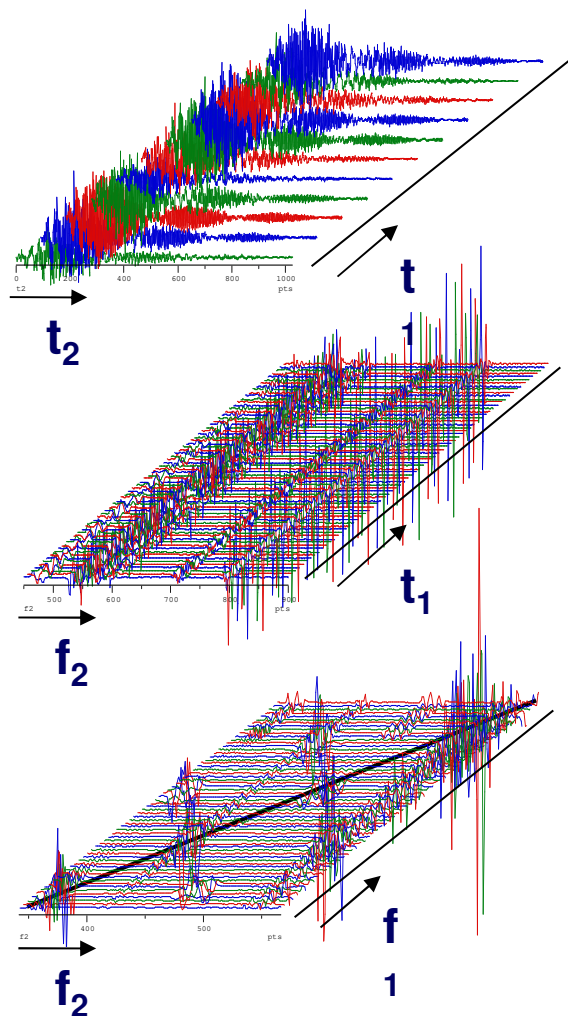
Heteronukleární J-rozlišené spektrum



2D NMR experimenty



2D NMR experiments



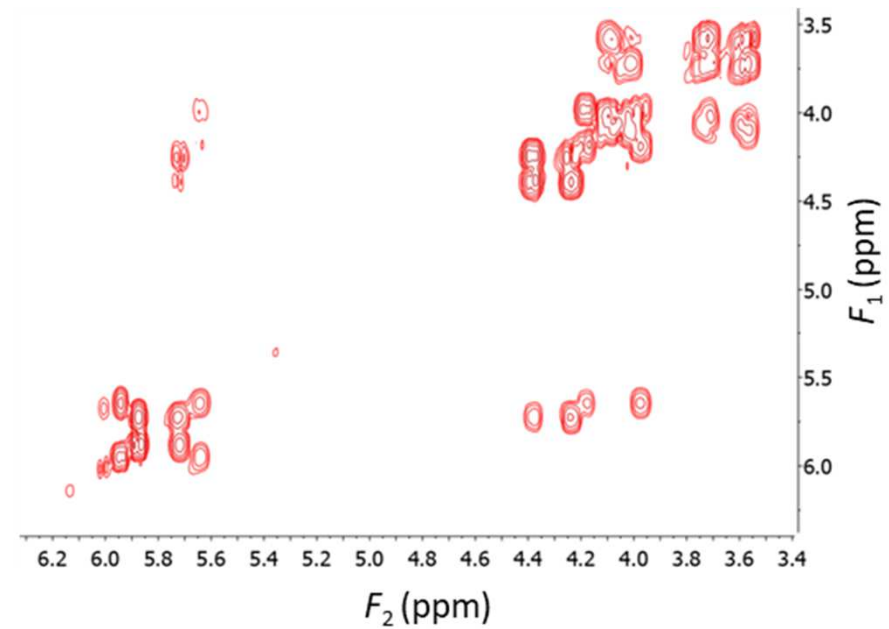
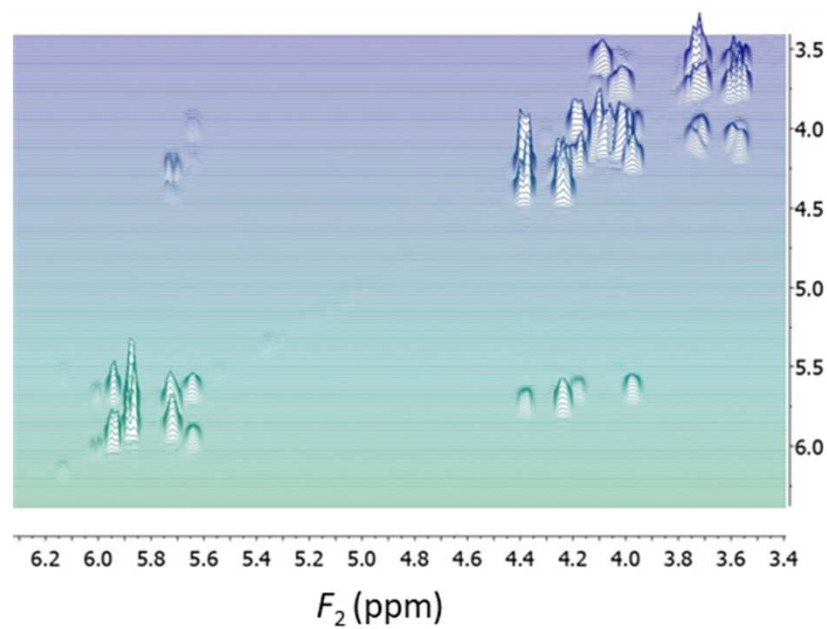
- Druhá časová proměnná
- Měří se série 1D spekter
- Dvojnásobná Fourierova transformace

2D spektra

- rozlišená
 - homonukleární
 - heteronukleární
- korelovaná
 - homonukleární
 - heteronukleární

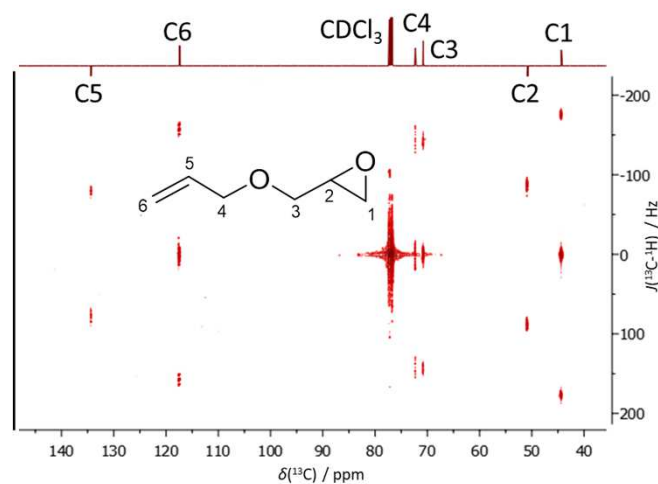
2D NMR experimenty

- Perspektivní zobrazení
- Vrstevnicové zobrazení

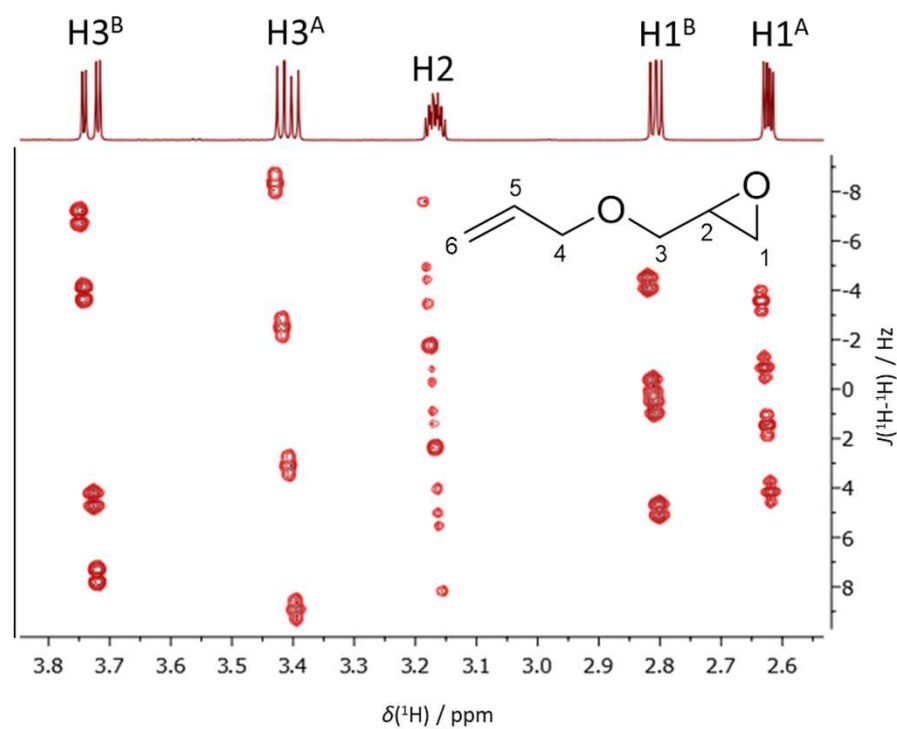


Rozlišené 2D NMR experimenty

Heteronukleární

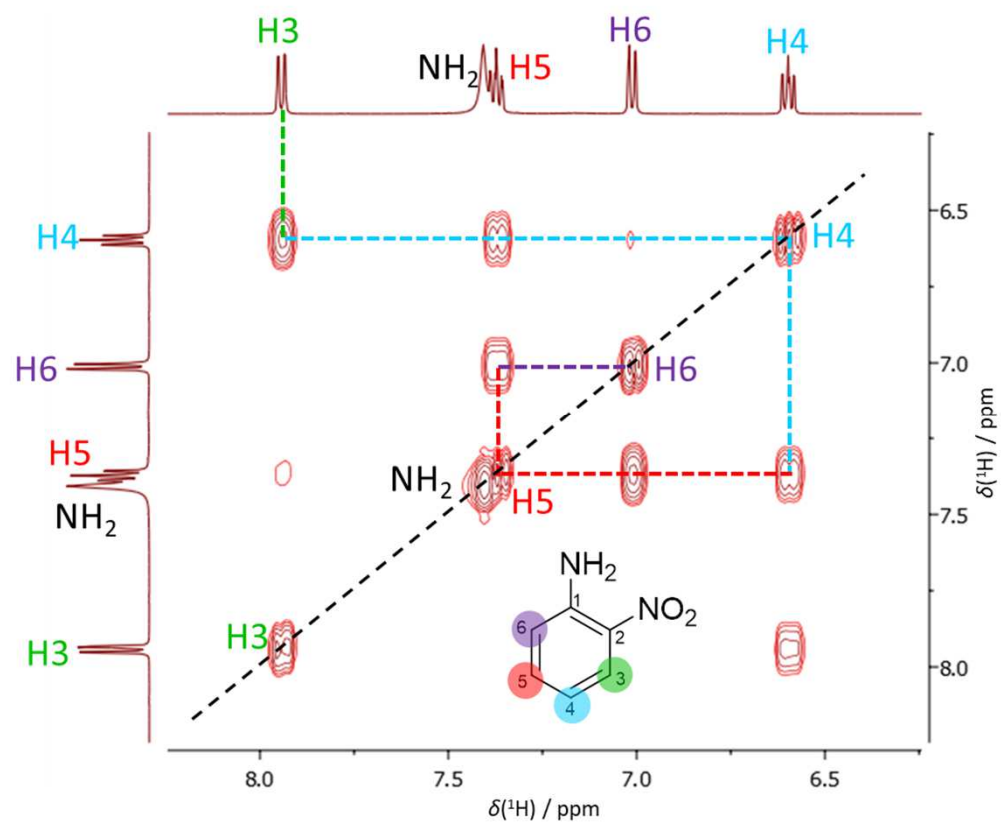


Homonukleární



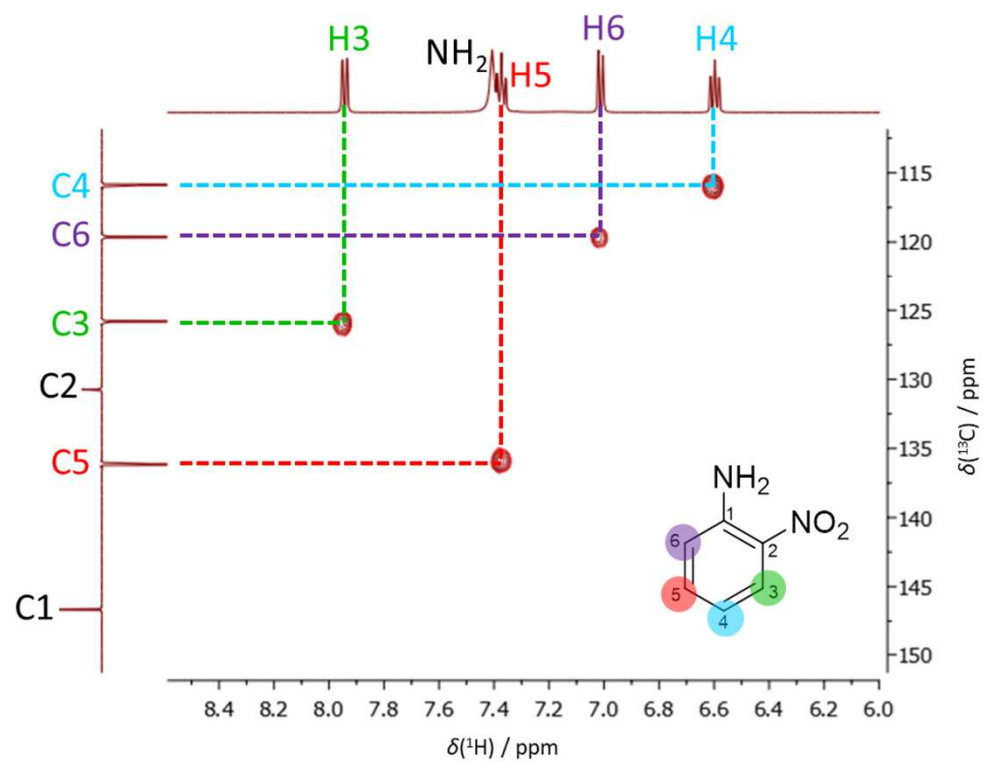
Correlation Spectroscopy (COSY)

- Přenos polarizace
- Homonukleární korelované spektrum, diagonální píky, kroszíky



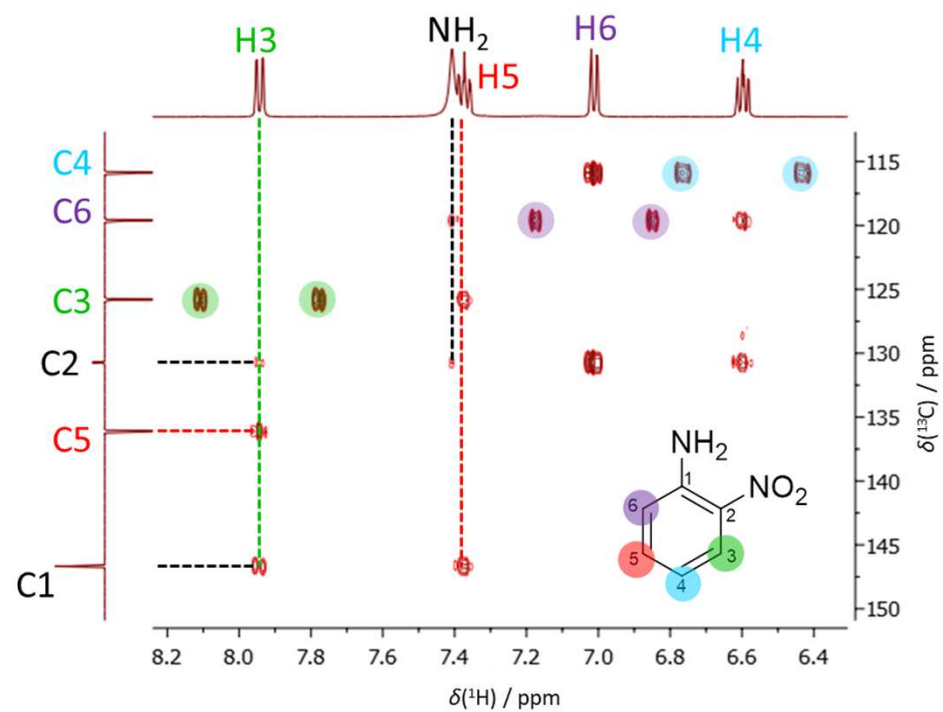
HSQC, HMQC

Heteronukleární korelované spektrum



HMBC

Heteronukleární korelované spektrum



NOESY, ROESY

