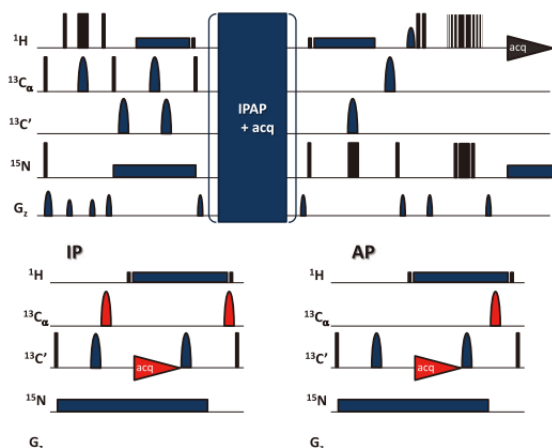


JNM-ECZR NMR Spectrometer Multiple Receiver Capabilities

Related information: Nuclear Magnetic Resonance instrument (NM)

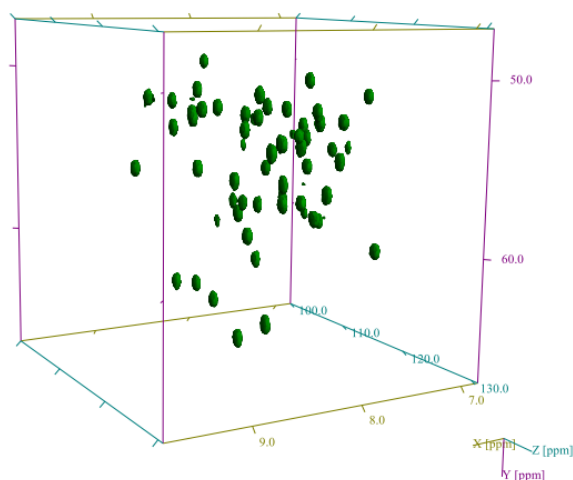


JNM-ECZR is equipped with one receiver per 2 RF transmitter module. Multiple receiver functionality is included with the addition of optional RF transmitter receiver modules.

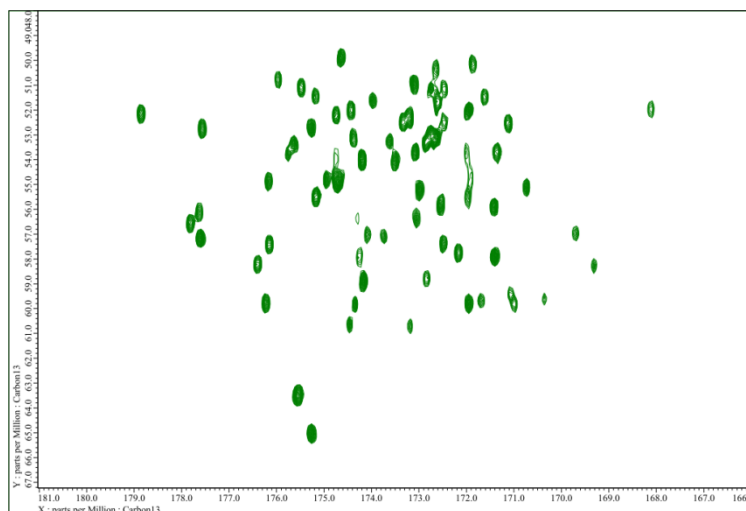
JNM-ECZR allows users to easily collect data with multiple receivers. Pulse sequences can easily be adapted with the addition of a few lines of code to collect multiple receiver data without the need to move any cables or modules.

The diagram (left) shows an example of multiple receivers for the parallel collection of 3D (H)CA(CO)NH ^1H detected and 2D (H)CACO ^{13}C detected multi-dimensional data sets in a single experiment.

Pulse sequence for parallel 2D (H)CACO/3D (H)CA(CO)NH experiment * 1.



^1H detected 3D (H)CA(CO)NH spectra of $^{13}\text{C}/^{15}\text{N}$ labelled ubiquitin



^{13}C detected 2D (H)CACO spectra of $^{13}\text{C}/^{15}\text{N}$ labelled ubiquitin acquired in parallel with 3D (H)CA(CO)NH spectra

Spectrometer: JNM-ECZ900R

Sample: 1mM $^{13}\text{C}/^{15}\text{N}$ labelled ubiquitin in 90% $\text{H}_2\text{O}/10\%\text{D}_2\text{O}$

^1H detected 3D (H)CA(CO)NH spectra of $^{13}\text{C}/^{15}\text{N}$ labelled ubiquitin

* 1 Kupce E, Kay L E, Freeman R (2010) J. Am. Chem. Soc 132: 18008-18011

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