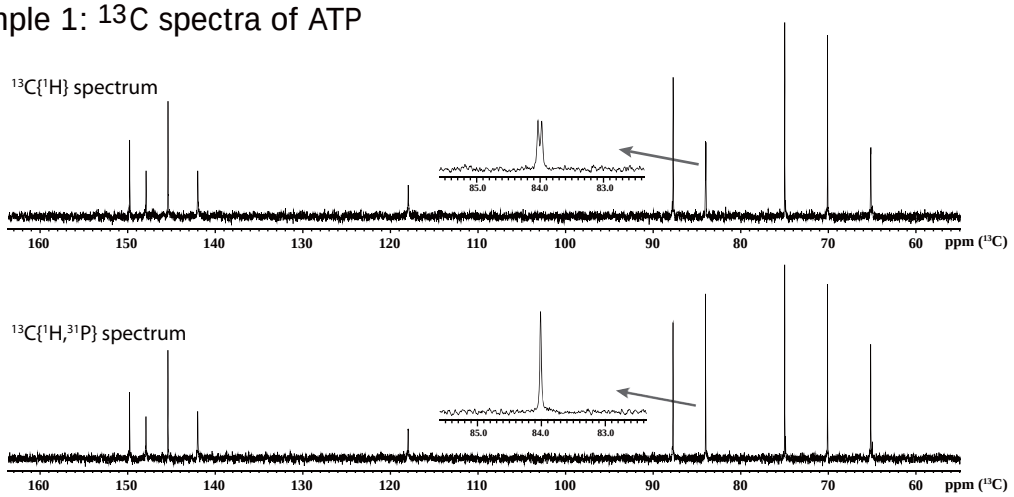
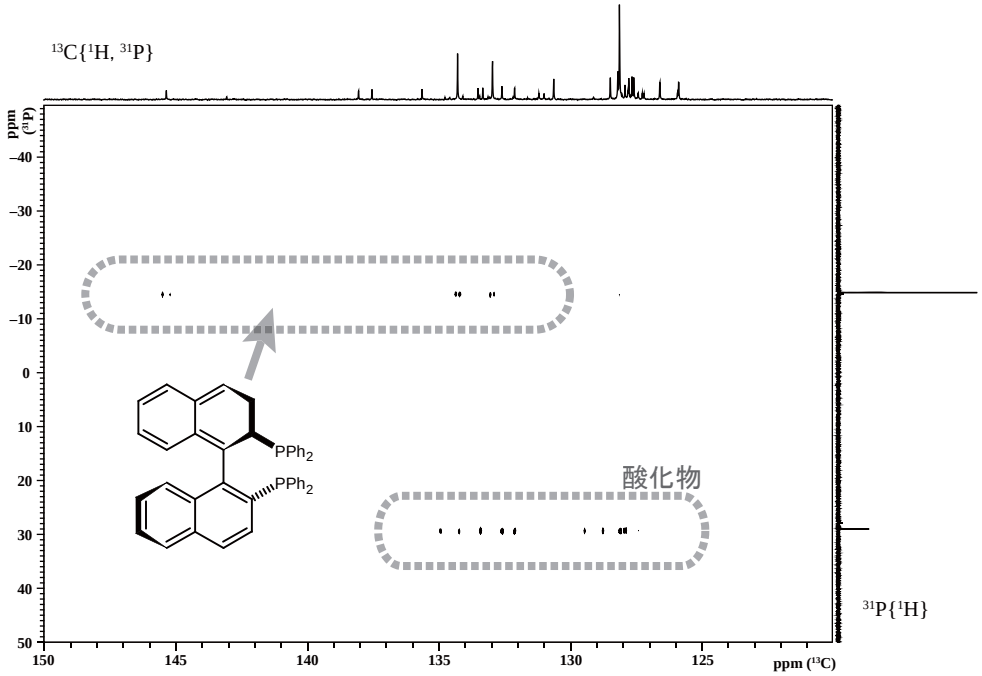
Qudruple-resonance probe: C5HPD/FG

Example 1: ^{13}C spectra of ATP



Sample : ATP/$CDCl_3$
Spectrometer : JNM-ECA600
Probe : C5HPD/FG

Example 2: ^{13}C-^{31}P shift-correlation spectrum of BINAP



^{13}C–^{31}P shift-correlation spectrum (w/ ^{1}H decoupling)

Sample : (R)-(+)-BINAP/$CDCl_3$
Spectrometer : JNM-ECA600
Probe : C5HPD/FG

A C5HPD/FG probe is a quadruple-resonance probe which can irradiate RF pulses for ^{13}C, ^{1}H, ^{31}P, and ^{2}H at once. For phosphorus-containing compounds, ^{13}C signals may split due to couplings with adjacent ^{31}P nuclei, and decoupling for ^{31}P as well as ^{1}H using a C5HPD/FG probe makes ^{13}C spectra simple (Example 1). Also, this probe allows for measurements of ^{13}C-^{31}P correlation spectra (Example 2). Thus, a C5HPD/FG probe is useful for analyzing phosphorus-containing compounds.

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