High-resolution 10mm probe

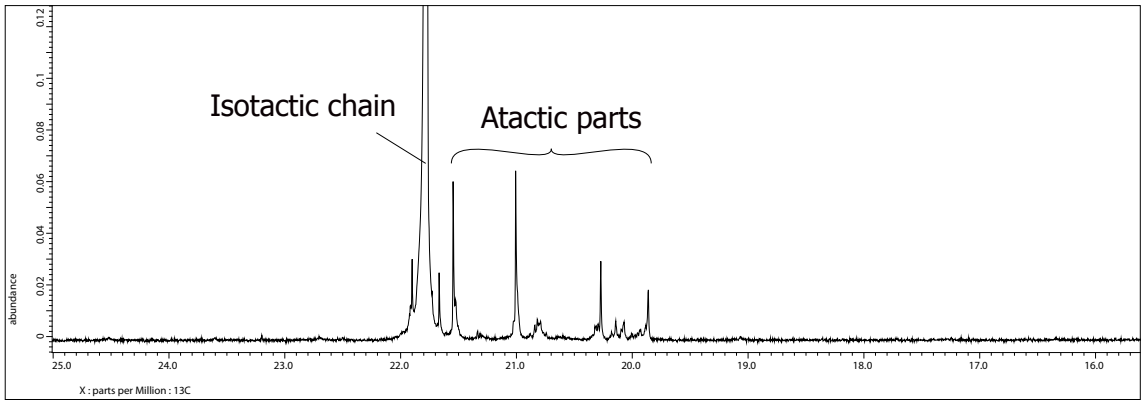

Fig. 1 $^{13}C\{^{1}H\}$ spectrum using a **high-resolution 10mm probe**
Sample: commercial polypropylene/ODCB (o-dichloro benzene-d_4)
Spectrometer: JNM-ECA600, Accumulation: 20,000scan, Temperature: 130℃

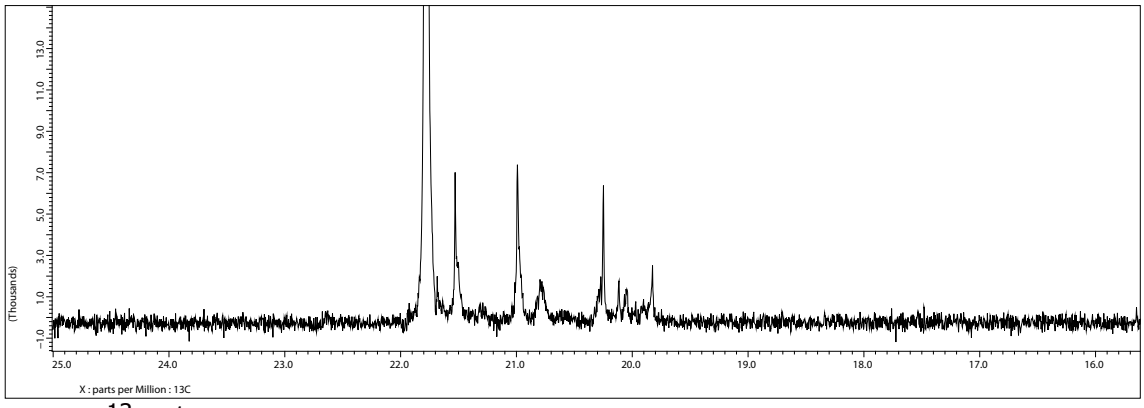

Fig. 2 $^{13}C\{^{1}H\}$ spectrum using a **5mm probe**
Sample: commercial polypropylene/ODCB
Spectrometer: 750MHz, Accumulation: 20,000scan, Temperature: 110℃
* Data are by courtesy of Prof. K. Ute of Osaka University.

A high-resolution 10mm probe achieves high sensitivity from a large volume of samples as well as high resolution due to advanced probe technology enhancing homogeneity of the magnetic field for that volume.

A ^{13}C spectrum observed using a 10mm probe (Fig. 1) exhibits resolution as high as that obtained using a 5mm probe (Fig. 2), with much higher sensitivity. Owing to sufficient resolution and sensitivity, it is possible to quantify atactic parts of polypropylene contained by about 0.1%.

Thus, a high-resolution 10mm probe is useful in the research of polymers.

JEOL RESONANCE