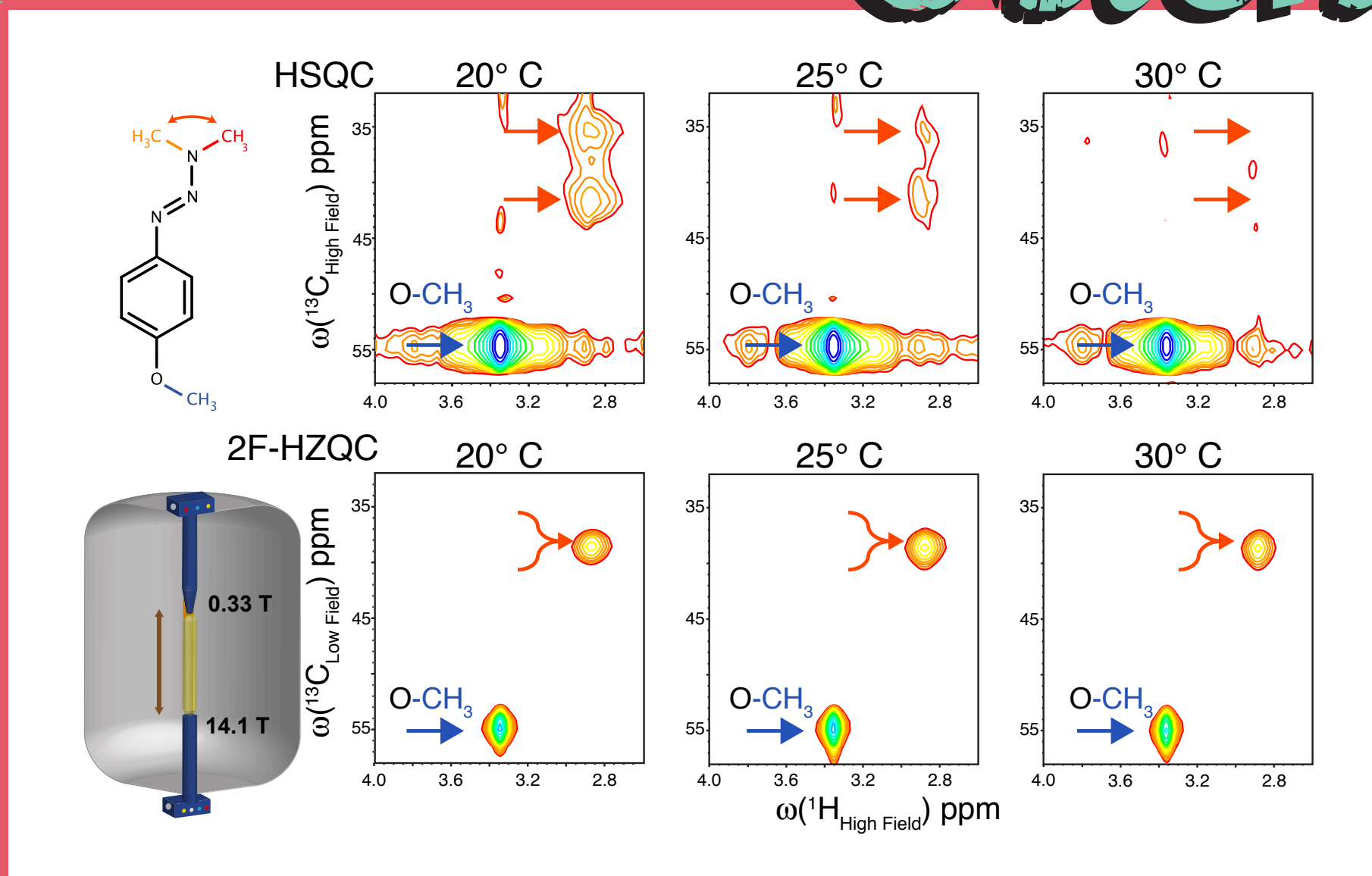




Natural-abundance triazene in benzene with two exchanging methyl groups

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Field strength: 600 MHz and 14 MHz (in a single spectrum)

Why is this your favorite spectrum?

The carbon-13 signals of the two exchanging methyl groups approach coalescence when we raise the temperature. They vanish in HSQC spectra recorded at 30°C. We use our two-field spectrometer to correlate proton chemical shifts at 14.1 T with carbon-13 chemical shifts at 0.33 T (two-field HZQC experiment). At low field, the exchanging carbon-13 nuclei are in fast exchange and easily observable. This experiment illustrates how it will be possible to benefit, in a single experiment, from the sensitivity and resolution of very high magnetic fields as well as favorable properties found at low magnetic fields.

We insert probes at the bottom AND the top of the bore of our magnet. Do not try this at home (consult your hardware doctor first).