



¹³C-urea in pure Canadian maple syrup

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Field strength: 11.7 T

Why is this your favorite spectrum?

Pure Canadian maple syrup...will it polarize? Why yes! Not only does it polarize, it's also a fantastic glassing agent that can be used to facilitate the polarization of solid DNP agents such as ¹³C-urea. As a stereotypical Canadian, there is indeed a collection of maple syrup (various grades) on my shelf of NMR references.

Comments: The maple syrup freezes as a glass at cryogenic temperatures, allowing close contact between uniformly distributed ¹³C-urea and trityl radical for efficient dynamic nuclear polarization (DNP). Upon dissolution in hot water, the T1 of ¹³C-urea was shorter than expected, suggesting a trace presence of paramagnetic maple goodness.