



Showcasing research from the group of Professor Yoh Matsuki,
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Background signal suppression by opposite polarity subtraction for targeted DNP NMR spectroscopy on mixture samples

The Matsuki group is developing methods and instruments for DNP-enhanced MAS NMR spectroscopy. DNP enhances the sensitivity of MAS NMR by orders of magnitude, but target selectivity has been an issue. The newly developed technique, the opposite polarity subtraction (Oops) DNP, utilizes the multiple-frequency DNP excitation to suppress background signals from not-of-interest regions, enabling selective observation of target molecules within complex mixtures at high sensitivity. This technique should prove useful, for example, in the targeted protein structural analysis in intact biological cells.

As featured in:



See Yoh Matsuki *et al.*,
Phys. Chem. Chem. Phys.,
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