

SCIENCE



¹⁹*F*-¹*H* HOESY of PFDMMOBA with β -cyclodextrin

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Field strength: 500 MHz

Why is this your favorite spectrum?

My dissertation research is focused on the host-guest complexes formed between cyclodextrins and perfluorinated surfactants. We were finally able to acquire a ¹⁹F-¹H HOESY spectrum of one of the host-guest complexes (visualized here as the proton slices across f1 for the f2 frequencies of the fluorine signals), which was so exciting because 1) it confirmed the inclusion complex (crosspeaks are only present for protons facing interior of cyclodextrin cavity) and 2) it clearly shows the orientation of β -cyclodextrin in the host-guest complex relative to PFDMMOBA (carboxylate of PFDMMOBA near primary hydroxyl groups of cyclodextrin). It was probably the best day in research I've had so far.