

Biomolecular Solid-State NMR

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In this tutorial, a practical introduction to modern biological solid-state NMR spectroscopy will be presented, aimed at students and the general audience of scientists interested in entering the field. General protocols for protein structure determination and dynamics studies by magic angle spinning NMR will be outlined. The basic building blocks of solid-state MAS NMR experiments will be discussed, including polarization transfer, dipolar and scalar recoupling. An overview of 2D and 3D MAS NMR experiments for protein structural biology will be given. Emerging experiments for fast and ultrafast MAS conditions will be described.