Institut Européen de Chimie et Biologie

I E C B

Structures of Supramolecular Assemblies Revealed by Solid-State NMR.

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I will present state-of-the-art solid-state NMR methodology (1) to study biological systems. Solid-state NMR is not limited by the molecular size and does not require crystallinity or long-range structural order. It is therefore a powerful tool to collect structural and dynamics information on insoluble and non-crystalline systems, such as fibrils, filaments, precipitates, gels or nano/microcrystals. Notably, I will show that solid-state NMR is a promising approach to solve atomic structures of supramolecular assemblies, illustrated here with the *Salmonella typhimurium* Type III Secretion System Needle (2).

(1) Loquet et al., **J. Am. Chem. Soc.** *2008*, *2008*, *2010*, *2011*
(2) Loquet et al., **Nature** *2012*

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