Resolving the dynamic structure of chlorosomes in green sulfur bacteria by MAS NMR

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Lolita Ashwini Dsouza

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For Kevin, Kiana, Keon

&

My parents

Table of Contents

Abbreviations

[Bu, Et]	[Butyl, Ethyl]
[Et, Et]	[Ethyl, Ethyl]
[Me, Et]	[Methyl, Ethyl]
[Pr, Et]	[Propyl, Ethyl]
BChl	Bacteriochlorophyll
Cba. tepidum	*Chlorobaculum tepidum*
CP	Cross Polarisation
Cryo-EM	Cryo Electron Microscopy
DGDG	DiGalactosylDiacylGlycerol
DP	Direct Polarisation
INEPT	Insensitive nucleus enhanced by Polarisation transfer
FMO	Fenna Matthews Olson
MAS	Magic Angle Spinning
MGDG	MonoGalactosylDiacylGlycerol
PDSD	Proton Driven Spin Diffusion
REDOR	Rotational Echo Double Resonance
RFDR	Radio Frequency Driven Recoupling
r-INEPT	Refocussed INEPT
S/N	Signal to Noise
SQDG	SulfoQuinovosylDiacylGlycerol
SSNMR	Solid-State Nuclear Magnetic Resonance
TOBSY	Total Through Bond Correlation Spectroscopy
WT	wild type