Abbreviations:

ALTADENA	adiabatic longitudinal transport after dissociation engenders net alignment ([11], “method 42”)
BCP	BRAIN-CP/WURST-CPMG experiment ([43], “method 23”)
BRAIN	broadband adiabatic inversion ([2], “method 23”)
CAVERN	cryogenic adsorption vessel enabling rotor nestling ([12], “method 35”, sample tube system 5, via link “*In Situ* Solid-State NMR Techniques “)
CF	continuous flow ([13, 14], “method 41”)
CP	cross polarization ([15], “methods 5, 13”)
CPMG	Carr-Purcell-Meiboom-Gill ([43], “method 23”)
CSA	chemical shift anisotropy ([42], “method 23”)
D-HMQC	dipolar mediated heteronuclear multiple quantum coherence ([5], “method 17”)
DME	dimethyl ether ([16], “method 41”)
DNP	dynamic nuclear polarization ([1, 40], “method 23”)
DOR	double-rotation or double oriented rotation ([8], “method 10”)
FSFT	field sweep Fourier transform ([9], “method 22”)
GC	gas-chromatograph or gas-chromatography ([17], “method 41”)
HETCOR	heteronuclear chemical shift correlation ([22], “method 8”)
HMQC	heteronuclear multiple quantum coherence ([5], “method 17”)
HOMO	highest occupied molecular orbital ([24, 25], “method 31”)
HP	hyperpolarization or hyperpolarized ([26], “method 19”)
HPDEC	high-power decoupling ([20], “methods 5, 13”)
HTHP	high temperature high pressure ([21], “method 35”)
J-HMQC	J-resolved heteronuclear multiple quantum coherence ([41], “method 23”)
LUMO	lowest unoccupied molecular orbital ([24, 25], “method 31”)
MAS	magic angle spinning ([19], e.g. “method 1”)
MDA	methane dehydroaromatization ([37], “method 17”)
MOF	metal-organic framework ([44], “method 5”)
MQMAS	multiple-quantum MAS ([7], “methods 7, 9, 10, 11, 16”)
MTBE	methyl tert-butyl ether ([27], “method 40”)
MTHC	methanol-to-hydrocarbon ([28], “method 41”)

MTO	methanol-to-olefin ([28], “method 41”)
MTP	methanol-to-propene ([29], “method 41”)
NHC	N-heterocyclic carbine ([41], “method 23”)
ORIACT	off-resonance rotation-induced adiabatic coherence transfer ([6], “method 9”)
PA	proton affinity ([30], “method 11”)
PA	polarizing agent ([40], “method 23”)
PASADENA	parahydrogen and synthesis allow dramatically enhanced nuclear alignment ([11], “method 42”)
PHIP	parahydrogen-induced polarization ([31], “method 42”)
PT	population transfer ([5], “method 17”)
QCPMG	quadrupolar Carr-Purcell-Meiboom-Gill ([4], “method 17”)
REDOR	rotational-echo double resonance ([10])
SATRAS	satellite transition spectroscopy ([32], “method 20”)
SDA	structure-directing agent ([33], “method 8”)
SEDOR	spin echo double resonance ([39], “method 22”)
SEHS	spin echo height spectroscopy ([9], “method 22”)
SEIS	spin echo integration spectroscopy ([9], “method 22”)
SENS	surface enhanced NMR spectroscopy ([1], “method 23”)
SMSI	strong metal-support interaction ([38], “method 22”)
SOQE	second order quadrupolar effect ([34], “method 10”)
TMPO	trimethylphosphine oxide ([35], “methods 28, 31”)
TRAPDOR	transfer of population in double resonance ([10])
UV/Vis	ultraviolet visible ([18], “method 41”)
VOCS	variable offset cumulative frequency stepping ([9], “method 22”)
VTMAS	variable-temperature MAS ([36], “method 20”)
WISE	wide-line separation ([23], “method 8”)
WURST	wideband uniform-rate smooth truncation ([3], “method 17”)

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