

Customer Information

Customer Name	Sai Sankar Gupta K. B.
Operator Name	Sai Sankar Gupta K. B.
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Bruker Information

Office	Bruker Netherlands
Engineer	Narendra
Service Contract No.	
SAP Service Ticket No.	

Probe Information

Order No.	
Description	CP2.1 TCI 600S3 H&F/C/N-D-05 Z XT
P/N	Z168568
S/N	0015

Approval

Place: 2333 AL Leiden, The Netherlands
Date: Mar 11, 2025

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Date: Mar 11, 2025

Sai Sankar Gupta K. B.

Customer Representative Signature

Narendra

Bruker Representative Signature

Spectrometer Information

Order No.	10017285
System	Avance III 600
Location	Leiden the Netherlands
TopSpin Version	TopSpin 3.7.0 - Build local

NMR Probe

Description	Probe ID	Inspection Lot	Status
CP2.1 TCI 600S3 H&F/C/N-D-05 Z XT	Z168568_0015	2025-03-11_test	fail

Copies of all spectra (default and additional) are included in customer's PDF report.

General Test Information

Summary of Inspection Lot

Description	Probe ID	Inspection Lot
CP2.1 TCI 600S3 H&F/C/N-D-05 Z XT	Z168568_0015	2025-03-11_test

Experiments Measured

Sample	Experiment	Status
Z10263	P90 1H pulse calibration (NPT_1H_p90determinationf1_1h)	pass
Z10263	CPD 1H pulse calibration (NPT_1H_cpddeterminationf1_1h)	pass
Z10263	Indirect P90 13C pulse calibration (NPT_1H_p90determinationf2_13c)	pass
Z10263	Indirect CPD 13C pulse calibration (NPT_1H_cpddeterminationf2_13c)	pass
Z10263	Indirect P90 15N pulse calibration (NPT_1H_p90determinationf2_15n)	pass
Z10263	Indirect CPD 15N pulse calibration (NPT_1H_cpddeterminationf2_15n)	pass
Z10263	P90 2H pulse calibration (NPT_prep_p90det_d)	pass

Experiments not Measured

Sample	Experiment
Z10163	13C lineshape with sample rotation (NPT_13C_lineshape_wrot)
Z10163	13C sensitivity (NPT_13C_sensitivity)
Z10902	Watersuppression with recommended gas flow (NPT_1H_watersuppression_recflow)
Z10902	2H sensitivity, 10% D2O (NPT_prep_sensitivity_10_d)
Z10248	1H lineshape with sample rotation and NS = 4 (NPT_1H_lineshape_wrot)
Z10248	1H lineshape without sample rotation (NPT_1H_lineshape_nrot)
Z10120	1H sensitivity (NPT_1H_sensitivity)
Z10234	19F P90 pulse calibration on H-coil (NPT_19F_p90determinationf1_hcoil)
Z10234	19F sensitivity on H-coil (NPT_19F_sensitivity_hcoil)
Z10627	1H temperature calibration with 99.8% MeOD (NPT_1H_tempcalib_998meod)
Z10187	15N sensitivity with 1H decoupling (NPT_15N_sensitivity_dec1h)
Z10153	13C sensitivity with 1H decoupling (NPT_13C_sensitivity_dec1h)

Achieved Specifications

Pulse Width

Nucleus	Sample		90° Pulse		Power Limit [W]	Method	Status
			Duration [μs]	Power [W]			
¹ H	Z10263	spec.	8.0	-	9.4	direct	pass
		ach.	7.9	5.6			
¹ H	Z10263	spec.	80.0	-	9.4	direct CPD	pass
		ach.	79.8	0.1			
¹³ C	Z10263	spec.	12.0	-	121	indirect	pass
		ach.	12.0	91.7			
¹³ C	Z10263	spec.	55.0	-	121	indirect CPD	pass
		ach.	54.8	4.1			
¹⁵ N	Z10263	spec.	25.0	-	266	indirect	pass
		ach.	24.9	208.2			
¹⁵ N	Z10263	spec.	170.0	-	266	indirect CPD	pass
		ach.	169.3	4.4			
² H	Z10263	spec.	68.0	-	42	direct	pass
		ach.	67.9	41.4			

Samples used for Inspection Lot

Sample	Description
Z10120	0.1% Ethylbenzene (EB) in Chloroform-D
Z10153	10% Ethylbenzene (EB) in Chloroform-D
Z10163	40% Dioxane in Benzene-D ₆ (ASTM)
Z10187	90% Formamide (HCONH ₂) in Dimethyl Sulfoxide-D ₆
Z10234	0.05% Trifluorotoluene (TFT, a,a,a-CF ₃ C ₆ H ₅) in Chloroform-D
Z10248	1% Chloroform (CHCl ₃) in Acetone-D ₆
Z10263	100 mM Urea- ¹⁵ N ([¹⁵ NH ₂] ₂ CO), 100 mM Methanol- ¹³ C (¹³ CH ₃ OH) in Dimethyl Sulfoxide-D ₆
Z10627	Temperature Calibration - 99.8% Methanol-D ₄
Z10902	2 mM Sucrose, 0.5 mM DSS, 2 mM NaN ₃ in 90% H ₂ O + 10% D ₂ O (40 mm filling height)

Remarks / Exclusions

Test for 15N pulses