Britti Scientific®

Certificate of Analysis

Potassium Hydrogen Phthalate reference standard traceable to NIST, AnStan®.

Product Code:	**BS10217.**
Description:	**Potassium Hydrogen Phthalate reference standard traceable to NIST, AnStan®.**
Synonym:	**Monopotassium Phthalate.**
Pack Size:	**100 gm.**
CAS No.:	**877-24-7.**
Mol. Weight:	**204.22 g/mol.**
Mol. Formula:	**$C_8H_5KO_4$.**
MDL Number:	**MFCD00013070.**
Solubility:	**Miscible in water.**
Storage:	**Store at ambient temperature.**
Batch No:	**BS10217/17.**
Manufacture Date:	**11/02/2026.**
Expiry Date:	**10/02/2031.**

Characteristics	Specification	Result
Appearance:	White crystalline powder.	**White crystalline powder.**
Insoluble matter:	NMT.0.005%.	**0.004%.**
Identification by NMR:	Confirms to the structure.	**Confirms to the structure.**
Identification by MASS:	Confirms to the structure.	**Confirms to the structure.**
Identification by IR:	Confirms to the structure.	**Confirms to the structure.**

Assay ($C_8H_5KO_4$; Dried basis):	**99.99% (U = ± 0.01%, k = 2).**

Please Note: - This material is only for laboratory purpose and not for human consumption.

Certification & Traceability:

This product was manufactured, processed and/or certified under a quality management system that complies with **ISO 17034:2016 and ISO/IEC 17025: 2017**.

The balances used in the preparation of this product are calibrated regularly, using a calibration provider that complies with **ISO/IEC 17025**. All standard components used in the manufacture of this product are pre-qualified and verified before use. This product was analysed according to protocol developed by NIST and is directly traceable to **NIST SRM84L**.

Tests were performed for capacity, readability, repeatability and linearity. This product is manufactured, packaged, stored, and shipped in accordance with good manufacturing practices that is certified to **WHO-GMP**. The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of **k=2**.

The combined uncertainty u is derived from combination of the squared uncertainty contributions:

$$U = k \times \sqrt{u^2\text{Characterisation} + u^2\text{Homogeneity} + u^2\text{Stability}}$$

uCharacterisation: is the uncertainty in accordance with ISO/IEC 17025 which includes the contributions of the primary reference material and the measuring system.

uHomogeneity: is the between-bottle variation in accordance with ISO 17034. The assessment of homogeneity is performed by analysis of a representative number of systematically chosen sample units.

uStability: is the uncertainty obtained from short-term and long-term stability in accordance with ISO 17034. The stability studies are the basis for the quantification of the expiry date of this reference material for the unopened bottle.

Validity Period:

Briti Scientific standards ensure the accuracy of this product for 5 years from the manufacture date given above, provided the instructions for use are followed.

Quality Certifications:

This product was prepared under a quality management system that complies with the following:

ISO 17034:2016: Reference Materials Producer, CGI Certificate No. WGMP/22N2594 – General Requirements for the Competence of Reference Material Producers.

ISO 17034 references additional requirements specified in ISO Guide 31 and ISO Guide 35.

ISO/IEC 17025:2017: Chemical Testing, CGI Certificate No. UG/23N256- General Requirements for the Competence of Testing and Calibration Laboratories.

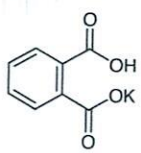
ISO 9001:2015 Certified: Quality Management Systems, CGI Certificate No. QMS/23N258.

WHO-GMP Certified: Good Manufacturing Practices, CGI Certificate No. WGMP/22N2594.

Health and Safety Information:

Refer to the Safety Data Sheet (SDS), which can be obtained at www.britiscientific.com.

This is a computer generated COA, no stamp or signature is required.

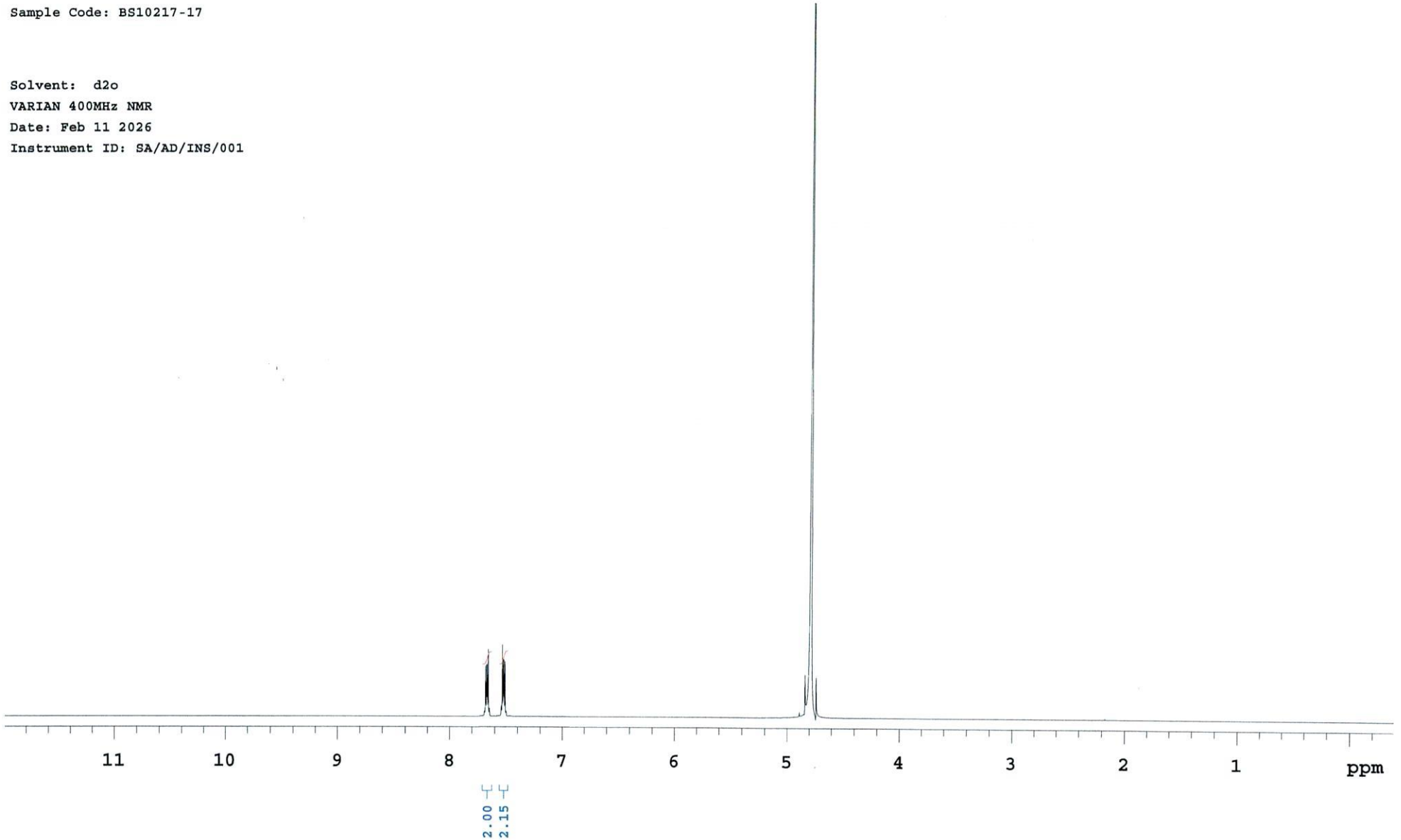


N.S. Mallika.
Quality Control.

D. Manga Raju.
Quality Assurance.

Sample Code: BS10217-17

Solvent: d2o
VARIAN 400MHz NMR
Date: Feb 11 2026
Instrument ID: SA/AD/INS/001



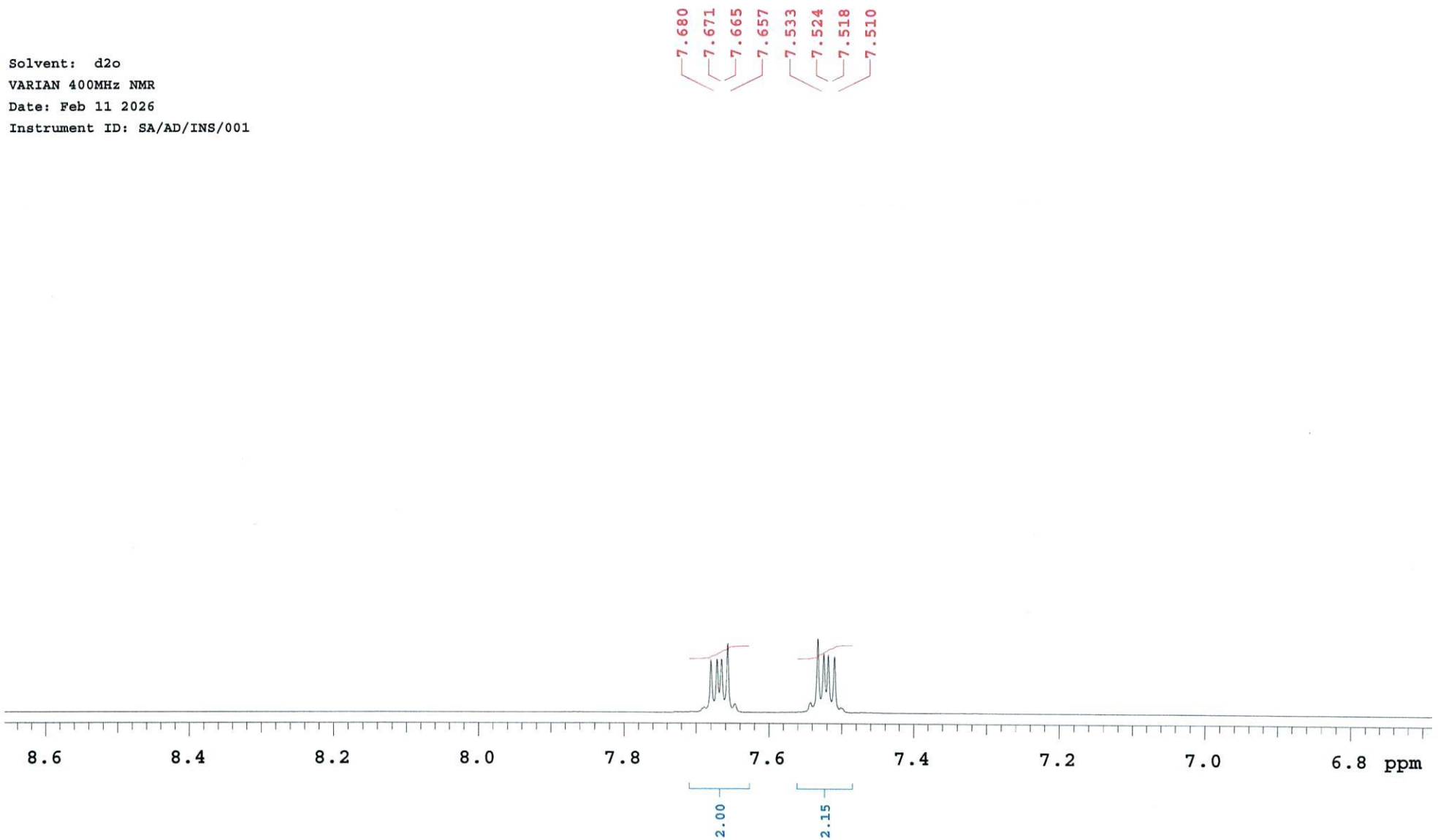
Plotname: BS10217-17_PROTON_20260211_01_plot01

11/02/2026

11/02/2026

Sample Code: BS10217-17

Solvent: d2o
VARIAN 400MHz NMR
Date: Feb 11 2026
Instrument ID: SA/AD/INS/001



Plotname: BS10217-17_PROTON_20260211_01_plot02

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11/02/2026

exp1 PROTON

SAMPLE		PRESATURATION	
date	Feb 11 2026	satmode	n
solvent	d2o	wet	n
file	/home/varian/~	SPECIAL	
data/2026/Feb/BS10~		temp	not used
217-17_20260211_01~		gain	32
/BS10217-17_PROTON~		spin	20
_20260211_01.fid		hst	0.008
ACQUISITION		pw90	13.700
sw	7183.9	alfa	10.000
at	4.000	FLAGS	
np	57472	il	n
fb	4000	in	n
bs	2	dp	y
d1	1.000	hs	nn
nt	128	PROCESSING	
ct	14	lb	0.50
TRANSMITTER		fn	not used
tn	H1	DISPLAY	
sfrq	399.690	sp	-735.4
tof	799.3	wp	7183.7
tpwr	59	rfl	2650.1
pw	6.850	rfp	1914.5
DECOUPLER		rp	-22.2
dn	C13	lp	0
dof	0	PLOT	
dm	nnn	wc	268
decwave	W40_GATB-0~	sc	0
	12	vs	52
dpwr	35	th	7
dmf	29412	ai cdc ph	

INDEX	FREQUENCY	PPM	HEIGHT
1	3069.7	7.680	9.7
2	3066.1	7.671	9.8
3	3063.7	7.665	9.9
4	3060.4	7.657	12.9
5	3010.7	7.533	13.7
6	3007.4	7.524	10.8
7	3005.0	7.518	10.8
8	3001.7	7.510	10.5
9	1934.5	4.840	8.3
10	1914.5	4.790	906.3
11	1894.6	4.740	7.7

Plotname: BS10217-17_PROTON_20260211_01_plot03

11/02/2026

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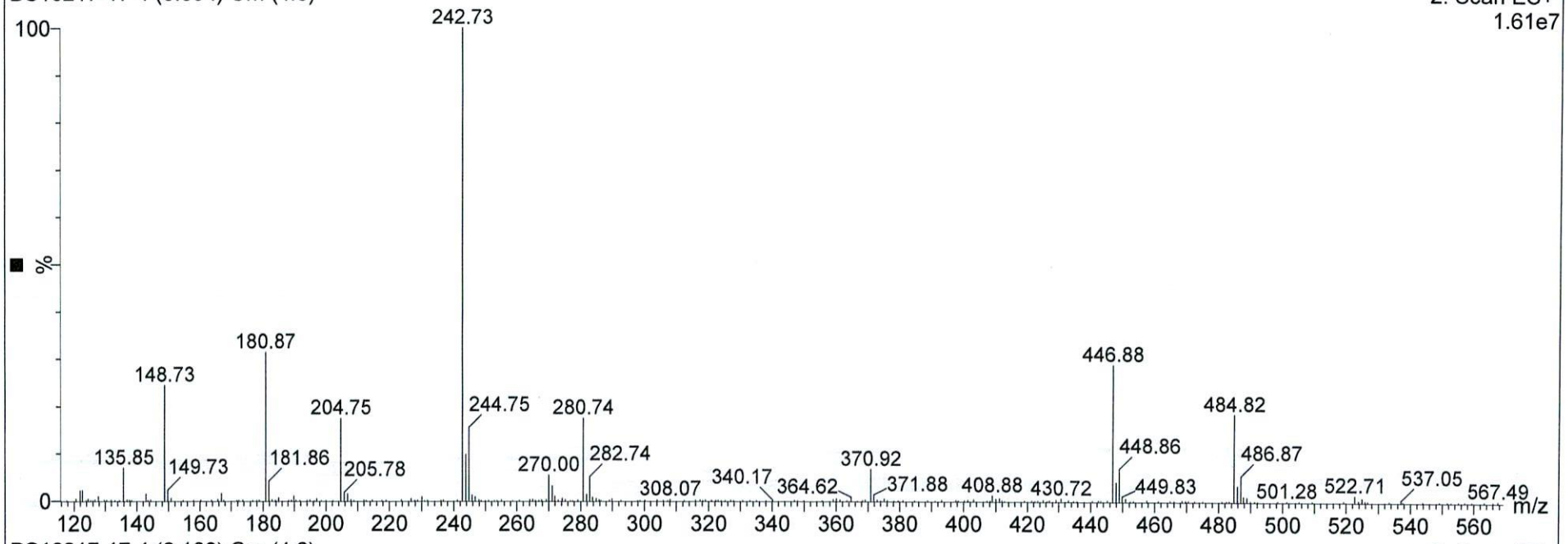
11/02/2026

SAMPLE NAME:BS10217-17
INSTRUMENT ID:SA/AD/INS/042

Vial Position:1:D,7
11-Feb-202621:30:31

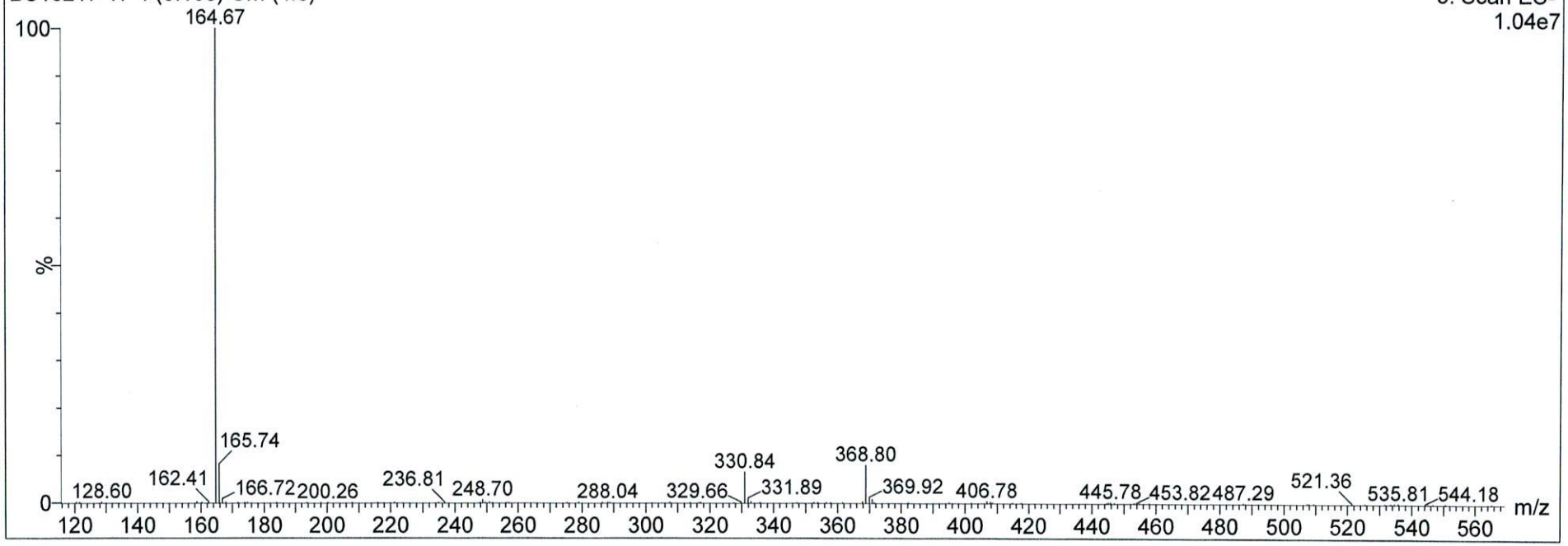
BS10217-17 4 (0.094) Cm (4:6)

2: Scan ES+
1.61e7



BS10217-17 4 (0.103) Cm (4:6)

3: Scan ES-
1.04e7



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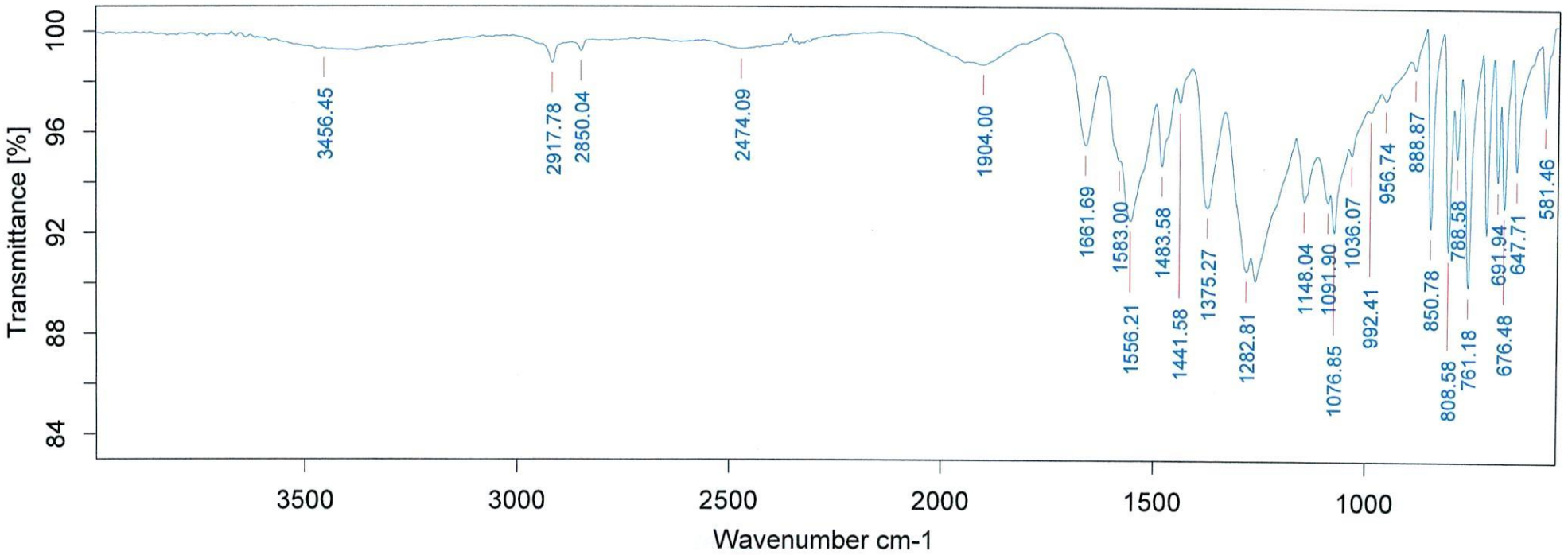
Instrument ID No: SA/AD/INS/019

INFRARED SPECTRUM



Path/File Name:D:\2026\FEB-2026/BS10217-17.0

Sample Name:BS10217-17

Lot No./Batch No:BS10217-17

Date & Time:2/12/2026,10:07:05 AM

Operator Name:SPARK

Experiment:FEBRUARY-2026-.XPM

Resolution:2

Sample Scans:16

Frequency Range:4000 to 550

2/12/2026 10:08:36 AM

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12/02/2026

- "D:\2026\FEB-2026\BS10217-17.0" 1
  - Peak Table TR
    - Peak Picking

Peak Picking	Values
Method:	Standard
Searched for minima:	Yes
Number of peaks:	29
Sensitivity > [%]:	10.000000
From:	4000.000000
to:	400.000000
Absolute peak height >	0.000000
Relative peak height < [%]	0.000000
Absolute peak height <	0.000000

Wavenumber	Abs. intensity	Rel. intensity	Width	Found if threshold <	Shoulder
2917.7765	0.987	0.012	26.0398	11.790833	0
1903.9963	0.987	0.013	177.9136	12.442015	0
1661.6872	0.955	0.033	39.1101	26.788885	0
1556.2123	0.925	0.067	86.6256	58.374554	0
1483.5788	0.947	0.027	20.1972	23.910210	0
1375.2736	0.931	0.047	42.3859	36.780781	0
1262.5558	0.901	0.100	137.5079	94.829544	0
1148.0439	0.933	0.023	26.0363	17.299698	0
1076.8538	0.921	0.051	388.0928	36.379807	0
850.7754	0.923	0.079	11.8387	74.680016	0
808.5796	0.914	0.076	13.1008	66.660873	0
788.5838	0.951	0.025	10.4612	19.167450	0
761.1843	0.899	0.103	16.6145	99.152458	0
718.2007	0.921	0.072	11.1731	69.069756	0
691.9403	0.941	0.038	8.7747	29.616753	0
676.4777	0.931	0.062	12.1915	57.299858	0
647.7100	0.946	0.046	11.8877	43.054207	0
581.4649	0.967	0.031	10.4696	27.703981	0
2850.0380	0.992	0.003	11.0703	35.981091	0
3456.4494	0.993	0.000	504.9388	0.116175	0
2474.0876	0.993	0.005	168.7166	144.251312	0

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12/02/2026

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Peak Picking Values

Wavenumber	Abs. intensity	Rel. intensity	Width	Found if threshold <	Shoulder
1583.0010	0.949	0.001	176.1492	0.085078	0
1441.5827	0.972	0.008	12.1501	10.736380	0
1282.8106	0.905	0.007	48.3290	8.123438	0
1091.9036	0.933	0.005	35.8238	9.156528	0
1036.0661	0.952	0.005	174.3052	5.427503	0
992.4057	0.969	0.002	124.9858	1.617696	0
956.7358	0.973	0.006	99.9200	10.637727	0
888.8663	0.986	0.008	32.4727	4.150333	0

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