Briti Scientific®

# Certificate of Analysis

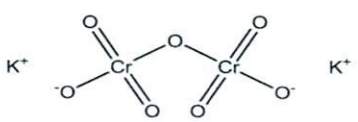
## Potassium dichromate volumetric standard for redox titration, reference standard traceable to NIST, AnStan®.

| | |
|---|---|
| Product Code: | **BS11130.** |
| Description: | **Potassium dichromate volumetric standard for redox titration reference standard traceable to NIST, AnStan®.** |
| Synonym: | **Potassium pyrochromate.** |
| Pack Size: | **100 gm.** |
| CAS No.: | **7778-50-9.** |
| Mol. Weight: | **294.19 g/mol.** |
| Mol. Formula: | **$K_2Cr_2O_7$.** |
| MDL Number: | **MFCD00011367.** |
| Melting Point: | **398 °C.** |
| Boiling Point: | **500 °C.** |
| Density: | **2.69 g/cm$^3$.** |
| Solubility: | **Miscible in water.** |
| Storage: | **Store at ambient temperature.** |
| Batch No: | **BS11130/14.** |
| Manufacture Date: | **02/02/2026.** |
| Expiry Date: | **01/02/2031.** |

| Characteristics | Specification | Result |
|---|---|---|
| Appearance: | Orange crystalline powder. | **Orange crystalline powder.** |
| Identification by MASS: | Confirms to the structure. | **Confirms to the structure.** |
| Identification by IR: | Confirms to the structure. | **Confirms to the structure.** |

| | |
|---|---|
| Assay (Iodometric): | **99.98% (U = 0.004%, k=2).** |

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 SRM136f**.

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.**

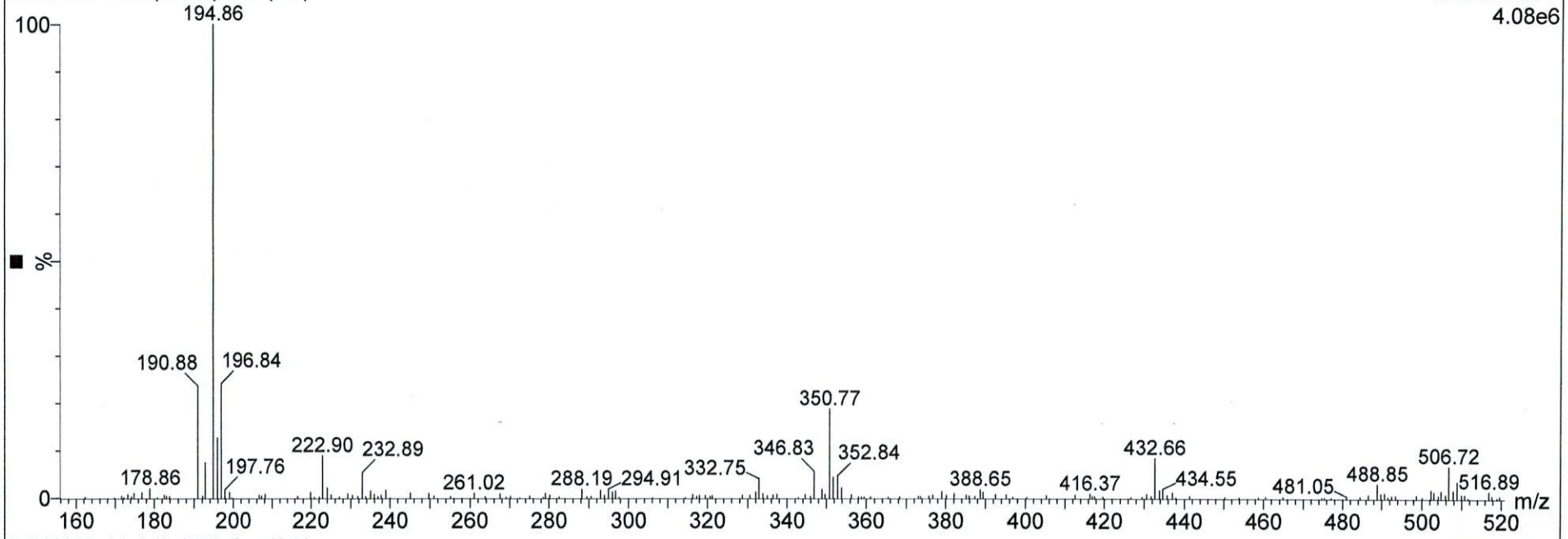
**D. Manga Raju.**
**Quality Assurance.**

**SAMPLE NAME:BS11130-14**
**INSTRUMENT ID:SA/AD/INS/042**

**Vial Position:1:E,2**
**02-Feb-202619:21:31**

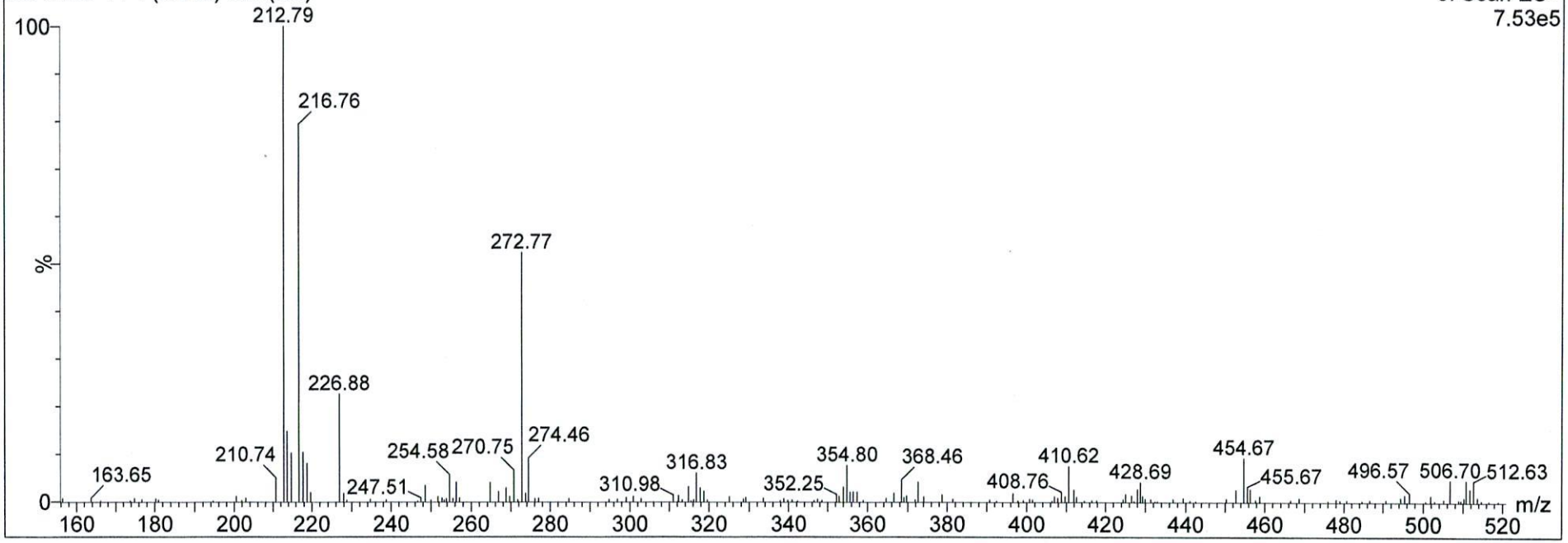
BS11130-14 5 (0.112) Cm (4:5)

1: Scan ES+
4.08e6




BS11130-14 4 (0.103) Cm (3:5)

3: Scan ES-
7.53e5

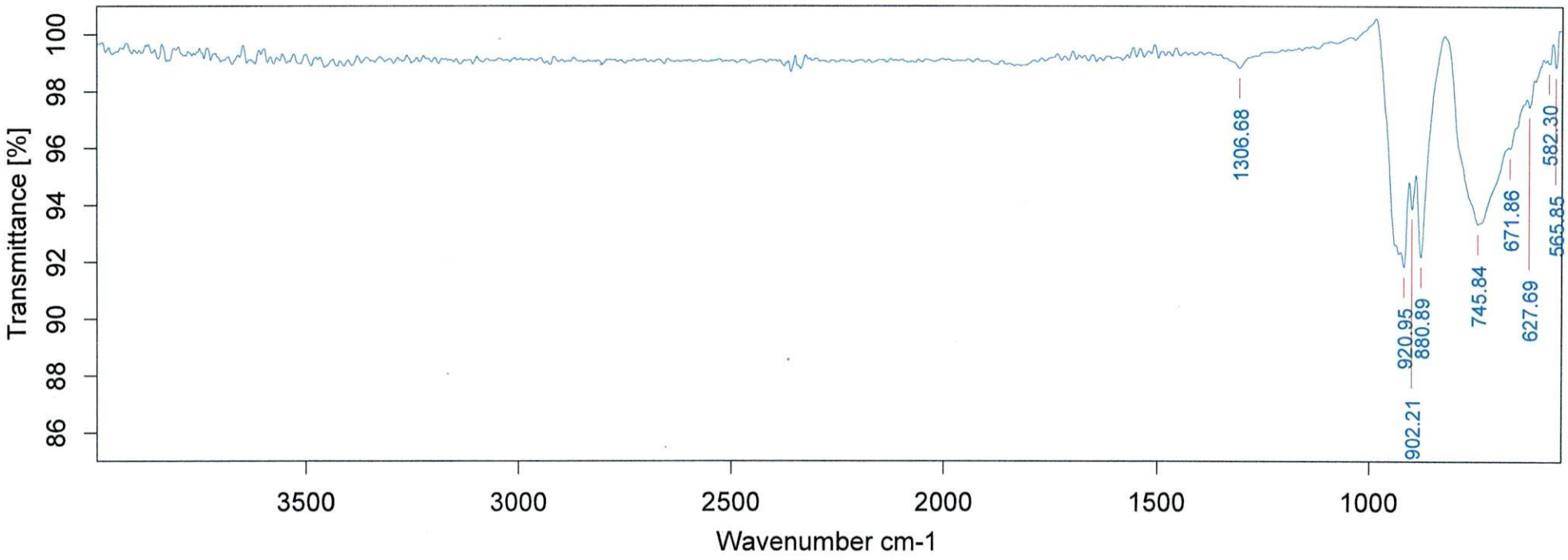



02/02/2026

D.MN
02/02/2026

Instrument ID No: SA/AD/INS/019

# INFRARED SPECTRUM




Path/File Name:D:\2026\FEB-2026/BS11130-14.0

Sample Name:BS11130-14

Lot No./Batch No:BS11130-14

Date & Time:2/2/2026,7:48:44 PM

Experiment:FEBRUARY-2026-.XPM

Resolution:2

Sample Scans:32

Frequency Range:4000 to 550

02/02/2026

**2/2/2026 7:51:32 PM**

D.M
02/02/2026

- "D:\2026\FEB-2026\BS11130-14.0" 1
  - Peak Table TR
    - Peak Picking

| Peak Picking | Values |
|---|---|
| Method: | Standard |
| Searched for minima: | Yes |
| Number of peaks: | 9 |
| 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 |
|---|---|---|---|---|---|
| 920.9548 | 0.918 | 0.087 | 96.3043 | 95.522713 | 0 |
| 902.2057 | 0.939 | 0.011 | 7.6082 | 10.889009 | 0 |
| 880.8938 | 0.922 | 0.031 | 14.3375 | 33.059811 | 0 |
| 745.8354 | 0.933 | 0.067 | 134.7786 | 75.810966 | 0 |
| 1306.6811 | 0.988 | 0.012 | 198.7397 | 139.321945 | 0 |
| 671.8557 | 0.960 | 0.002 | 103.4350 | 0.896747 | 0 |
| 627.6921 | 0.975 | 0.005 | 64.4866 | 6.234010 | 0 |
| 582.2955 | 0.990 | 0.000 | 4.8777 | 0.361576 | 0 |
| 565.8466 | 0.988 | 0.011 | 7.9631 | 31.262613 | 0 |

D:\2026\FEB-2026\BS11130-14.0 BS11130-14 BS11130-14



02/02/2026

DMP 02/02/2026