NATIONAL PHYSICAL LABORATORY
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Certificate of Calibration

UKAS REFERENCE MATERIALS 4002

NPL PRIMARY REFERENCE MATERIAL

Cylinder Number: D109110

CUSTOMER: **ISAC-CNR**

ADDRESS: Via Gobetti 101, 40129 Bologna, Italy

CALIBRATION DATE: 02 May 2023

AMOUNT FRACTION:

Component	Amount fraction / (µmol/mol)
Nitrogen monoxide	5.00 ± 0.05
Nitrogen	Balance

The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor $k = 2$, providing a coverage probability of approximately 95 %. The uncertainty evaluation has been carried out in accordance with UKAS requirements.

METHODS: Preparation: gravimetry; Analysis: chemiluminescence

TRACEABILITY: The values on this certificate are traceable to NPL Primary Standards

EXPIRY: Certificate valid for 2 years from the date of issue

PRESSURE: Fill pressure: 101 bar; Minimum utilisation pressure: 5 bar

STORAGE: No special precautions are required

HANDLING: Refer to ISO 16664

OUTLET: BS 341 No. 14 Valve

INTENDED USE: Calibration standard

Reference: 2022110336 **Date of issue:** 07 June 2023

Signed: (Authorised Signatory)

Name: Dr D R Worton (on behalf of NPLML)

Checked by:

CIPM MRA

This certificate is consistent with the capabilities that are included in Appendix C of the MRA drawn up by the CIPM. Under the MRA, all participating institutes recognise the validity of each other's calibration and measurement certificates for the quantities, ranges and measurement uncertainties specified in Appendix C (for details see http://www.bipm.org).