

Calibration certificate

CALTECH Calibration Technology

THIS IS TO CERTIFY THAT THE PERMEATION SOURCE TYPE WAFER

SERIAL NO 007458 HAS THE PARAMETERS SPECIFIED BELOW:

GAS:

NO₂

CALIBRATION TEMPERATURE:

50

deg C

PERMEATION RATE:

410

ng/min

CONCENTRATION AT 1.0 l/MIN
(Corrected to 760 mm Hg & 20 deg C)

215

ppb

CALIBRATION DATE:

05/09/2017

Calibration of the source has been performed by keeping it in a constant temperature chamber purged with dry inert gas and weighing periodically until stable weight loss per unit of time has been achieved. Temperature control accuracy is better than ± 0.04 deg C and the weight loss is determined on a semi-micro analytical balance accurate to ± 0.01 mg. The temperature and weight measurements are performed using equipment calibrated against NPL traceable standards. The total expanded uncertainty of permeation tube output determination calculated in accordance with the ISO Guide to measurement uncertainty is $\pm 5\%$.

CALIBRATION MADE BY:

P Levitoux

QUALITY CONTROL: H Lewandowska

DATE: 05/09/2017