

Certificate Of Calibration

Certificate No: PSCAL190213PS418K0646
Issued by PalmSens BV



Instrument model: PalmSens4
Instrument description: Potentiostat
Instrument serial number: PS41902019113
Date of calibration: 13-Feb-19

Temperature: 21°C +/- 5 °C
Relative humidity: 20% to 80%

Calibration equipment used:

Instrument:	Model description:	Serial number:	Calibration Due Date
PalmSens Autotester	High precision resistors switch	PSA-001	01-Dec-19
Keysight 34465A	Digital Multimeter	MY57511084	20-Jun-19

Instrument condition:

This certifies that the equipment has been calibrated using applicable PalmSens BV procedures. At the completion of calibration, measured values were IN SPECIFICATION at the points tested.

A handwritten signature in blue ink, appearing to read "C.J. van Velzen", written over a horizontal blue line.

Print Date: 7-mrt-19

C.J. van Velzen
CTO

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Calibration test results

Potential Accuracy

E Applied	PalmSens4	Keysight DMM	Read Error	Applied Error	Result
-9.5000	-9.4999	-9.5038	0.04%	0.04%	PASS
-8.5500	-8.5501	-8.5505	0.01%	0.01%	PASS
-7.6000	-7.5999	-7.6004	0.01%	0.00%	PASS
-6.6500	-6.6500	-6.6502	0.00%	0.00%	PASS
-5.7000	-5.6998	-5.7001	0.01%	0.00%	PASS
-4.7500	-4.7498	-4.7500	0.00%	0.00%	PASS
-3.8000	-3.8000	-3.8001	0.00%	0.00%	PASS
-2.8500	-2.8499	-2.8501	0.01%	0.00%	PASS
-1.9000	-1.8999	-1.9001	0.01%	0.00%	PASS
-0.9500	-0.9500	-0.9502	0.02%	0.02%	PASS
0.0000	0.0001	0.0000	<0.0020V	<0.0020V	PASS
0.9500	0.9500	0.9499	0.01%	0.01%	PASS
1.9000	1.8999	1.8998	0.00%	0.01%	PASS
2.8500	2.8499	2.8498	0.00%	0.01%	PASS
3.8000	3.8000	3.7999	0.00%	0.00%	PASS
4.7500	4.7498	4.7498	0.00%	0.00%	PASS
5.7000	5.6999	5.6999	0.00%	0.00%	PASS
6.6500	6.6500	6.6501	0.00%	0.00%	PASS
7.6000	7.5999	7.6002	0.00%	0.00%	PASS
8.5500	8.5500	8.5504	0.00%	0.00%	PASS
9.5000	9.4998	9.5003	0.01%	0.00%	PASS

Currentranges Accuracy (Potentiostatic)

Range	I at E neg	I at E zero	I at E pos	Result
100 pA	-2.9898	0.0202	3.0059	PASS
1 nA	-2.9998	0.0018	2.9997	PASS
10 nA	-2.9999	0.0017	2.9997	PASS
100 nA	-2.9999	0.0001	2.9999	PASS
1 uA	-3.0000	0.0002	3.0000	PASS
10 uA	-3.0000	0.0002	2.9999	PASS
100 uA	-3.0000	0.0002	2.9999	PASS
1 mA	-3.0000	0.0002	2.9999	PASS
10 mA	-1.0000	0.0002	1.0000	PASS

Currentranges Accuracy (Galvanostatic)

Range	E at I neg	E at I zero	E at I pos	Result
1 nA	-0.2997	0.0002	0.3001	PASS
10 nA	-0.2997	0.0002	0.3000	PASS
100 nA	-2.9985	0.0002	2.9983	PASS
1 uA	-2.9982	0.0002	2.9983	PASS
10 uA	-2.9982	0.0002	2.9983	PASS
100 uA	-2.9983	0.0002	2.9983	PASS
1 mA	-2.9982	0.0002	2.9983	PASS
10 mA	-0.9992	0.0002	0.9995	PASS

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