

CERTIFICATE OF CALIBRATION

Certificate #:	291165-230727	Customer Name:	Definitive Special Projects Ltd
Model:	Pronto-Si V14	Instrument ID:	
Head Serial Number:	291165	Date of Calibration:	July 26, 2023
Firmware Version:	1.00.08	Calibration Due Date:	July 26, 2024
Cal. Procedure:	420- 190244		

Calibration Data

Sensitivity [A/W]										
Calibration without attenuator										
λ [nm]	00	10	20	30	40	50	60	70	80	90
300			0.1779	0.1788	0.1771	0.1727	0.1653	0.1593	0.1658	0.1767
400	0.1876	0.1981	0.2086	0.2191	0.2298	0.2406	0.2515	0.2626	0.2733	0.2849
500	0.2974	0.3092	0.3210	0.3328	0.3441	0.3556	0.3671	0.3785	0.3900	0.4015
600	0.4130	0.4242	0.4351	0.4460	0.4569	0.4676	0.4783	0.4887	0.4987	0.5085
700	0.5182	0.5277	0.5371	0.5466	0.5558	0.5649	0.5739	0.5827	0.5914	0.5999
800	0.6062	0.6125	0.6205	0.6284	0.6366	0.6447	0.6529	0.6611	0.6681	0.6750
900	0.6796	0.6864	0.6955	0.7005	0.7056	0.7092	0.7128	0.7077	0.7027	0.6855
1000	0.6597	0.6252	0.5639	0.5025	0.4332	0.3559	0.2785	0.2168	0.1707	0.1353
1100	0.1059									

Calibration with attenuator										
λ [nm]	00	10	20	30	40	50	60	70	80	90
300										
400	0.01471	0.01646	0.01836	0.02039	0.02183	0.02400	0.02688	0.02792	0.02796	0.02790
500	0.02821	0.02899	0.03017	0.03175	0.03392	0.03576	0.03727	0.03679	0.03589	0.03456
600	0.03552	0.03689	0.03868	0.03979	0.04042	0.04059	0.04250	0.04578	0.05045	0.05648
700	0.06252	0.06535	0.06818	0.06813	0.06749	0.06624	0.06465	0.06271	0.06072	0.05867
800	0.05654	0.05441	0.05251	0.05061	0.04897	0.04734	0.04585	0.04435	0.04293	0.04152
900	0.04008	0.03884	0.03780	0.03667	0.03554	0.03450	0.03347	0.03225	0.03102	0.02943
1000	0.02758	0.02546	0.02257	0.01967	0.01666	0.01353	0.01040	0.00795	0.00619	0.00486
1100	0.00377									

Instrument Uncertainty	
without attenuator	with attenuator
320 - 399 nm ± 6.0 %	400 - 899 nm ± 4.0 %
400 - 449 nm ± 2.0 %	900 - 1009 nm ± 5.0 %
450 - 809 nm ± 1.5 %	1010 - 1100 nm ± 7.5 %
810 - 899 nm ± 2.0 %	
900 - 1009 nm ± 4.0 %	
1010 - 1100 nm ± 7.5 %	

Ambient Temp.* : 21 °C Sensitivities under 320 nm are not traceable
 Relative Humidity* : 46 %

Test Equipment and Standards Used

ID#	Description	Serial#	Last Cal.	By	Certificate #
EOC-1018	Varian, CARY 5000, Spectrophotometer	UV0812M344	N/A	N/A	N/A
EOCE-916	Gentec-EO, PH100-SIUJ-WL, wattmeter	232413	Aug. 18, 2022	NRC-CNRC	PAR-2022-3909
EOCE-729	Gentec-EO, P-LINK USB, monitor	211671	Jun. 13, 2023	Gentec-EO	211671-230613
EOCE-731	Gentec-EO, P-LINK USB, monitor	213631	Jun. 13, 2023	Gentec-EO	213631-230613
EOCE-425	Keithley 220, programmable current source	0957404	Sep. 29, 2022	Transcat	884279

Declaration of Conformity

Gentec Electro-Optics certifies that, at the time of calibration, the above listed instrument meets or exceeds all specifications. It has been calibrated using standards traceable to the International System of Units (SI) through the National Institute of Standards and Technology (NIST), the National Research Council Canada (NRC) or other National Metrology Institutes. Calibration results relate only to the instrument being calibrated. Calibration activities are compliant to ISO 9001:2015 and ISO/IEC 17025:2017. Total expanded uncertainties are reported with a coverage factor k=2, providing a level of confidence of approximately 95%. Any statement of compliance is made without taking measurement uncertainty into account and is based on the instrument's specifications.

*Measurement not include in the scope of accreditation to ISO/IEC 17025:2017

Signature	Félix Chrétien Calibrated by	July 27, 2023 Date of Issue
Signature	Stephane Huot Quality Assurance	July 28, 2023 Date of Inspection

Variance Report

	Last Calibration	As Received	New Calibration
Date	September 23, 2021	July 14, 2023	July 26, 2023
Change without attenuator (% RMS)	-----	0.5%	0.8%
Change with attenuator (% RMS)	-----	0.4%	1.0%