



Conformity Review Certificate

Reference: Rudolph Research Analytical Polarimeter

Customer Name & Location	
Model Number	
Instrument Serial Number	
Date of Manufacture	

Please use this certificate as conformation that the instrument detailed above has passed all Rudolph Research Analytical internal quality control procedures and meets all published operational specifications as found in the relevant technical bulletin.

Upon inspection the aforementioned instrument met all performance and operation criteria according to the data contained within this notebook.

Accuracy, repeatability, and stability were verified with a Calibration Standard supplied by Rudolph Research Analytical and traceable to NIST. The NIST traceable certificate is available upon request.

RUDOLPH RESEARCH ANALYTICAL

Operator: (Print)		Operator: (Signature)		Date:	
Reviewer: (Print)		Reviewer: (Signature)		Date:	

Authorized Signatories are:

- Customer acceptance personnel for on-site installation / repair
- Rudolph Quality Control Personnel for Factory Service

Rudolph Research Analytical is an accredited Calibration Laboratory for Traceable Quartz Control Plates. Rudolph reserves the right to reject validating Polarimeter using other manufacturer's quartz plates which cannot demonstrate traceability to NIST or another National Metrology Laboratory.

If Customer measurement equipment, related to the instrument calibration (such as thermometer or quartz standard), is used by the Rudolph Research Technician during service as per Customer request, the customer is claiming full responsibility for acceptance of the recorded results. Rudolph is not liable for assuring measurement equipment's operating status as far as the period of validity is concerned.

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Service Performance Verification

CALIBRATION TEST 1

Traceable Quartz Plate Calibration Standard Serial No:	
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Instrument Measurement Data Quartz Correction: Uncorrected Corrected to 20°C

Wavelength (nm)	589 (°Arc)	546 (°Arc)	633 (°Arc)	436 (°Arc)	405 (°Arc)	365 (°Arc)	_____
QCP Value @ 20°C:							
Reading 1:							
Reading 2:							
Reading 3"							
Average:							
Pass/Fail:							

Wavelength (nm)	589 (°Z)	880 (°Z)	_____
QCP Value @ 20°C:			
Reading 1:			
Reading 2:			
Reading 3:			
Average:			
Pass/Fail:			

The following formula is used to calculate temperature correction for quartz control plates when measured on a Rudolph Research Analytical Autopol. Temperature correction calculation is done automatically on newer models.

$$\begin{aligned}
 \alpha_{QCP}^T &= \alpha_{QCP}^{20} / [1 - 0.000043(T - 20)], \\
 &= \alpha_{QCP} / \delta
 \end{aligned}$$



CALIBRATION TEST 2

Traceable Quartz Plate Calibration Standard Serial No:	
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Instrument Measurement Data Quartz Correction: Uncorrected Corrected to 20°C

Wavelength (nm)	589 (°Arc)	546 (°Arc)	633 (°Arc)	436 (°Arc)	405 (°Arc)	365 (°Arc)	_____
QCP Value @ 20°C:							
Reading 1:							
Reading 2:							
Reading 3"							
Average:							
Pass/Fail:							

Wavelength (nm)	589 (°Z)	880 (°Z)	_____
QCP Value @ 20°C:			
Reading 1:			
Reading 2:			
Reading 3:			
Average:			
Pass/Fail:			

The following formula is used to calculate temperature correction for quartz control plates when measured on a Rudolph Research Analytical Autopol. Temperature correction calculation is done automatically on newer models.

$$\begin{aligned}
 \alpha_{QCP}^T &= \alpha_{QCP}^{20} / [1 - 0.000043(T - 20)], \\
 &= \alpha_{QCP} / \delta
 \end{aligned}$$

CALIBRATION TEST 3

Traceable Quartz Plate Calibration Standard Serial No:	
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Instrument Measurement Data Quartz Correction: Uncorrected Corrected to 20°C

Wavelength (nm)	589 (°Arc)	546 (°Arc)	633 (°Arc)	436 (°Arc)	405 (°Arc)	365 (°Arc)	_____
QCP Value @ 20°C:							
Reading 1:							
Reading 2:							
Reading 3"							
Average:							
Pass/Fail:							

Wavelength (nm)	589 (°Z)	880 (°Z)	_____
QCP Value @ 20°C:			
Reading 1:			
Reading 2:			
Reading 3:			
Average:			
Pass/Fail:			

The following formula is used to calculate temperature correction for quartz control plates when measured on a Rudolph Research Analytical Autopol. Temperature correction calculation is done automatically on newer models.

$$\begin{aligned}
 \alpha_{QCP}^T &= \alpha_{QCP}^{20} / [1 - 0.000043(T - 20)], \\
 &= \alpha_{QCP} / \delta
 \end{aligned}$$



Temperature Measurement

This page is not applicable – No Temperature Display

Traceable Thermometer Serial No: _____ Date of Issue/In Service: _____

Column	A	B		C		D
Temperature Control Setting on Autopol (if applicable)	Autopol Temperature Display (°C)	NIST Thermometer Reading* (°C)		Difference Between Column A and B (°C)		Result Pass-Fail-N/A
		L	R or Single	L	R or Single	
20°C						
25°C						
Other						

Calculate the difference between recorded temperature from the Autopol display and the NIST thermometer reading. The difference must be less than or equal to \pm _____ °C. Stated further, all results in Column C should be equal to or less than \pm _____ °C. See applicable Technical Bulletin for Instrument specifications.

*If "Correction" is stated on Certificate, this value is recorded with correction value applied.