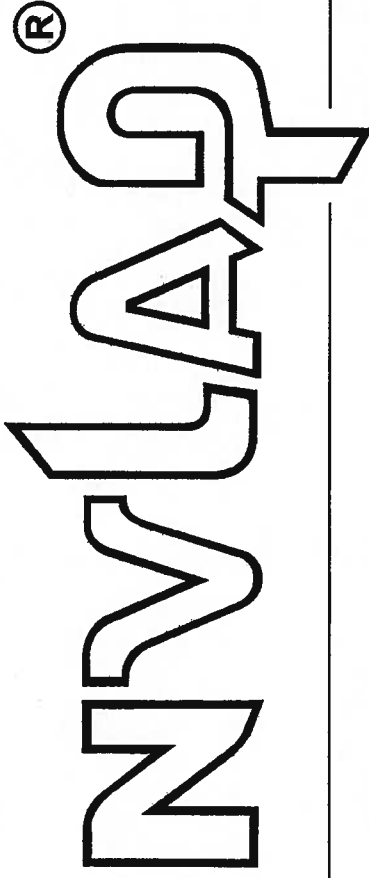


United States Department of Commerce
National Institute of Standards and Technology



Certificate of Accreditation to ISO/IEC 17025:2005

NVLAP LAB CODE: 200898-0

Rudolph Research Analytical Corporation
Hackettstown, NJ

is accredited by the National Voluntary Laboratory Accreditation Program for specific services,
listed on the Scope of Accreditation, for:

CALIBRATION LABORATORIES

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005.
This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality
management system (refer to joint ISO-ILAC-IAF Communiqué dated January 2009).

2011-04-01 through 2012-03-31

Effective dates



Dolly S. Bruce

For the National Institute of Standards and Technology



**National Voluntary
Laboratory Accreditation Program**



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

Rudolph Research Analytical Corporation

55 Newburgh Road
Hackettstown, NJ 07840

Mr. Richard Spanier

Phone: 973-584-1558 Fax: 973-584-5440

E-mail: rspanier@rudolphresearch.com

URL: <http://www.rudolphresearch.com>

CALIBRATION LABORATORIES

NVLAP LAB CODE 200898-0

DIMENSIONAL

NVLAP Code: 20/D19
Angle of Optical Rotation

Quartz Control Plates
Wavelength: 546.2771 nm

Range
-40° to 40°

Best Uncertainty (\pm)^{note 1}
0.002°

Remarks
Optical rotation values for
other wavelengths provided
in accordance with the
formula ICUMSA SPS-1

1. Represents an expanded uncertainty using a coverage factor, $k = 2$, at an approximate level of confidence of 95 %.

2011-04-01 through 2012-03-31

Effective dates

Dally S. Bruce

For the National Institute of Standards and Technology