



**nordion**  
SCIENCE ADVANCING HEALTH

**DOSIMETRY  
PRODUCTS & SERVICES**

2017 PRICE LIST



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SCIENCE ADVANCING HEALTH

## Dosimetry Products & Services

### Dosimetry and Calibration Products and Services

All prices are in Canadian Dollars.

Delivery for most items is 6 weeks subject to confirmation at time of order.

Nordion's Dosimetry Laboratory is accredited under NIST's National Voluntary Laboratory Accreditation Program (NVLAP) for the following services:

- The calibration of routine dosimeters against Ceric-Cerous or Alanine reference-standard dosimeters.
- The evaluation of Ceric-Cerous or Alanine reference-standard dosimeters.
- The irradiation of customer-supplied dosimeters to known doses.

A NVLAP Lab Code 200370-0 Certificate is provided with all accredited services.  
Refer to <http://ts.nist.gov/standards/scopes/ionra.htm>.





## Dosimetry and Calibration Services

### 1. Supply and Reading of Dosimeters

<b>NUMBER</b>	<b>DESCRIPTION</b>	<b>PRICE</b>
10009991	<b>Supply and Reading of High Dose Range Ceric-Cerous Dosimeters</b>	\$370.00 per dosimeter
	<p>Includes:</p> <ul style="list-style-type: none"><li>– Supply and reading of each dosimeter</li><li>– NVLAP Lab Code 200370-0 Certificate of Measurement (Ceric-Cerous measured dose)</li><li>– Standard Control package (shipped with package for QC)</li></ul>	
	<p>Note:</p> <ul style="list-style-type: none"><li>– Minimum order: 7 dosimeters</li><li>– Dose range: 5 to 50 kGy</li><li>– This measurement service by Nordion is accredited under NIST's NVLAP Lab Code 200370-0</li></ul>	
10094113	<b>Supply and Reading of Alanine Dosimeters</b>	\$370.00 per dosimeter
	<p>Includes:</p> <ul style="list-style-type: none"><li>– Supply and reading of each dosimeter</li><li>– NVLAP Lab Code 200370-0 Certificate of Measurement (Alanine measured dose)</li><li>– Standard Control package (shipped with package for QC)</li></ul>	
	<p>Note:</p> <ul style="list-style-type: none"><li>– Minimum order: 7 dosimeters</li><li>– Dose range: 20 Gy to 80 kGy</li><li>– This measurement service by Nordion is accredited under NIST's NVLAP Lab Code 200370-0</li></ul>	



## Dosimetry and Calibration Services

### 2. Irradiation of Dosimeters

<b>NUMBER</b>	<b>DESCRIPTION</b>	<b>PRICE</b>
10009995	<b>Irradiation of Dosimeters</b>	\$735.00 per dose point
	<p>Includes:</p> <ul style="list-style-type: none"><li>– Irradiation of dosimeters (e.g. Harwell, Alanine in pellet or film format, Red Perspex, Amber Perspex, FWT-60 radiochromic film, Optichromic) to specified absorbed doses in Nordion’s standard cobalt 60 radiation field GC220 at a customer-specified constant temperature</li><li>– NVLAP Lab Code 200370-0 Certificate of Accuracy supplied with return of dosimeters to customer</li></ul>	
	<p>Customer to specify:</p> <ul style="list-style-type: none"><li>– Number of dose points</li><li>– Number of dosimeters (maximum 10) for each dose point</li><li>– Irradiation temperature in degrees C</li></ul>	
	<p>Note:</p> <ul style="list-style-type: none"><li>– Specified doses up to 250 kGy</li><li>– Specified irradiation temperature to be between +4°C and +60°C</li><li>– Each dosimeter must fit into a 12mm (0.5 inches) diameter cylinder with maximum height of 75mm (3 inches)</li><li>– This irradiation service by Nordion is accredited under NIST’s NVLAP Lab Code 200370-0</li></ul>	



## Dosimetry and Calibration Services

### 3. In-Plant Calibration

NUMBER	DESCRIPTION	PRICE
10009996	<b>Routine Dosimetry System In Plant Calibration Service – High Dose Dosimeters – Ceric-Cerous</b>	\$6,485.00 per batch of dosimeters
	<b>Includes:</b> <ul style="list-style-type: none"><li>– Supply of 10 Calibration packages, each package containing 2 high-dose Ceric-Cerous dosimeters and 1 temperature strip for measurement of maximum irradiation temperature</li><li>– Standard Control Package (for Nordion QC)</li><li>– Determination of calibration curve for routine dosimetry system for 1 spectrophotometer</li><li>– NVLAP Lab Code 200370-0 Certificate of Calibration for the routine dosimetry system</li><li>– NVLAP Lab Code 200370-0 Certificate of Measurement (Ceric-Cerous measured dose)</li></ul>	
	<b>Plus:</b> <ul style="list-style-type: none"><li>– Review of readings obtained by customer for the irradiated routine dosimeters</li><li>– Analysis of dosimetry data</li></ul>	
	<b>Note:</b> <ul style="list-style-type: none"><li>– Temperature range between 10°C and 60°C</li><li>– This calibration service by Nordion is accredited under NIST’s NVLAP Lab Code 200370-0</li></ul>	
10094114	<b>Routine Dosimetry System In Plant Calibration Service – Alanine Dosimeters</b>	\$6,485.00 per batch of dosimeters
	<b>Includes:</b> <ul style="list-style-type: none"><li>– Supply of 10 Calibration packages, each package containing 2 high-dose Alanine dosimeters and 1 temperature strip for measurement of maximum irradiation temperature</li><li>– Standard Control Package (for Nordion QC)</li><li>– Determination of calibration curve for routine dosimetry system for 1 spectrophotometer</li><li>– NVLAP Lab Code 200370-0 Certificate of Calibration for the routine dosimetry system</li><li>– NVLAP Lab Code 200370-0 Certificate of Measurement (Alanine measured dose)</li></ul>	
	<b>Plus:</b> <ul style="list-style-type: none"><li>– Review of readings obtained by customer for the irradiated routine dosimeters</li><li>– Analysis of dosimetry data</li></ul>	
	<b>Note:</b> <ul style="list-style-type: none"><li>– Temperature range between 10°C and 60°C</li><li>– This calibration service by Nordion is accredited under NIST’s NVLAP Lab Code 200370-0</li></ul>	



## Dosimetry and Calibration Services

### 4. Additional In-Plant Calibration

<b>NUMBER</b>	<b>DESCRIPTION</b>	<b>PRICE</b>
10009997	<b>Additional In-Plant Calibrations – In-Plant Calibration Service</b>	\$1,630.00 per additional calibration curve
	Includes: – Supply of one additional calibration curve	
	Note: – This service is additional to Routine Dosimetry System In Plant Calibration Service – This calibration service by Nordion is accredited under NIST’s NVLAP Lab Code 200370-0	



## Dosimetry and Calibration Services

### 5. Absorbed Dose Mapping

NUMBER	DESCRIPTION	PRICE
10093660	<b>Absorbed Dose Mapping for a Production Irradiator – Ceric-Cerous</b>	\$16,225.00*
	<p>Includes:</p> <ul style="list-style-type: none"><li>– Dose mapping service for 1 production irradiator using 1 batch of customer supplied routine dosimeters, read on a maximum of 2 spectrophotometers</li><li>– Nordion will provide procedures for performing absorbed dose mapping</li><li>– Dosimeter packages consisting of Ceric-Cerous dosimeters and temperature strips (the customer adds 4 routine dosimeters)</li><li>– Analysis of customer’s routine dosimeter readings done at the customer’s site by customer’s technicians</li><li>– Dosimetry Report prepared by Nordion</li></ul>	
	<p><b>Additional Customer Responsibilities:</b></p> <ul style="list-style-type: none"><li>– Provide all routine dosimeters</li><li>– Provide phantom material or homogeneous actual product which occupies the design limit of the carrier (or close to the design limit)</li><li>– Ensure that dosimetry can be done on a schedule that is agreed to by Nordion.</li><li>– Ensure availability of sufficient resources for loading product, operating the irradiator, and loading/retrieving dosimeters</li></ul>	
	<p><b>Note:</b></p> <ul style="list-style-type: none"><li>– This dose mapping service by Nordion is accredited under NIST’s NVLAP Lab Code 200370-0</li></ul>	
10094112	<b>Absorbed Dose Mapping for a Production Irradiator – Alanine</b>	\$16,225.00*
	<p>Includes:</p> <ul style="list-style-type: none"><li>– Dose mapping service for 1 production irradiator using 1 batch of customer supplied routine dosimeters, read on a maximum of 2 spectrophotometers</li><li>– Nordion will provide procedures for performing absorbed dose mapping</li><li>– Dosimeter packages consisting of Alanine dosimeters and temperature strips (the customer adds 4 routine dosimeters)</li><li>– Analysis of customer’s routine dosimeter readings done at the customer’s site by customer’s technicians</li><li>– Dosimetry Report prepared by Nordion</li></ul>	
	<p><b>Additional Customer Responsibilities:</b></p> <ul style="list-style-type: none"><li>– Provide all routine dosimeters</li><li>– Provide phantom material or homogeneous actual product which occupies the design limit of the carrier (or close to the design limit)</li><li>– Ensure that dosimetry can be done on a schedule that is agreed to by Nordion</li><li>– Ensure availability of sufficient resources for loading product, operating the irradiator, and loading/retrieving dosimeters</li></ul>	
	<p><b>Note:</b></p> <ul style="list-style-type: none"><li>– This dose mapping service by Nordion is accredited under NIST’s NVLAP Lab Code 200370-0</li></ul>	

\*Per absorbed dose mapping service (if performed in conjunction with a source loading). Expenses charged as incurred if not performed with a source loading.



## Dosimetry and Calibration Products

### 1. Compu-dose System

<b>NUMBER</b>	<b>DESCRIPTION</b>	<b>PRICE</b>
10009980	<b>Compu-Dose System</b>  Includes: – Electrochemical Cell – Multimeter (3M052526) – 500 High Dose Range (5 to 50 kGy) Ceric-Cerous dosimeters (including 30 irradiated standards: 10@ 15, 10 @ 25, 10 @ 35 kGy) – Compu-Dose Manual (IN/OM 0312 CDOSE) – Certificate of Calibration (for Ceric-Cerous batch) – Certificate of Accuracy (for Ceric-Cerous irradiated standards) – Electrochemical Cell Set-up Instructions and Certificate of Acceptance – Compu-dose software, PC software including data set for converting multimeter readings to dose (kGy)	\$17,535.00
	Note: – Special order standards available at extra cost (refer to 10009983)	
10094115	<b>Compu-Dose Software</b>  Includes: – Software on USB memory stick (includes data set for converting multimeter reading to dose – kGy) – Certificate of validation	\$4,095.00
H101402001	<b>Replacement Electrochemical Cell</b>  Includes: – Compu-Dose glass cell	\$5,250.00





## Dosimetry and Calibration Products

### 2. Ceric-Cerous Dosimeters

<b>NUMBER</b>	<b>DESCRIPTION</b>	<b>PRICE</b>
10009982	<b>High Dose Range (5 to 50 kGy) Ceric-Cerous Dosimeters</b>	\$1,180.00 per 100
	<b>Includes:</b> <ul style="list-style-type: none"><li>– 100 high dose range dosimeters (including 6 irradiated standards: 2 @ 15, 2 @ 25, 2 @ 35 kGy)</li><li>– Data Set for converting multimeter readings to dose (kGy)</li><li>– NVLAP Lab Code 200370-0 Certificate of Calibration (for Ceric-Cerous batch)</li><li>– NVLAP Lab Code 200370-0 Certificate of Accuracy (for Ceric-Cerous irradiated standards)</li></ul>	
	<b>Note:</b> <ul style="list-style-type: none"><li>– Special order standards available at extra cost (refer to 10009983)</li></ul>	

### 3. Irradiation Standards

<b>NUMBER</b>	<b>DESCRIPTION</b>	<b>PRICE</b>
10009983	<b>High Dose Range (5 to 50 kGy) Ceric-Cerous</b>	\$895.00 per batch of 10 standards
	<b>Includes:</b> <ul style="list-style-type: none"><li>– 10 dosimeters at 1 dose level as specified by customer</li></ul>	
	<b>Note:</b> <ul style="list-style-type: none"><li>– Nordion manufactures new batches as required and therefore cannot guarantee availability of a specific batch</li><li>– Certificate of accuracy</li></ul>	

**Please note:**

1. LR CCD products have been discontinued.
2. Transfer standards using Alanine may be substituted for SUPPLY AND READING OF DOSIMETERS and for IN-PLANT CALIBRATIONS.



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Nordion's products and services are used throughout the world to prevent, diagnose and treat disease. Our applied research and innovation play an integral part in improving global healthcare.

[www.nordion.com](http://www.nordion.com)

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