



nordion
SCIENCE ADVANCING HEALTH

**DOSIMETRY
PRODUCTS & SERVICES**

PRICE LIST



nordion
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 recognized 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.

Accredited services are identified with this logo.
Refer to <http://ts.nist.gov/standards/scopes/ionra.htm>.





Dosimetry and Calibration Services

1. Supply and Reading of Dosimeters

NUMBER	DESCRIPTION	PRICE
10009989	Supply and Reading of Low Dose Range Ceric-Cerous Dosimeters	\$320.00 per dosimeter
NVLAP	<p>Includes:</p> <ul style="list-style-type: none">– Supply and reading of each dosimeter– NVLAP Certificate of Measurement (Ceric-Cerous measured dose)– Standard Control package (shipped with package for QC) <p>Note:</p> <ul style="list-style-type: none">– Minimum order: 7 dosimeters– Dose range: 0.5 to 6 kGy– This measurement service by Nordion is recognized under NIST’s NVLAP (Nordion Lab Code 200370)	
10009991	Supply and Reading of High Dose Range Ceric-Cerous Dosimeters	\$320.00 per dosimeter
NVLAP	<p>Includes:</p> <ul style="list-style-type: none">– Supply and reading of each dosimeter– NVLAP Certificate of Measurement (Ceric-Cerous measured dose)– Standard Control package (shipped with package for QC) <p>Note:</p> <ul style="list-style-type: none">– Minimum order: 7 dosimeters– Dose range: 5 to 50 kGy– This measurement service by Nordion is recognized under NIST’s NVLAP (Nordion Lab Code 200370)	
10094113	Supply and Reading of Alanine Dosimeters	\$320.00 per dosimeter
NVLAP	<p>Includes:</p> <ul style="list-style-type: none">– Supply and reading of each dosimeter– NVLAP Certificate of Measurement (Alanine measured dose)– Standard Control package (shipped with package for QC) <p>Note:</p> <ul style="list-style-type: none">– Minimum order: 7 dosimeters– Dose range: 20 Gy to 80 kGy– This measurement service by Nordion is recognized under NIST’s NVLAP (Nordion Lab Code 200370)	



Dosimetry and Calibration Services

2. Irradiation of Dosimeters

NUMBER	DESCRIPTION	PRICE
10009995	Irradiation of Dosimeters	\$630.00 per dose point
NVLAP [®]	<p>Includes:</p> <ul style="list-style-type: none">– 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.– NVLAP Certificate of Accuracy supplied with return of dosimeters to customer. <p>Customer to specify:</p> <ul style="list-style-type: none">– Number of dose points– Number of dosimeters (maximum 10) for each dose point– Irradiation temperature in degrees C <p>Note:</p> <ul style="list-style-type: none">– Specified doses up to 250 kGy– Specified irradiation temperature to be between +4°C and +60°C.– Each dosimeter must fit into a 12mm (0.5 inches) diameter cylinder with maximum height of 75mm (3 inches)– This irradiation service by Nordion is recognized under NIST’s NVLAP (Nordion lab Code 200370)	



Dosimetry and Calibration Services

3. In-Plant Calibration

NUMBER	DESCRIPTION	PRICE
10009996	Routine Dosimetry System In Plant Calibration Service – High Dose Dosimeters – Ceric-Cerous	\$5,540.00 per batch of dosimeters
NVLAP [®]	<p>Includes:</p> <ul style="list-style-type: none">– Supply of 10 Calibration packages, each package containing 2 high-dose Ceric-Cerous dosimeters and 1 temperature strip for measurement of maximum irradiation temperature– Standard Control Package (for Nordion QC)– Determination of calibration curve for routine dosimetry system for 1 spectrophotometer– NVLAP Certificate of Calibration for the routine dosimetry system– NVLAP Certificate of Measurement (Ceric-Cerous measured dose) <p>Plus:</p> <ul style="list-style-type: none">– Review of readings obtained by customer for the irradiated routine dosimeters– Analysis of dosimetry data <p>Note:</p> <ul style="list-style-type: none">– This calibration service by Nordion is recognized under NIST’s NVLAP (Nordion Lab Code 200370)	
10009998	Routine Dosimetry System In Plant Calibration Service – Low Dose Dosimeters – Ceric-Cerous	\$5,540.00 per batch of dosimeters
NVLAP [®]	<p>Includes:</p> <ul style="list-style-type: none">– 10 Calibration packages; each package contains 2 low-dose Ceric-Cerous dosimeters and 1 temperature strip for measurement of maximum irradiation temperature– Standard Control Package (for Nordion QC)– Reading of dosimeters after return to Nordion– Determination of calibration curve for routine dosimetry system for 1 spectrophotometer– NVLAP Certificate of Calibration for the routine dosimetry system– NVLAP Certificate of Measurement (Ceric-Cerous measured dose) <p>Plus:</p> <ul style="list-style-type: none">– Review of readings obtained by customer for the irradiated routine dosimeters– Analysis of dosimetry data <p>Note:</p> <ul style="list-style-type: none">– This calibration service by Nordion is recognized under NIST’s NVLAP (Nordion Lab Code 200370)	



Dosimetry and Calibration Services

NUMBER	DESCRIPTION	PRICE
10094111	Routine Dosimetry System In Plant Calibration Service – Low Range and High Range Dose Dosimeters (0.5 to 50 kGy) – Ceric-Cerous	\$5,540.00 per batch of dosimeters
NVLAP [®]	<p>Includes:</p> <ul style="list-style-type: none">– 7 Calibration packages; each package contains 2 high-dose Ceric-Cerous dosimeters and 1 temperature strip for measurement of maximum irradiation temperature– 3 Calibration packages; each package contains 2 low-dose Ceric-Cerous dosimeters and 1 temperature strip for measurement of maximum irradiation temperature– 2 spare packages (1 low-dose and 1 high-dose Ceric-Cerous dosimeters)– Standard Control Packages (for Nordion QC)– Determination of calibration curve for routine dosimetry system for 1 spectrophotometer– NVLAP Certificate of Calibration for the routine dosimetry system– NVLAP Certificate of Measurement (Ceric-Cerous measured dose) <p>Plus:</p> <ul style="list-style-type: none">– Review of readings obtained by customer for the irradiated routine dosimeters– Analysis of dosimetry data <p>Note:</p> <ul style="list-style-type: none">– This calibration service by Nordion is recognized under NIST’s NVLAP (Nordion Lab Code 200370)	
10094114	Routine Dosimetry System In Plant Calibration Service – Alanine Dosimeters	\$5,540.00 per batch of dosimeters
NVLAP [®]	<p>Includes:</p> <ul style="list-style-type: none">– Supply of 10 Calibration packages, each package containing 2 high-dose Alanine dosimeters and 1 temperature strip for measurement of maximum irradiation temperature– Standard Control Package (for Nordion QC)– Determination of calibration curve for routine dosimetry system for 1 spectrophotometer– NVLAP Certificate of Calibration for the routine dosimetry system– NVLAP Certificate of Measurement (Alanine measured dose) <p>Plus:</p> <ul style="list-style-type: none">– Review of readings obtained by customer for the irradiated routine dosimeters– Analysis of dosimetry data <p>Note:</p> <ul style="list-style-type: none">– This calibration service by Nordion is recognized under NIST’s NVLAP (Nordion Lab Code 200370)	



Dosimetry and Calibration Services

4. Additional Spectrophotometer Calibration

NUMBER	DESCRIPTION	PRICE
10009997	Additional Spectrophotometer Calibrations – In-Plant Calibration Service	\$1,390.00 per additional calibration curve
NVLAP [®]	<p>Includes:</p> <ul style="list-style-type: none">– Supply of each additional calibration curve for 1 additional spectrophotometer. <hr/> <p>Note:</p> <ul style="list-style-type: none">– This service is additional to Routine Dosimetry System In Plant Calibration Service– This calibration service by Nordion is recognized under NIST's NVLAP (Nordion Lab Code 200370)	



Dosimetry and Calibration Services

5. Absorbed Dose Mapping

NUMBER	DESCRIPTION	PRICE
10093660	Absorbed Dose Mapping for a Production Irradiator – Ceric-Cerous	\$13,860.00*
NVLAP [®]	<p>Includes:</p> <ul style="list-style-type: none"> – Dose mapping service for 1 production irradiator using 1 batch of customer supplied routine dosimeters, read on a maximum of 2 spectrophotometers – Nordion will provide procedures for performing absorbed dose mapping. – Dosimeter packages consisting of Ceric-Cerous dosimeters and temperature strips (the customer adds 4 routine dosimeters). – Analysis of customer’s routine dosimeter readings done at the customer’s site by customer’s technicians. – Dosimetry Report prepared by Nordion <hr/> <p>Additional Customer Responsibilities:</p> <ul style="list-style-type: none"> – Provide all routine dosimeters – Provide phantom material or homogeneous actual product which occupies the design limit of the carrier (or close to the design limit). – Ensure that dosimetry can be done on a schedule that is agreed to by Nordion. – Ensure availability of sufficient resources for loading product, operating the irradiator, and loading/retrieving dosimeters. <hr/> <p>Note:</p> <ul style="list-style-type: none"> – This dose mapping service by Nordion is recognized under NIST’s NVLAP (Nordion Lab Code 200370) 	
1009412	Absorbed Dose Mapping for a Production Irradiator – Alanine	\$13,860.00*
NVLAP [®]	<p>Includes:</p> <ul style="list-style-type: none"> – Dose mapping service for 1 production irradiator using 1 batch of customer supplied routine dosimeters, read on a maximum of 2 spectrophotometers – Nordion will provide procedures for performing absorbed dose mapping. – Dosimeter packages consisting of Alanine dosimeters and temperature strips (the customer adds 4 routine dosimeters). – Analysis of customer’s routine dosimeter readings done at the customer’s site by customer’s technicians. – Dosimetry Report prepared by Nordion <hr/> <p>Additional Customer Responsibilities:</p> <ul style="list-style-type: none"> – Provide all routine dosimeters – Provide phantom material or homogeneous actual product which occupies the design limit of the carrier (or close to the design limit). – Ensure that dosimetry can be done on a schedule that is agreed to by Nordion. – Ensure availability of sufficient resources for loading product, operating the irradiator, and loading/retrieving dosimeters. <hr/> <p>Note:</p> <ul style="list-style-type: none"> – This dose mapping service by Nordion is recognized under NIST’s NVLAP (Nordion Lab Code 200370) 	

*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

NUMBER	DESCRIPTION	PRICE
10009980	Compu-Dose System	\$15,000.00
	Includes: <ul style="list-style-type: none">– 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	
	Note: <ul style="list-style-type: none">– Special order standards available at extra cost (refer to 10009983)	
10094115	Compu-Dose Software	\$3,500.00
	Includes: <ul style="list-style-type: none">– Software on CD (includes data set for converting multimeter reading to dose - kGy)	
H101402001	Replacement Electrochemical Cell	\$4,500.00
	Includes: <ul style="list-style-type: none">– Compu-Dose glass cell	



Dosimetry and Calibration Products

2. Ceric-Cerous Dosimeters

NUMBER	DESCRIPTION	PRICE
10009982	High Dose Range (5 to 50 kGy) Ceric-Cerous Dosimeters	\$1020.00 per 100
NVLAP [®]	<p>Includes:</p> <ul style="list-style-type: none">– 100 high dose range dosimeters (including 6 irradiated standards: 2 @ 15, 2 @ 25, 2 @ 35 kGy)– Data Set for converting multimeter readings to dose (kGy)– NVLAP Certificate of Calibration (for Ceric-Cerous batch)– NVLAP Certificate of Accuracy (for Ceric-Cerous irradiated standards) <p>Note:</p> <ul style="list-style-type: none">– Special order standards available at extra cost (refer to 10009983)	
10009984	Low Dose Range (0.5 to 6 kGy) Ceric-Cerous Dosimeters	\$1020.00 per 100
NVLAP [®]	<p>Includes:</p> <ul style="list-style-type: none">– 100 low dose range dosimeters including 6 irradiated standards (2 @ 1, 2 @ 3, 2 @ 5 kGy)– NVLAP Certificate of Accuracy (for Ceric-Cerous irradiated standards) <p>Note:</p> <ul style="list-style-type: none">– Special order standards available at extra cost (refer to 10009985)– The customer is responsible for determining their own calibration curve to convert multimeter readings to dose. Guidance is found in the Compu-Dose Operator's Manual IN/OM 0312 CDOSE.	



Dosimetry and Calibration Products

3. Irradiation Standards

NUMBER	DESCRIPTION	PRICE
10009983	High Dose Range (5 to 50 kGy) Ceric-Cerous	\$760.00 per batch of 10 standards
	Includes: – 10 dosimeters at 1 dose level as specified by customer	
	Note: – Nordion manufactures new batches as required and therefore cannot guarantee availability of a specific batch	
10009985	Low Dose Range (0.5 to 6 kGy) Ceric-Cerous	\$760.00 per batch of 10 standards
	Includes: – 10 dosimeters at 1 dose level as specified by customer	
	Note: – Nordion manufactures new batches as required and therefore cannot guarantee availability of a specific batch	



Dosimetry and Calibration Products

4. Calibration Standards

NUMBER	DESCRIPTION	PRICE
10009986	Irradiated Standards (Low-Dose CC) for Generating the Calibration Curve	\$630.00
NVLAP [®]	<p>Includes:</p> <ul style="list-style-type: none">– 35 irradiated standards for determination of response function (5 each at 7 nominal dose levels: 0.5, 1, 2, 3, 4, 5, 6 kGy per dosimeter batch)– NVLAP Certificate of Accuracy (for Ceric-Cerous irradiated standards) <p>Note:</p> <ul style="list-style-type: none">– For customers who need to establish a calibration curve based on Nordion irradiated standards– Special order standards available at extra cost (refer to 10009985)	

Please note:

1. READING OF CUSTOMER SUPPLIED DOSIMETERS has been discontinued. However, Nordion can supply and read HR and LR CCDs.
2. Supply and reading of Fricke Dosimeters has been transferred to Best Theratronics Ltd.
3. We will be implementing a service for Alanine dosimeters in the 10 Gy to 100kGy+ range. (Implementation date to be announced)



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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.

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