

SCOPE OF ACCREDITATION TO
ISO 17025:2005 AND ANSI N42.22-1995
HEALTH PHYSICS SOCIETY

ECKERT AND ZIEGLER ANALYTICS
1380 Seaboard Industrial Boulevard NW
Atlanta, GA 30318-2825

Laboratory Manager: Dr. Daniel M. Montgomery

Phone: 404-352-8677

PRODUCTION OF NIST-TRACEABLE RADIOACTIVITY SOURCES

Valid To: April 30, 2013

Certificate Number: C2009-01

In recognition of the successful completion of the HPS evaluation process, accreditation is granted to this laboratory to perform the following source calibrations:

Class	Sources (radionuclides)	Emission Rate or Activity Range ¹	Calibration or Standardization Method
NIST-traceable solutions, solids, and gases. Gamma and X-ray emitters:	Gamma-ray mixtures with photon energies from 30 keV to 2,000 keV	0.37 Bq to 370 MBq	Gamma-ray Spectroscopy
	Single gamma-ray emitters with photon energies from 30 keV to 2,000 keV	0.37 Bq to 3.7 MBq	Ionization Chamber
	X-ray emitters	0.37 Bq to 3.7 MBq	Liquid Scintillation
	Single or mixed gases, Xe-133, Xe-127, Kr-85	3.7 kBq to 7.4 GBq	Ion Chamber or Gamma-ray Spectrometry
NIST-traceable solutions, solids, and electrodeposited sources. Alpha- or beta- emitting radionuclides:	Beta emitters, liquid, maximum beta energy < 500 keV	0.37 Bq to 370 MBq	Liquid Scintillation Quench Curve
	Pure beta emitters, liquid, Z=1 to Z=94, maximum beta energy < 500 keV	0.37 Bq to 370 MBq	Liquid Scintillation CIEMAT/NIST ³ H efficiency tracing
	Beta emitters, liquid, maximum beta energy > 500 keV	0.37 Bq to 370 MBq	Liquid Scintillation 4-π
	Beta emitters – electrodeposited, and evaporated on PET	100 beta/sec to 1.0×10 ⁴ beta/sec	2-π plastic scintillation counting
	Alpha emitters electrodeposited, and evaporated on PET	0.17 Bq to 5 kBq	2-π ZnS & alpha spectroscopy
	Alpha emitters, liquid	0.37 Bq to 370 MBq	Liquid Scintillation 4-π

¹ The uncertainties reported for each type of standard must be supported by measurement assurance activities with NIST and be in accordance with EZA Procedure, ANA-QA-06, "Calculation of Uncertainties for Standards."