

# Eckert & Ziegler CNL Scientific Resources

Product Information

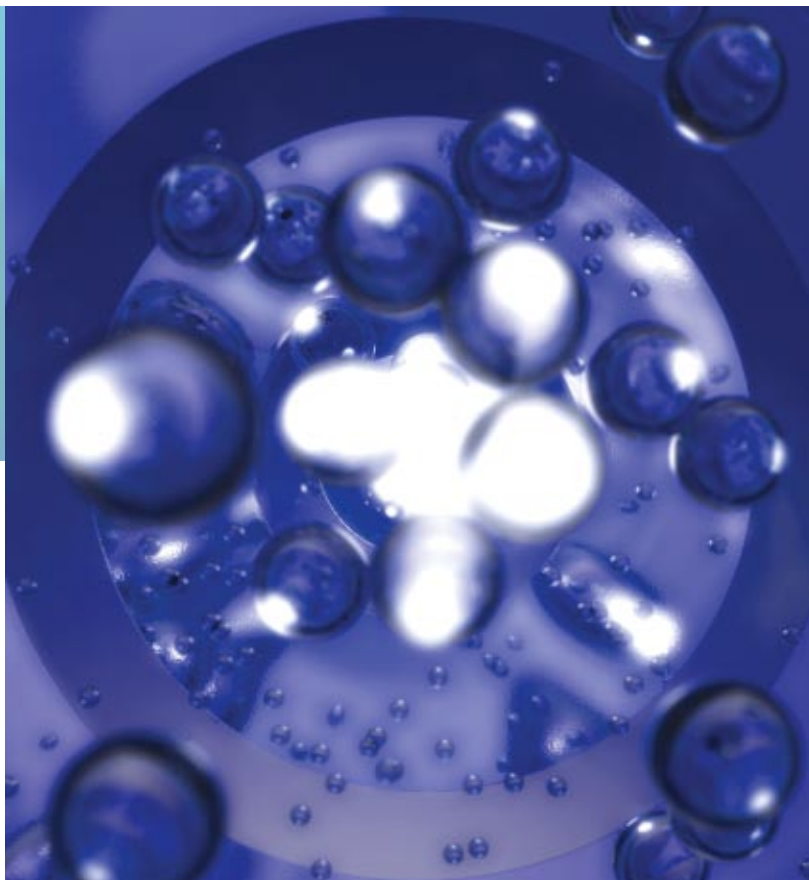


 Eckert & Ziegler

CNL Scientific Resources

# Introduction

Eckert & Ziegler CNL Scientific Resources Products



Since 1993, Eckert & Ziegler CNL Scientific Resources has been the trusted supplier of isotopes and engineered materials to the world's leading manufacturers of medical devices, radiopharmaceuticals, scientific instruments, industrial sources and calibration standards. Today, the company distributes one of the largest volumes of bulk isotopes in North America. CNLSR's product catalogue features nearly 100 accelerator and reactor grade radionuclides.

Working closely with its manufacturers, Eckert & Ziegler CNL Scientific Resources is able to offer customers a broad array of materials with technical characteristics tailored for the customer's specific requirements.

# Products

## Reactor-Produced & Cyclotron-Produced Radioisotopes

### Reactor-Produced Radioisotopes

Americium	241, 242, 243
Actinium	225
Barium	133
Berkelium	249
Cadmium	109
Cesium	137
Californium	249, 252
Carbon	14
Cerium	144
Chromium	51
Cobalt	58, 60
Curium	244, 248
Gadolinium	153
Hydrogen	3
Iodine	124, 125, 129, 131
Iridium	192
Iron	55, 59
Krypton	78, 85
Manganese	54
Molybdenum	99
Neptunium	237
Nickel	63
Phosphorus	32, 33
Plutonium	238, 242
Polonium	210
Promethium	147
Radium	226
Ruthenium	103, 106
Strontium	89, 90
Sulphur	35
Technetium	99
Thallium	228
Thorium	203
Tin	113, 119
Tungsten	188
Uranium	232, 236
Xenon	127, 133
Ytterbium	168
Yttrium	90



### Cyclotron-Produced Radioisotopes

Beryllium	7
Bismuth	207
Cadmium	109
Cerium	139
Cobalt	56, 57, 58
Gallium	67
Germanium	68
Gold	195
Indium	111
Iron	55
Palladium	103
Sodium	22
Strontium	85
Thallium	201
Titanium	44
Tungsten	181
Yttrium	88
Zinc	65

# Products

## Stable Isotopes & Uranium Isotopic Certified Reference Materials

### Stable Isotopes

Antimony	121, 123
Barium	130, 134, 135, 136, 137, 138
Cadmium	106, 108, 110, 111, 112, 113, 114, 116
Calcium	40, 42, 43, 44, 46, 48
Carbon	13
Cerium	136, 138, 140
Chromium	50, 52, 53, 54
Copper	63, 65
Deuterium	2
Dysprosium	158, 160, 161, 162, 163, 164
Erbium	162, 164, 166, 167, 168, 170
Europium	151, 153
Gadolinium	152, 154, 155, 156, 157, 158, 160
Gallium	69, 71
Germanium	70, 72, 73, 74, 76
Hafnium	174, 176, 177, 178, 179, 180
Helium Gas	3
Indium	113, 115
Iron	54, 56, 57, 58
Krypton	78, 80, 82, 83, 84, 86
Lanthanum	139
Lead	204, 206, 207, 208
Lithium	6, 7
Lutetium	170, 171, 172, 173, 174, 175, 176
Magnesium	24, 25, 26
Mercury	196, 200, 202
Molybdenum	92, 94, 95, 96, 97, 98, 100
Neodymium	142, 143, 144, 145, 146, 148, 150
Nickel	58, 60, 61, 62, 64
Nitrogen	15
Osmium	184, 186, 187, 188, 189, 190, 192
Oxygen - Water	18 (95-99% enrichment)
Palladium	104, 105, 106, 108
Platinum	190, 194, 195
Potassium	39, 40, 41
Rhenium	185, 187
Rubidium	85, 87
Ruthenium	104

### Stable Isotopes, cont.

Samarium	144, 147, 148, 149, 150, 152, 154
Selenium	74, 76, 77, 78, 80, 82
Silicon	28, 29, 30
Silver	107, 109
Strontium	84, 86, 87, 88
Sulphur	32, 33, 34, 36
Tellurium	120, 122, 123, 124, 125, 126, 128, 130
Thallium	203, 205
Tin	112, 114-120, 122, 124
Titanium	47, 48, 49
Tungsten	180, 182, 183, 184, 186
Vanadium	50, 51
Xenon	124, 126, 128-132, 134, 136
Ytterbium	168, 170, 171, 172, 173, 174, 175
Zinc / Depleted	64, 66, 67, 68, 70
Zinc	64, 66, 67, 68, 70
Zirconium	90, 91, 92, 94, 96



### Uranium Isotopic Certified Reference Materials

U - 234
U - 235
U - 236
U - 238

# Products

Radionuclide Sources, Mössbauer Sources, Generators & Labelled Compounds

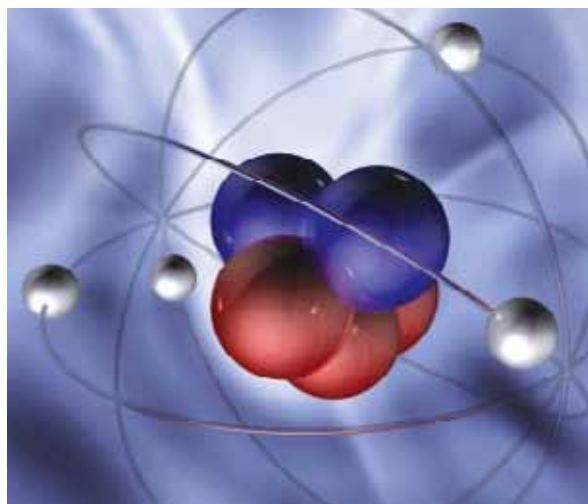
## Radionuclide Sources

Sodium-22	Gamma
Chromium-51	Neutron
Iron-55	X-ray
Cobalt-57	X-ray, Gamma
Cobalt-60	Gamma
Germanium-68	Gamma
Selenium-75	Gamma
Strontium-90	Gamma
Cadmium-109	X-ray, gamma
Cesium-137	Gamma
Gadolinium-153	Gamma
Ytterbium-169	Gamma
Thulium-170	Gamma
Iridium-192	Gamma
Americium-241	Gamma
Americium-241 / Beryllium	Neutron
Curium-244	Alpha
Californium-252	Neutron

Additional sealed sources are available from affiliated Eckert & Ziegler companies. Please direct inquiries to CNL Scientific Resources.

## Mössbauer Sources

Cobalt-57	Rh, Pd, Pt, Cr, Cu
Tin-119m	CaSnO <sub>3</sub>

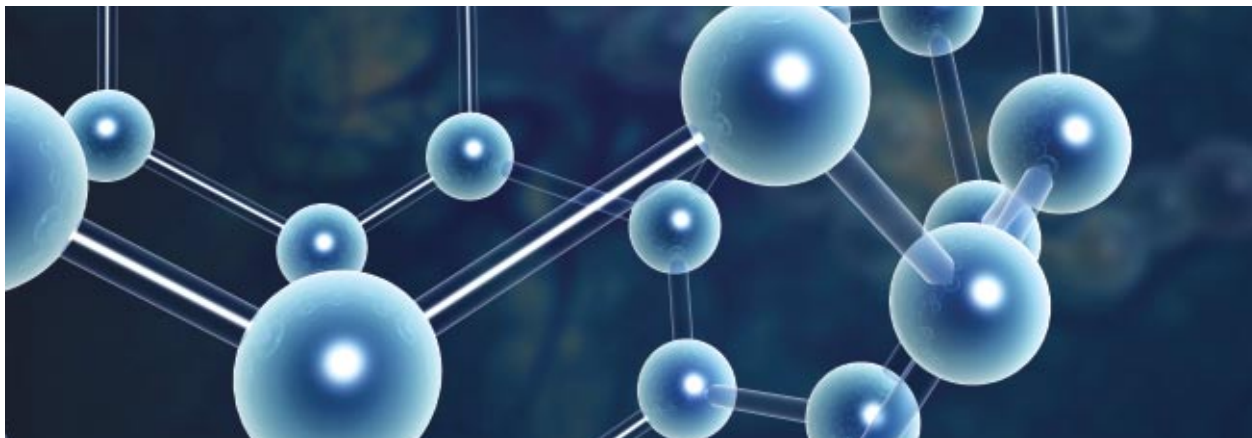


## Generators

Ge-68 / Ga-68
Mo-99 / Tc-99M
Sn-113 / In-113N
W-188 / Re-188

## Labelled Compounds

Deuterium	2
Tritium	3
Carbon	14
Phosphorus	32, 33
Sulphur	35
Iodine	125, 131



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