

Stable and Radioactive Isotopes Produced and/or Separated and Purified at Y-12

Isotope	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1961	1963	1965	1967	1968
Molybdenum-94										14 mg	40 mg						
Molybdenum-95										30 mg	2,920 mg						
Molybdenum-96										20 mg	5 mg						
Molybdenum-97										10 mg	10 mg						
Molybdenum-98										35 mg	50 mg						
Molybdenum-100										210 mg							
Neodymium-142											5,300 mg						
Neodymium-143										3,859 mg	3,260 mg						
Neodymium-144										200 mg	5,200 mg						
Neodymium-145										1,354 mg	2,810 mg						
Neodymium-146										290 mg	5,075 mg						
Neodymium-147										248 mCi	8 mCi						
Neodymium-148										40 mg	53 mg						
Neodymium-150										60 mg	117 mg						
Nickel-58										4,550 mg	1,255 g						
Nickel-60										8,117 mg	190 mg						
Nickel-61										72 mg	20 mg						

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Nickel-62										2,575 mg	100 mg						
Nickel-63									3 mCi	7 mCi	90 mCi						
Nickel-64										210 mg	60 mg						
Niobium-92														b			
Niobium-93																	b
Niobium-94																	b
Niobium-95									76 mCi	77 mCi	56 mCi						
Nitrogen-13																	
Nitrogen-15											13,843 mg						
Osmium-190														b			
Osmium-191									47 mCi	55 mCi	43 mCi						
Palladium-102											10 mg						
Palladium-103													b				
Palladium-104										30 mg							
Palladium-105										30 mg							
Palladium-106										30 mg							
Palladium-108										15 mg	10 mg						
Palladium-109										2 mCi	190 mCi						
Palladium-110										20	75						

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										mg	mg						
Phosphorus-32										120 mCi							
Platinum-185													b				
Platinum-190											11 mg						
Platinum-192										3 mg	12 mg						
Platinum-194										6,016 mg	40 mg						
Platinum-195										25 mg							
Platinum-196										60 mg	155 mg						
Platinum-198										10 mg	5 mg						
Plutonium (feed)											110 g						
Plutonium-240									1,110 mCi		4.4 g						
Plutonium-241											0.9 g						
Plutonium-242											0.107 g						
Polonium-207																	
Polonium-208					2.6 g												
Polonium-209													b				
Polonium-211																	b
Potassium-38m												b					
Potassium-39										4,120	1,787						

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										mg	mg						
Potassium-40										2 mg	19 mg						
Potassium-41									30 mg	1,720 mg	201 mg	b					
Potassium-42											8,333 mCi						
Potassium-44								0.5 g									
Praseodymium-142									302 mCi	2,757 mCi							
Praseodymium-143										12 mCi	10 mCi						
Promethium-147									1 mCi	8 mCi							
Promethium-148													b				
Radium-219																	b
Rhenium-185										55 mg	1,220 mg						
Rhenium-186											61 mCi						
Rhenium-187										40 mg	75 mg						
Rubidium-74													b				
Rubidium-85										5,708 mg	200 mg						
Rubidium-86											1,978 mCi						
Rubidium-87										3,864 mg	265 mg						
Ruthenium-96											36 mg						

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Ruthenium-98										3 mg	12 mg						
Ruthenium-99									75 mg	9 mg	126 mg						
Ruthenium-100										9 mg	81 mg						
Ruthenium-101									150 mg	9 mg	116 mg						
Ruthenium-102									5 mg	215 mg	30 mg						
Ruthenium-103									628 mCi	2,190 mCi	44 mCi						
Ruthenium-104									75 mg	54 mg	41 mg						
Ruthenium-106									209 mCi	74 mCi	420 mCi						
Samarium-144										150 mg	585 mg						
Samarium-145															b		
Samarium-147										285 mg	1,180 mg						
Samarium-148											1,180 mg						
Samarium-149										1,495 mg	1,060 mg				b		
Samarium-150										285 mg	1,000 mg						
Samarium-152										550 mg	1,150 mg						
Samarium-153									717 mCi	330 mCi	136 mCi						
Samarium-154										294 mg	2,407 mg						
Scandium-40																	

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Scandium-43												b					
Scandium-44												b					
Scandium-44m												b	b				
Scandium-46										114 mCi	80,350 mCi						
Selenium-74										110 mg	14 mg						
Selenium-75									167 mCi		333 mCi						
Selenium-76											56 mg						
Selenium-77										60 mg	110 mg						
Selenium-78											100 mg						
Selenium-80										55 mg	200 mg						
Selenium-82										80 mg	310 mg						
Silicon-28										5,310 mg	40 mg			b			
Silicon-29										30 mg	559 mg						
Silicon-30									50 mg		30 mg						
Silver-107										830 mg	100 mg						
Silver-109										1,050 mg	2,200 mg						
Silver-110									420 mCi	421 mCi	273 mCi						
Silver-111									672 mCi	368 mCi	100 mCi						

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Sodium-22													b				
Sodium-24									59 mCi	31 mCi	2,602 mCi						
Strontium-84										12 mg	151 mg						
Strontium-85									1,676 mCi				b				
Strontium-86										2,826 mg	765 mg						
Strontium-87										1,790 mg	1,000 mg						
Strontium-88										4,016 mg	210 mg						
Strontium-89									12 mCi	1,474 mCi	1,439 mCi						
Sulfur-32										220 mg	50 mg						
Sulfur-33										45 mg	8 mg						
Sulfur-34										6 mg	135 mg						
Sulfur-35									1,924 mCi	1,250 mCi							
Technicium-99									75 mCi	161 mCi	82 mCi						
Tellurium-120											1 mg						
Tellurium-122										4 mg	100 mg						
Tellurium-123											100 mg						
Tellurium-123m											115 mg						
Tellurium-124											300						

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											mg						
Tellurium-125										3,200 mg	430 mg						
Tellurium-126										50 mg	430 mg						
Tellurium-128											115 mg						
Tellurium-130										1,050 mg	300 mg						
Thallium-203											1,007 mg						
Thallium-204									1 mCi	0.37 mCi	0 mCi						
Thallium-205											1,014 mg						
Thorium-223																	b
Thorium-230						150 g					259 mCi						
Thorium-nat											0.1966 g						
Thulium-168							b						b				
Tin-112										3 mg							
Tin-113									1,712 mCi	251 mCi	3,000 g						
Tin-114											5 mg						
Tin-115										508 mg	5 mg						
Tin-116										1,714 mg	165 mg						
Tin-117										1,080 mg	165 mg						

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Tin-118										1,790 mg	120 mg						
Tin-119											170 mg						
Tin-120										837 mg	234 mg						
Tin-122										150 mg	20 mg						
Tin-124										150 mg	25 mg						
Titanium-44													b				
Titanium-45												b					
Titanium-46										4,763 mg	90 mg						
Titanium-47										5,576 mg	25 mg						
Titanium-48										53,655 mg	1,050 mg						
Titanium-49										4,178 mg	2,912 mg						
Titanium-50										4,086 mg	20 mg						
Tungsten-180										18 mg	13 mg						
Tungsten-181													b				
Tungsten-182										8,500 mg	499 mg						
Tungsten-183										3,546 mg	2,079 mg						
Tungsten-184										186 mg	530 mg						
Tungsten-185									118 mCi	26 mCi	29 mCi						

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Tungsten-186										7,185 mg	650 mg						
Tungsten-187									0 mCi	95 mCi	79 mCi						
Turbium							b										
Uranium (feed)					4.265 Ci												
Uranium-227																	b
Uranium-234			18 g per run	100 g per run	13,600 g	4,945 Ci					5 mCi						
Uranium-235					10 mg						2,308 g						
Uranium-236					10.7 mg	50 mg					129.5143 g						
Uranium-238					1.8 g	352 mg					0.4798 g						
Vanadium-47												b					
Vanadium-48												b	b				
Vanadium-50										100 mg	2 mg						
Vanadium-51										100 mg							
Yttrium-87																	b
Yttrium-88																	b
Yttrium-90									126 mCi	35 mCi	2,288.294 g						
Yttrium-91									0 mCi	40 mCi	279 mCi						
Zinc-63						2 g											
Zinc-64										351	328						

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										mg	mg						
Zinc-65									250 mCi	940 mCi	1,068 mCi						
Zinc-66										4,993 mg	31 mg						
Zinc-67										135 mg							
Zinc-68										2,917 mg	151 mg						
Zinc-70										103 mg	25 mg						
Zinc-72													b				
Zirconium-89														b			
Zirconium-90										10,046 mg	4,783 mg				b		
Zirconium-91										3,040 mg	150 mg						
Zirconium-92										4,722 mg							
Zirconium-94										4,313 mg							
Zirconium-95											1,455 mCi						
Zirconium-96										122 mg	22 mg						

Notes:

Yellow Cell with no entry indicates the presence of the radioisotope.

Yellow Cell with a "b" indicates that the isotope was used in Atomic Cross Sectional Studies.

Blue cell indicates stable isotopes.