

UNCLASSIFIED



Classification changed to UNCLASSIFIED  
by authority of the U. S. Atomic Energy Commission

Per *H. J. Carrall 2-1-56 (Int 2)*

BY REPORT LIBRARY *M. J. ... 3-21-56*

VERIFIED UNCLASSIFIED  
JUL 1 0 1979  
*M. J. ... 12/1/95*

**CIC-14 REPORT COLLECTION  
REPRODUCTION  
COPY**

LAMS-271

PUBLICLY RELEASABLE  
LANL Classification Group



*M. J. ... 12/1/95*

August 9, 1945

This document contains 3 pages

*0.3*

ISOTOPE CHART

(High Atomic Number End)

Compiled by Alfreda Segre

SCANNED NOV 12 1990



~~... contains information of a...  
... national defense...  
... ing of the Espionage...  
... trans...  
... unauthorized person is prohibited...~~



UNCLASSIFIED

**UNCLASSIFIED**

This document is the high atomic number end of the nuclear isotope chart and is a secret document.

The notations are the same as for the nuclear chart and it can be pasted on it, once security permits it.

A few new symbols have been necessary. One star (\*) before the symbol of the isotope means that it is known to undergo fission under fast neutron bombardment; two stars (\*\*\*) mean that the isotope is known to undergo fission under slow neutron bombardment. The letter f among the modes of decay means spontaneous fission.



1996

NOV 12

SCANNED

LOS ALAMOS NATIONAL LABORATORY



3 9338 00339 2502

**UNCLASSIFIED**

UNCLASSIFIED

				239β 23.5M β 0.56; 1.2 γ 0.076		241(β)α		
				*U238α,γ 99.274 4.51 x 10 <sup>9</sup> y α 4.18 σ <sub>a</sub> 2.56	239β 2.33D β 0.14 0.78 γ 0.22 0.27	240α,γ,ε- ~10 <sup>4</sup> y	241α >50y α 5.47	E242α 0.7y α 6
				237β,γ 6.8D β- 0.26 γ 0.5	238β,ε- 2.0D β 1.35 γ 1.3 0.25 0.1	**239α,γ,ε- 2.41 x 10 <sup>4</sup> y α 5.16 γ 0.3 σ <sub>a</sub> 1070		C241α 30D α 6.25
		UX234β,γ 24.5D β 0.13 γ 0.092		236α >10 <sup>7</sup> y	*237α 2.2 x 10 <sup>6</sup> y α 4.77 σ <sub>a</sub> 110	238α,γ 60y α 5.52		
		233β 23.5M β 1.6 No γ	UX <sub>2</sub> UZ234 A,β,γ,ε- 1.14M 6.7H β 2.32 β 0.56 1.55 γ 0.82 γ 0.7	*AcU235Aα 0.719 8.88 x 10 <sup>8</sup> y α 4.52 σ <sub>a</sub> 645 ½		D	K	
		Th 232α 100% 1.39 x 10 <sup>10</sup> y α 3.97 σ <sub>a</sub> 8.3	233β,γ,ε- 27.4D β 0.5 γ 0.06-1.5	U <sub>1</sub> 234Aα 0.00518 2.33 x 10 <sup>5</sup> y α 4.76	CK γ,ε- >1y	C	α	α 5.75
		UY231β- 24.6H β- 0.2	232Aβ,γ 1.6D	**233α,γ,ε- 1.63 x 10 <sup>5</sup> y α 4.83 γ 0.4 σ <sub>a</sub> 553				
MsTh <sub>1</sub> 228 β- 6.7y β- 0.053		*Po230Aα,γ 8.3 x 10 <sup>4</sup> y α 4.66	*Pa231α,γ 100% 3.2 x 10 <sup>4</sup> y α 5.05 ¾	232α 30y α 5.31				
	MsTh <sub>2</sub> 228 β-γ 6.13H β 1.55 α 4.5	229α 10 <sup>3</sup> -10 <sup>4</sup> y α 5						
Ra226 α, γ 1590y α 4.79 γ 0.19	Ac227α,β 13.5y α 5.0 99% β 0.22 No γ	RdTh228α,γ 1.9y α 5.418						
225α 30D		RdAc227α,γ 18.9D α 6.049						
ThX224α 3.64D α 5.681								
AcX223 α, γ 11.2D α 6.717								
		σ <sub>a</sub> 6 σ <sub>f</sub> 19.3		σ <sub>a</sub> 7.1 σ <sub>f</sub> 16.3				

88  
Ra

89  
Ac

90  
Th

91  
Pa

92  
U

93  
Np

94  
Pu

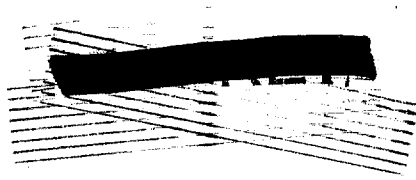
95

UNCLASSIFIED

**UNCLASSIFIED**

DOCUMENT ROOM

REC. FROM *es*  
DATE *8/11/45*  
REC. NO. REC. *1*



**UNCLASSIFIED**