	81	-Tl	-20)4
1				

81-thallium-204

<u>XS graphs</u>

Thallium-204 measures the dust and pollutant levels on filter paper... and gauges the thickness of plastics, sheet metal, rubber, textiles and paper.

element

- Atomic Mass: 203.9738486 +- 0.0000031 amu
- Excess Mass: -24359.825 +- 2.933 keV
- Binding Energy: 1607539.053 +- 2.946 keV
- Beta Decay Energy: B- 763.718 +- 0.177 keV

"The 1995 update to the atomic mass evaluation" by G.Audi and A.H.Wapstra, Nuclear Physics A595 vol. 4 p.409-480, December 25, 1995.

- Spin: 2-
- Half life: 3.78 years
- Mode of decay: Beta to Pb-204
 - Branch ratio: 97.10 %
 - Decay energy: 0.764 MeV
- Mode of decay: <u>Electron capture</u> to <u>Hg-204</u>
 - Branch ratio: 2.90 %
 - Decay energy: 0.347 MeV

R.R.Kinsey, et al., *The NUDAT/PCNUDAT Program for Nuclear Data*, paper submitted to the 9 th International Symposium of Capture-Gamma_raySpectroscopy and Related Topics, Budapest, Hungary, Octover 1996. Data extracted from NUDAT database (Jan. 14/1999)

Magnetic Dipole Moments and Electric Quadrupole Moments

 $Ex(kev)T_{1/2}$ Spin
 m(nm)
 Q(b)
 Ref. Std.MethodReference

 0
 3.78 y 2 0.09(1)
 AB
 HFI 1 437 (76)

 1104
 63 ms (7)+
 +1.187(6)
 TDPAD
 NP A195 577 (72)

N. J. Stone, <u>Table of Nuclear Magnetic Dipole and Electric Quadrupole Moments</u>, to be published. 2000 Courtesy of T. Burrows at BNL/NNDC.