Ta

Tantalum

2θ	Int	h	k	l
38.505*	100	1	1	0
55.599*	21	2	0	0
69.647*	38	2	1	1
82.545*	13	2	2	0
95.040*	19	3	1	0
107.771	7	2	2	2
121.519	29	3	2	1
137.736	4	4	0	0

Rad.: CuKa1 λ: 1.5405 Filter: Ni Beta.M d-sp:

Cut off: Int.: Diffract. I/Icor.: 4.437

Ref: Swanson, Tatge, Natl. Bur. Stand. (U.S.), Circ. 539, I, 29 (1953)

Sys.: Cubic S.G.: Im3m (229)

a: 3.3058 b: c: A: C:

α: β: γ: Z: 2 mp:

Ref: Ibid.

Dx: 16.634 Dm: SS/FOM: F_8=109(.0092, 8)

Color: Gray

Pattern taken at 26 C. Sample procured from Johnson Matthey Company, Ltd., London, England, UK. CAS #: 7440-25-7. The material contained dissolved gases which caused broadening of diffraction peaks, and TaH, which contributed extra reflections. After annealing at 1500 C in vacuum for 30 minutes in a tantalum boat, the sample gave very sharp reflections including only traces of the hydride. Spectroscopic analysis shows faint traces of Nb, Al, Si, Fe, Mn. Color from Merck Index, 8th Ed., p. 1012. W type. PSC: cI2. Mwt: 180.95. Volume[CD]: 36.13.