Zone Refined Beryllium and Al-Be Alloys

K. McDonald
Princeton U.

(Mar. 18, 1999)

Pure Beryllium from Brush Wellman

Purest readily available material is 99.8% Be (IF-1), as used in test by Zhao.

Zone refined material (99.999%) is available in small quantities: Max. diam. = $0.5''$, max. length = $10''$.

Cost is about twice that of IF-1 material.

Zhao could use a pair of small rods or strips in his rf conductivity setup, but desires length = $6.25''$.

(Contact: Christopher Dorn, 510-661-9747. He is generating a quote for 2 $6.25''$-long strips, sliced out of a rod by wire EDM.)

Aluminum-Beryllium Alloys from Brush Wellman

Al/Be (by weight)	Density (g/cm^3)	X_0 (g/cm^2)	X_0 (cm)
60/40	2.3	32.1	14.0
50/50	2.2	35.1	15.9
38/62	2.1	39.5	18.8

Thermal expansion coef. closer to that of copper.