

Material Selection for the Masses (5)
2012/3/7 Chihiro Tokoku

[1] RRR measurement for Upper Mass Material Search

	Cu-Ag (Cu-0.03%Ag)		Cu-Sn (Cu-0.03%Sn)		Cu-Zr (Cu-0.03%Zr)		OFC (Cu>99.99%)
Conductivity	95%IACS		99%IACS		97%IACS		101%IACS
Anneal	Before	After	Before	After	Before	After	-
RRR	30.2	191.6	9.75	12.3	3.46	10.0	~300 (C10110) ~6000 (7N)

 **ADDED**

Conclusion:

- Found some candidates that meet requirement (RRR~10-30).
- Next Step?

[2] Cryogenic Performance Test and Vibration Tests on Actual Instruments.

- Cryo-Unit #1 Delivered to Kashiwa. (2/21/2012)
- Cryo-Unit #1 1st run (2/22-29/2012) : Vibration Test at 4K path end.
- Cryo-Unit #1 2nd run (3/1-9/2012) : Cryogenic Performance Test, Vibration Test at 80K path end.
- Cryo-Unit #1 3rd run (3/9~/2012) : Vibration Test w/o Base Plate or w/ Reinforcing Structures.
- Cryo-Unit #2 and #3 Delivered to Kashiwa. (3/6/2012)
- Cryo-Unit #2 1st run (3/9~/2012) : Vibration Test at 4K path end.
- Cryo-Unit #4 Delivered to Kashiwa.
- Cryo-Unit #5, #6, #7 Delivery to Hida. (3/29/2012)



Cryo-Unit #1



Cryo-Unit #2 and #3