

## **INVESTIGATION OF INGOT MATERIAL WITH LARGE GRAIN FOR RF CAVITIES**

X. Singer, A. Brinkmann, H.-G. Brökmeier, J. Iversen, P. Kneisel,  
G.R. Myneni, E. Schulz, W. Singer, DESY

### *Abstract*

Metallurgical properties of high purity niobium discs cut from ingot of three companies are investigated. Measurement of the crystal lattice orientation in neighboring grains is done in order to understand high elongation at break and specific behaviour of grain boundaries. The cube orientation is represented in the stereographic projection or as pole figures. The eddy current scanning shows pronounced signal in grain boundary areas. The microstructure of two large crystals connected by EB welding as well as microstructure of chemically treated crystals and grain boundaries is investigated by light microscope and AFM. The deep drawing behaviour and the accuracy of the half cell shape are tested.

**NO SUBMISSION RECIEVED**