

## TOPIC 1: HIGH-FIELD Q-SLOPE

Peter Kneisel, TJNAF

On the previous day several talks have been presented both of theoretical aspects (A. Gurevich, E. Palmieri) of the Q-slope and of experimental observations (G. Ciovati, G. Ereemeev).

To remind everybody of the contents of these presentations Peter Kneisel will start with a short summary of the essential observations. P. Bauer of FNAL will present his collaborative work on a Q-slope model and representatives of DESY and Saclay will briefly summarize their findings in these labs.

The discussion should focus on answering or finding consensus on the following questions:

1. Is the high field Q-drop a magnetic or electric field effect?
2. What is the impact of grain boundaries on Q-drop?
3. Is there a frequency dependence of the onset value of the Q-drop?
4. Are there other remedies besides “in-situ” baking to eliminate the Q-drop?
5. Does surface smoothness (EP vs BCP) play an important role in a successful “in-situ” baking?
6. Is there an optimum baking temperature and baking time, which does not only improve the high field Q-value, but also maintains (does not increase) the residual resistance?
7. Out of all the suggested models for the Q-drop, is there a favorite model, which explains all/most of the experimental observations?
8. What additional crucial experiments are necessary to fully understand the Q-drop?