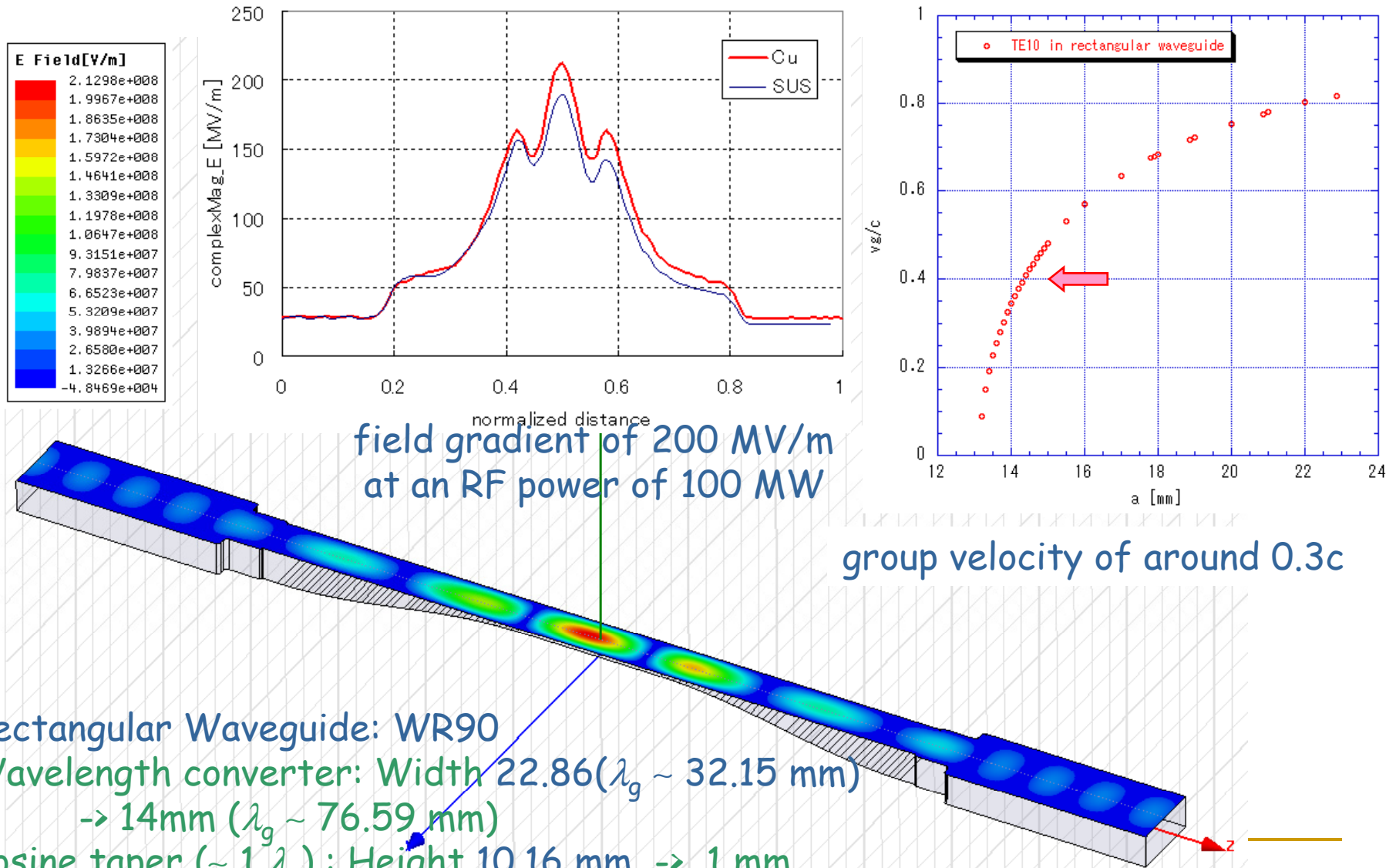


THP055

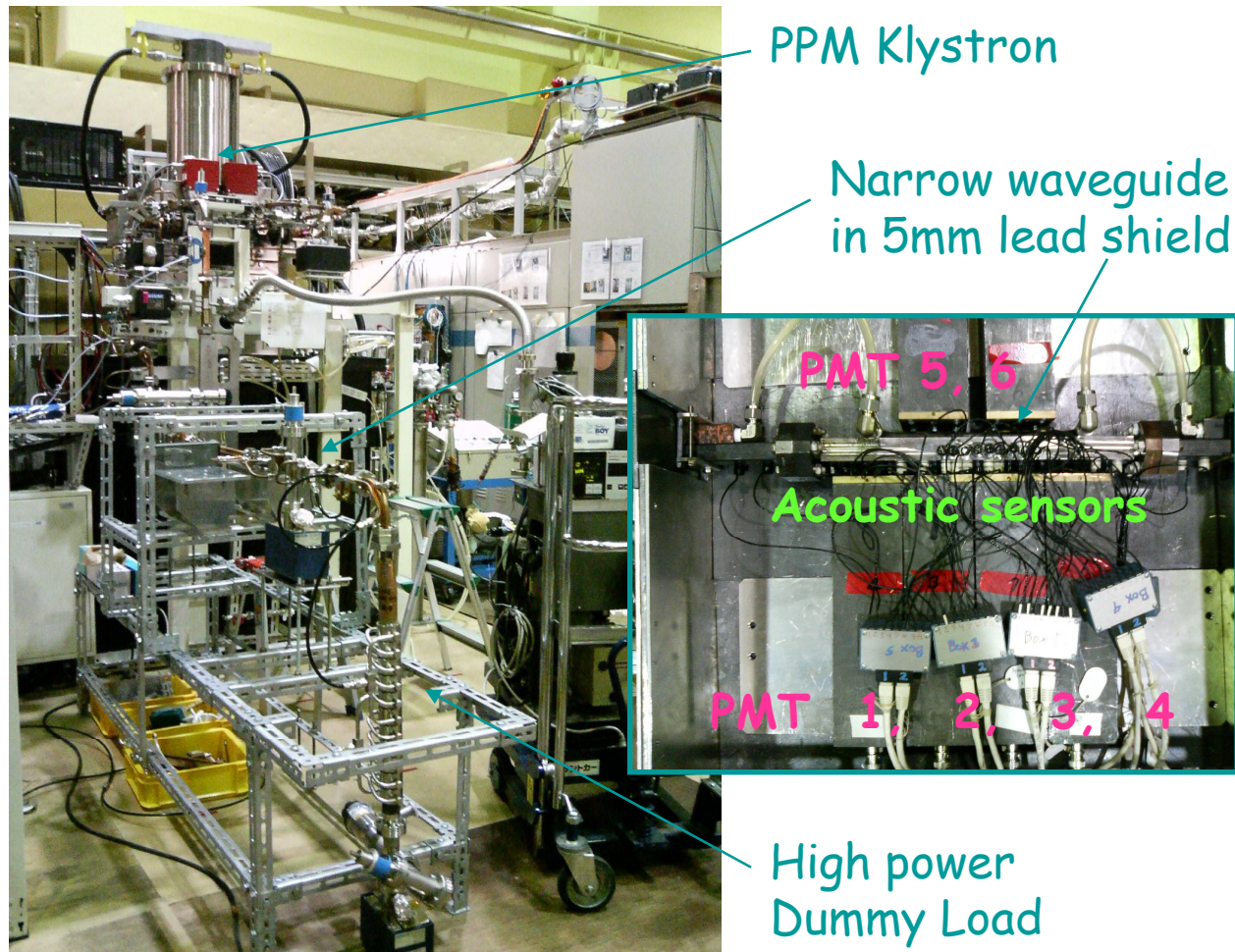
Characteristics of Different Materials on High-Gradient Experiments

K. Yokoyama, T. Higo, S. Fukuda, S. Matsumoto,
Y. Higashi, N. Kudoh, Y. Watanabe
KEK, Ibaraki, Japan

Narrow waveguide design



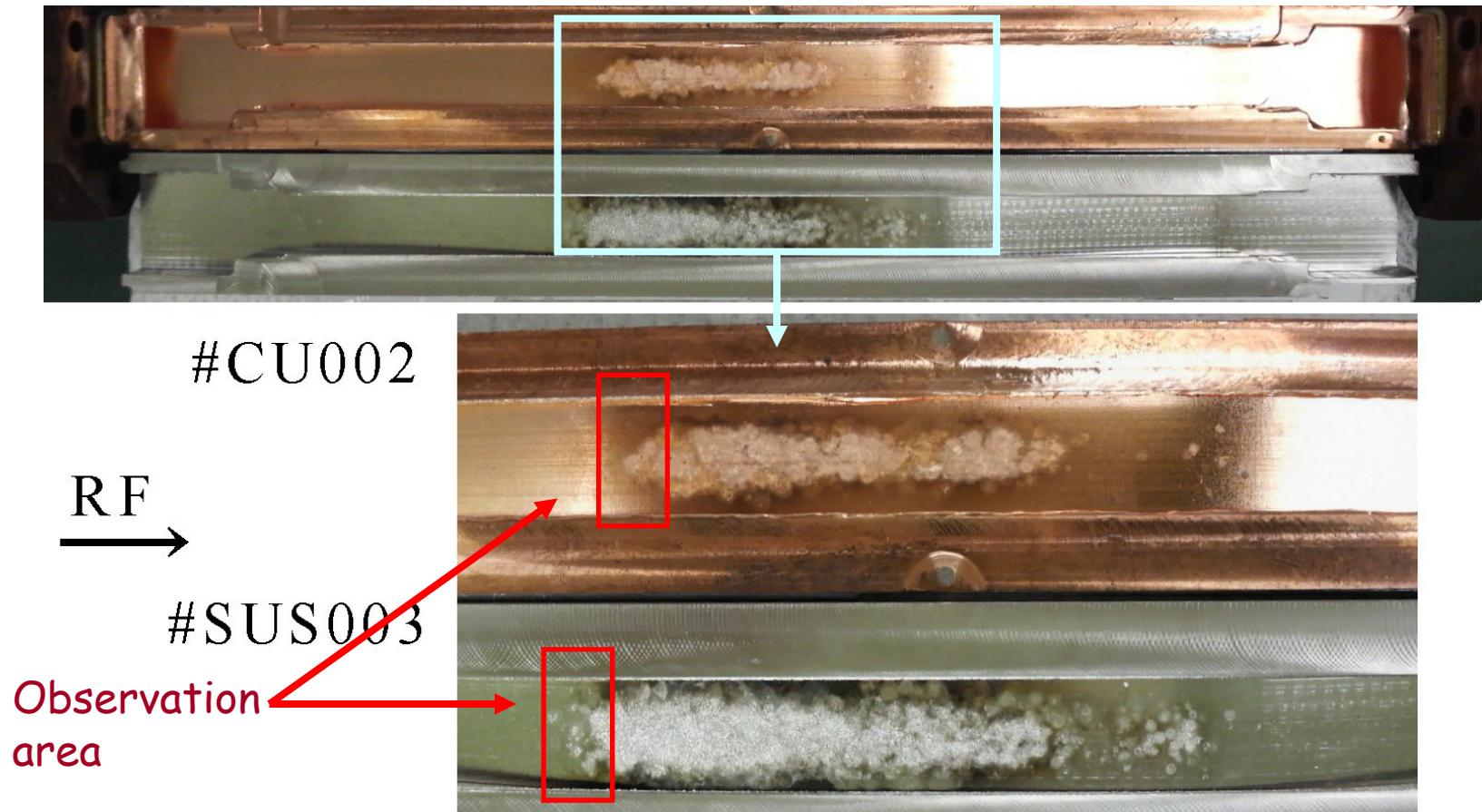
Setup for high-gradient experiments @ Nextef



- **#CU002**
 - tested at XTF (06.11~07.01)
 - Moving to Nextef (~ 07.04)
 - Using for system checking (~ 07.05)
- **#SUS003**
 - Tested at Nextef (~ 08.08)

- We conducted high-gradient experiment of stainless-steel(#SUS003) at Klystron Test Stand.

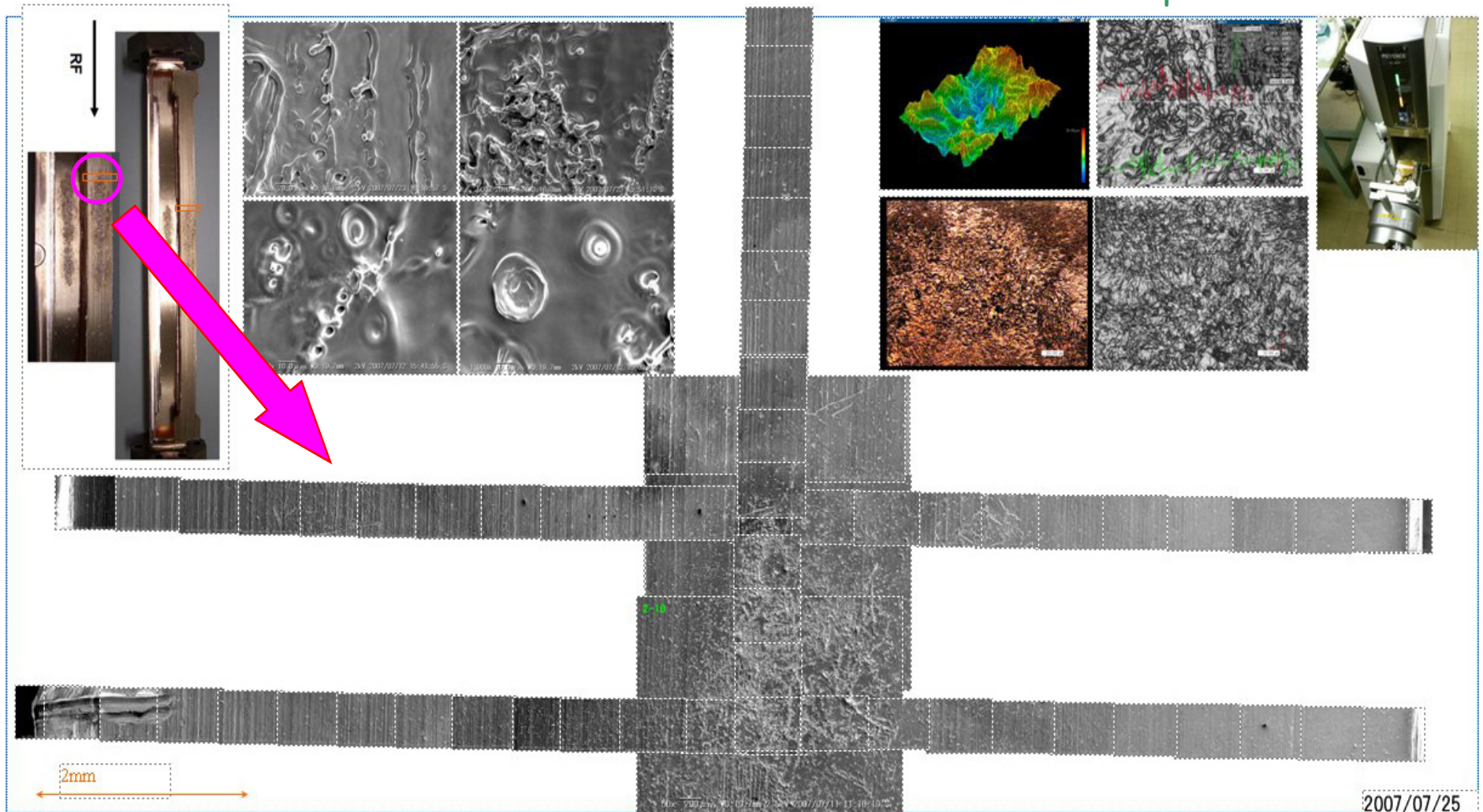
#CU002 and #SUS003 after high-gradient experiments



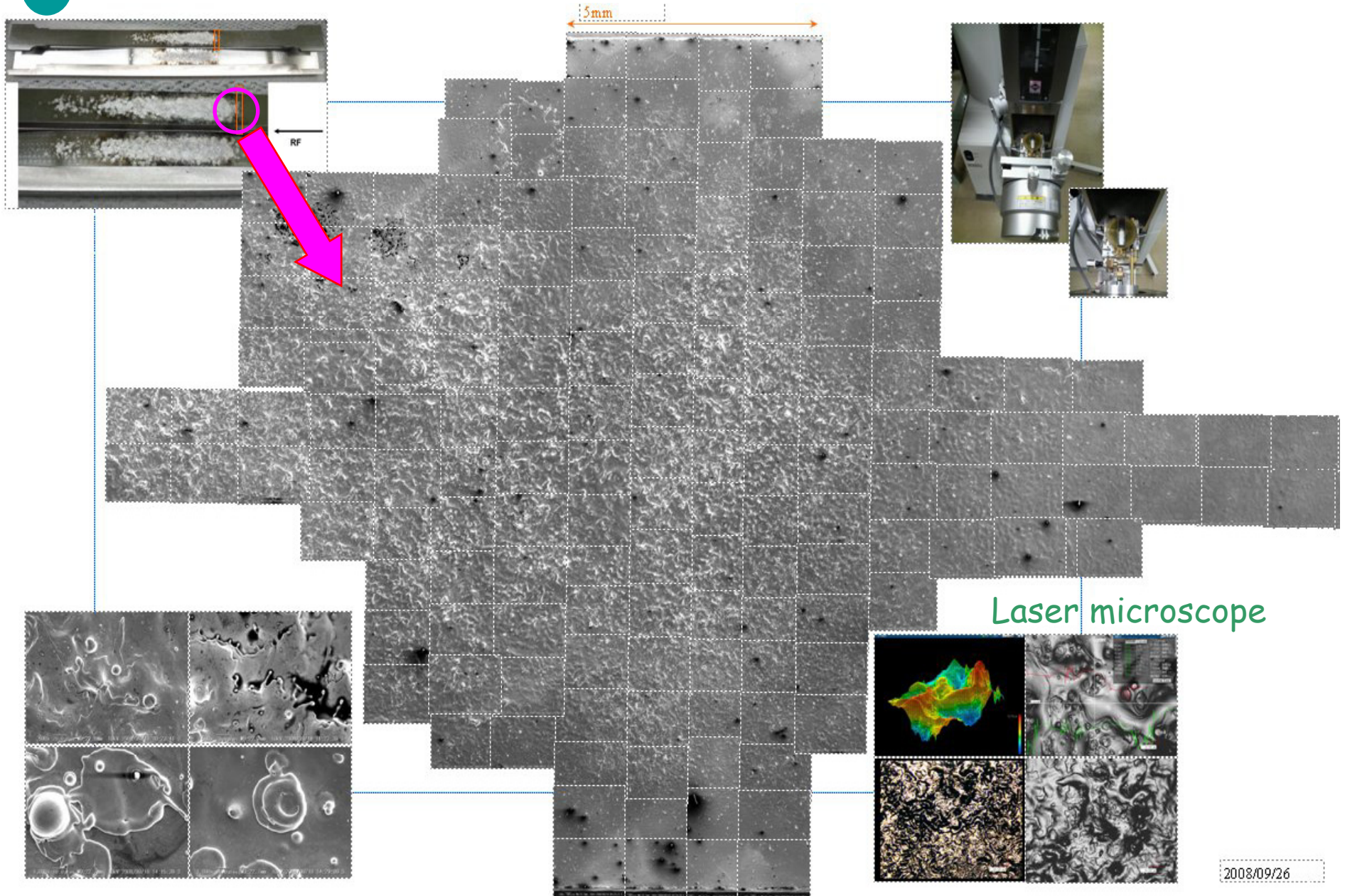
- Many breakdown damages were seen on the E-plane surface.
- The surface is intensively damaged, and it could also melt due to breakdown.

#CU002 Surface observation by SEM

Laser microscope



#SUS003 Surface observation by SEM



Please visit to THP055.

See you later.

Thank you for your attention !