Cavity status; recent KEK activities

MHI-06, MHI-7, MHI-8 were vertical tested on June, July.

→ EP acid (1000l) was re-newed on May 15. These cavity was processed by this new EP acid. (MHI-05 was 27MV/m using aged EP acid. Nb~8g/l)

→ MHI-06 22MV/m stopped by RF cable trouble. (stain)

→ MHI-07 16MV/m stopped by field emission. (stain)

→ MHI-08 16MV/m stopped by cell heating. (black object at equator weld edge)

The EP procedure test using old MHI 9 cell cavity (MHI-#0).

*MHI-05,06,07,08,09 are S1G candidates.

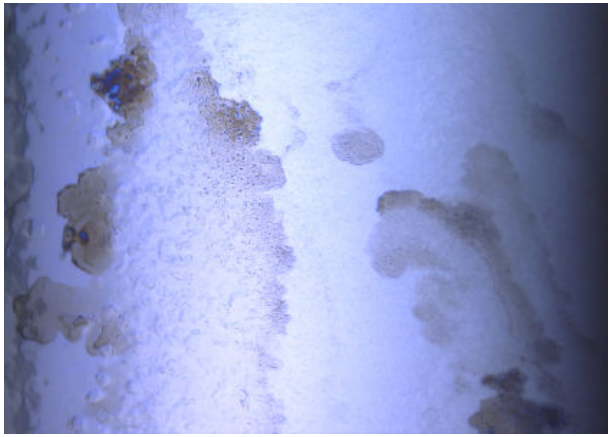
Brown spot and traces;

MHI-06： spot or traces on BP-#1、#1、#2、#3、#4、#8、#9、#9-BP (red indicate bad)

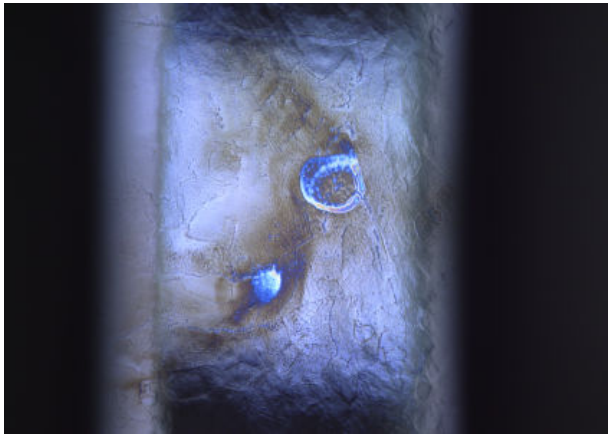
MHI-07： BP-#1、#1、#2、#3、#4、#5、#6、#7、#8、#9、#9-BP

Kyoto-camera picture examples using new LED illumination

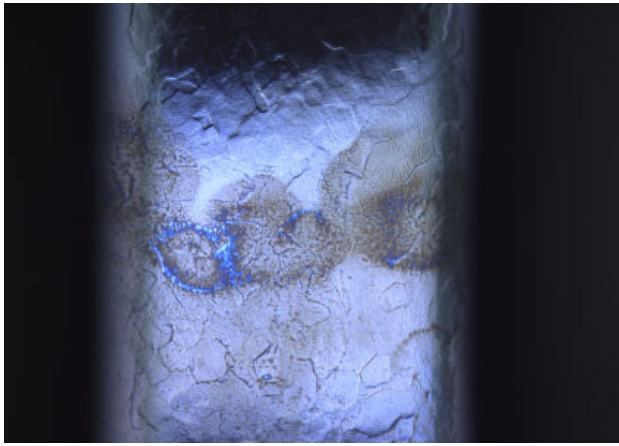
BL#6 1-cell equator, t = 306 deg.
Downstream : Outside weld area



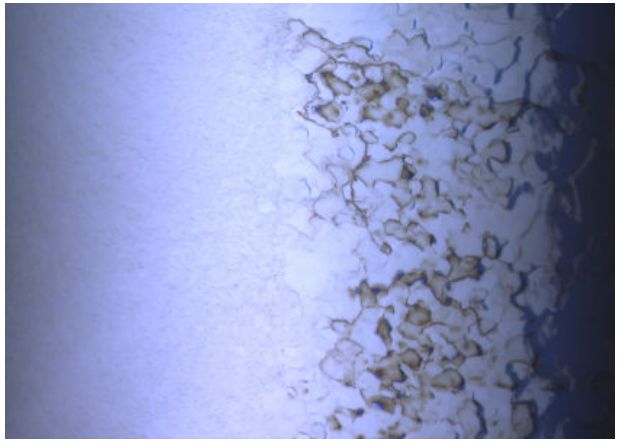
BL#6 #9-BP, t = 241 deg. -1



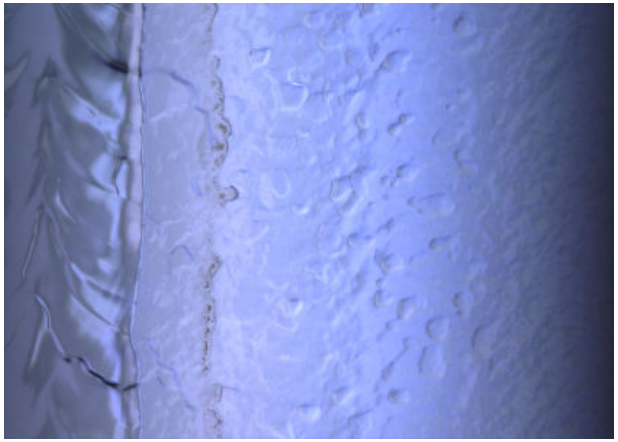
BL#6 #9-BP, t = 241 deg. -2



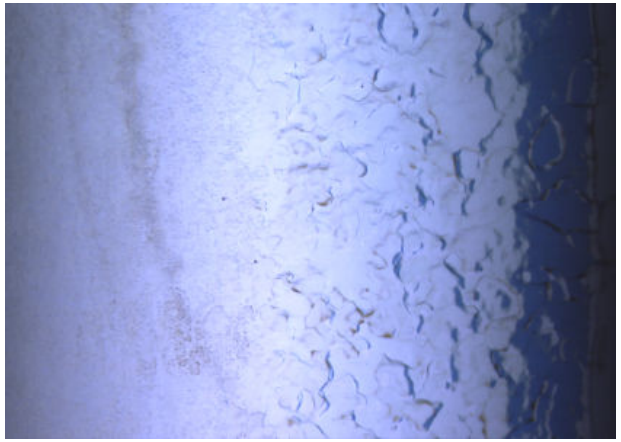
BL#6 9-cell equator, t = 034 deg.
Upstream : Outside weld area



BL#6 3-cell equator, t = 291 deg.

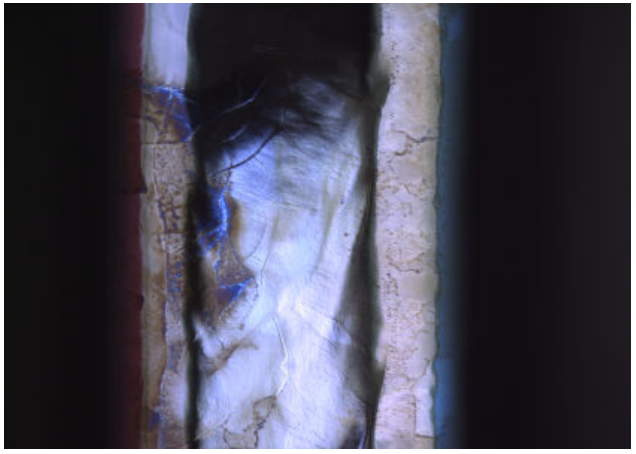


BL#6 9-cell equator, t = 184 deg.
Upstream : Outside weld area

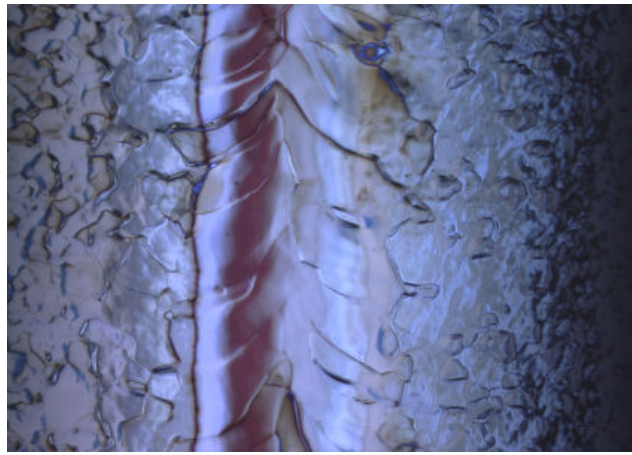


BL#6 3-4 iris, t = 055 deg.

BL#6 8-9 iris, t = 053 deg.

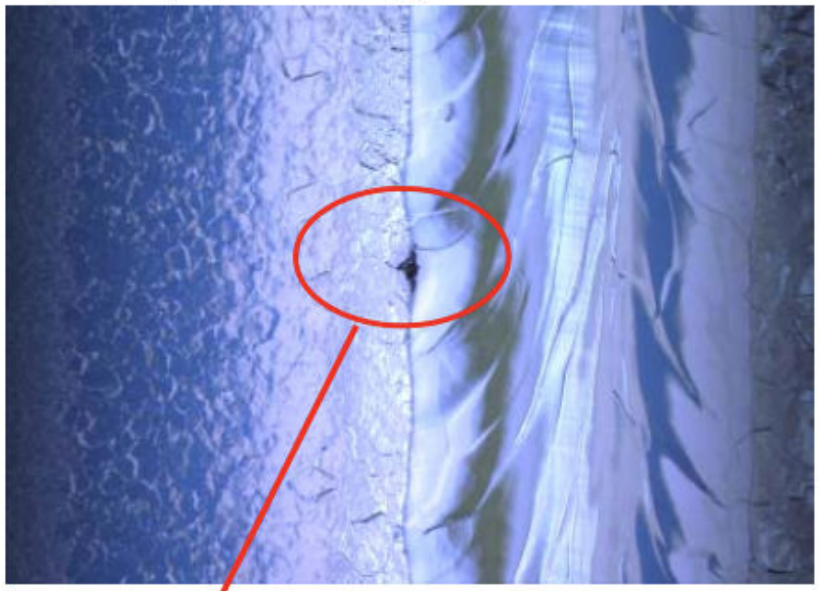


BL#6 9 equator, t = 037 deg.

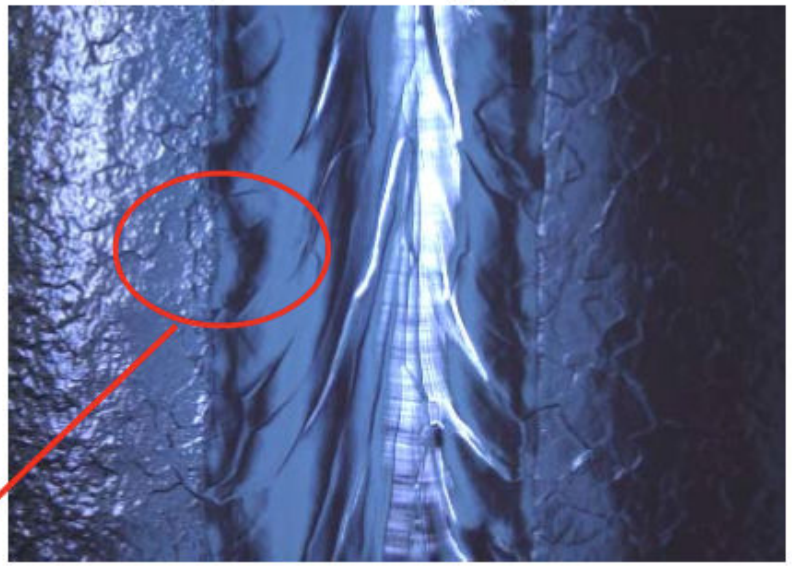


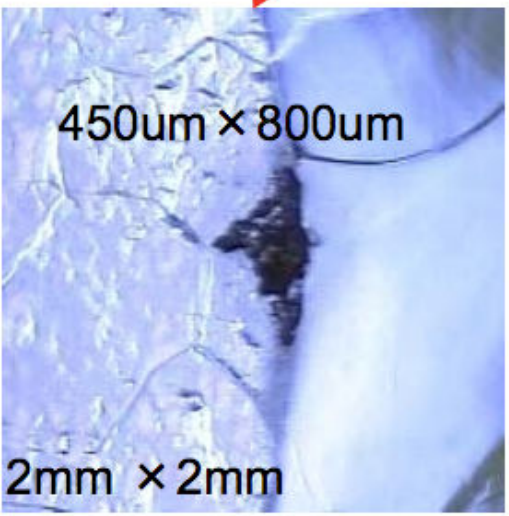
BL#8 の発熱箇所近傍の様子（1） heating spot

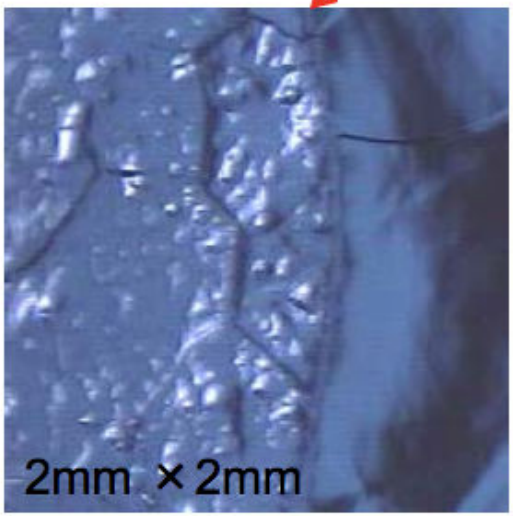
#2 equator, t = 172deg. After EP-2 and V.T.



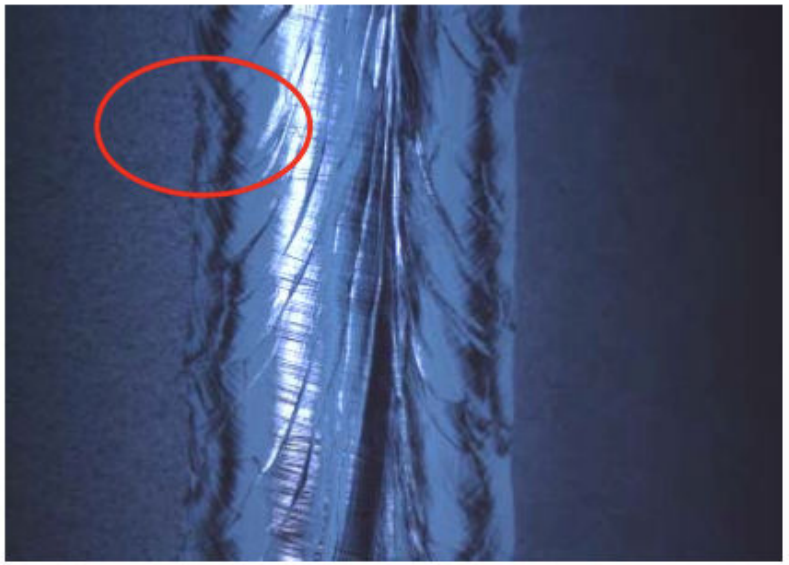
#2 equator, t = 172deg. , Before EP-2







#2 equator, t = 172deg. , As received.



Tested EP Parameter using MHI-#0 (9cell cavity)

(1) Nominal STF-EP Parameter for check -> stain exist
(2) Idling rotation after EP current stop, 5min ->30min ->stain exist
(3) Low voltage EP ~15V(half current density EP) -> stain exist
(4) 1 rotation/min -> 3 rotation/min ->stain exist
(5) 15litter/min -> 20litter/min acid flow rate ->stain exist

(6) more fast acid dump out from cavity will be tried, next.