

Lift up hole RF breakdown

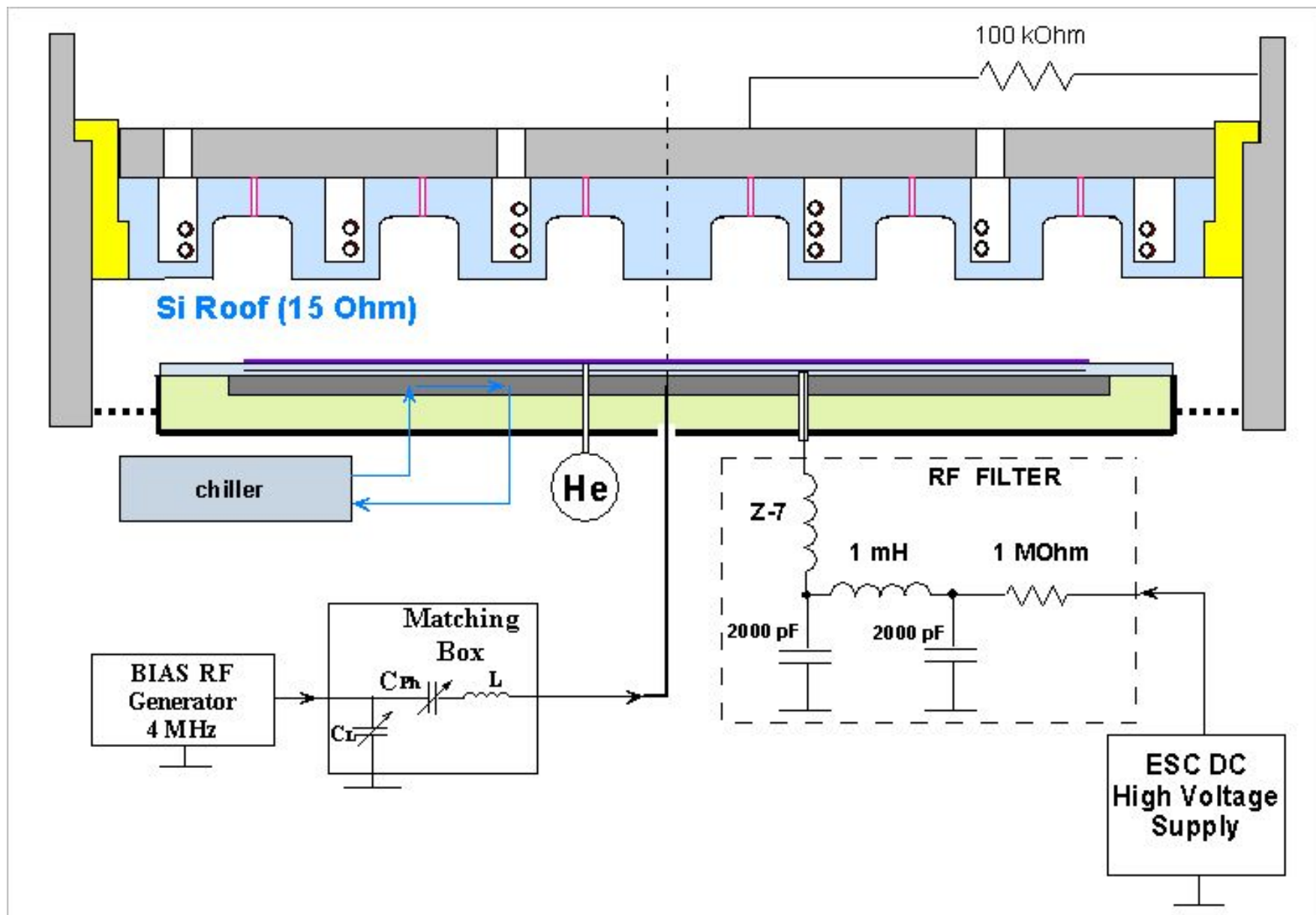
SE-4000 Experimental

2006.06.27 ~ 2006.07.14 Old type cathode block was checked
by high RF voltage bias (up to 8200

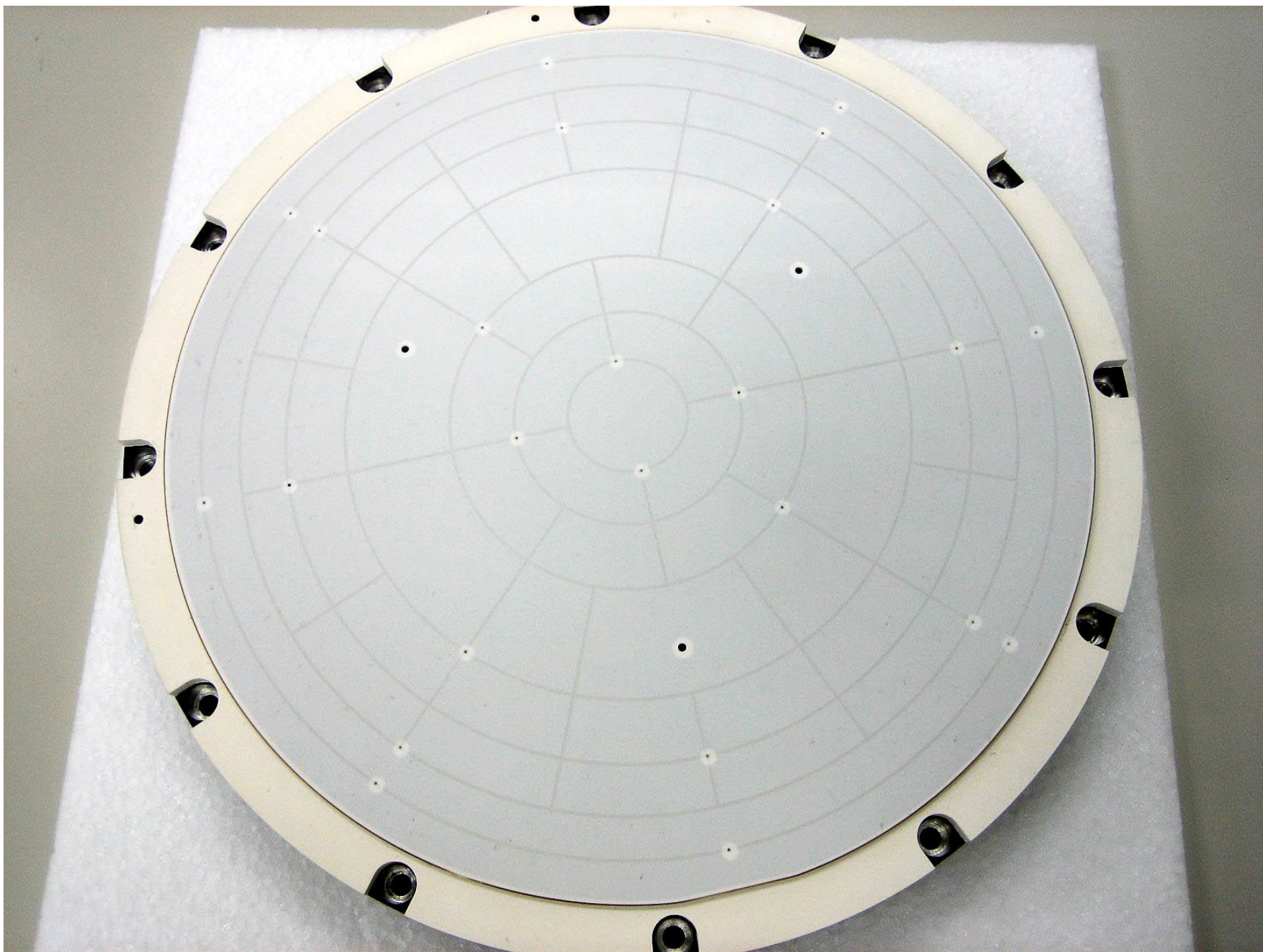
Vp-p)

Cathode: N4X05 - 2310

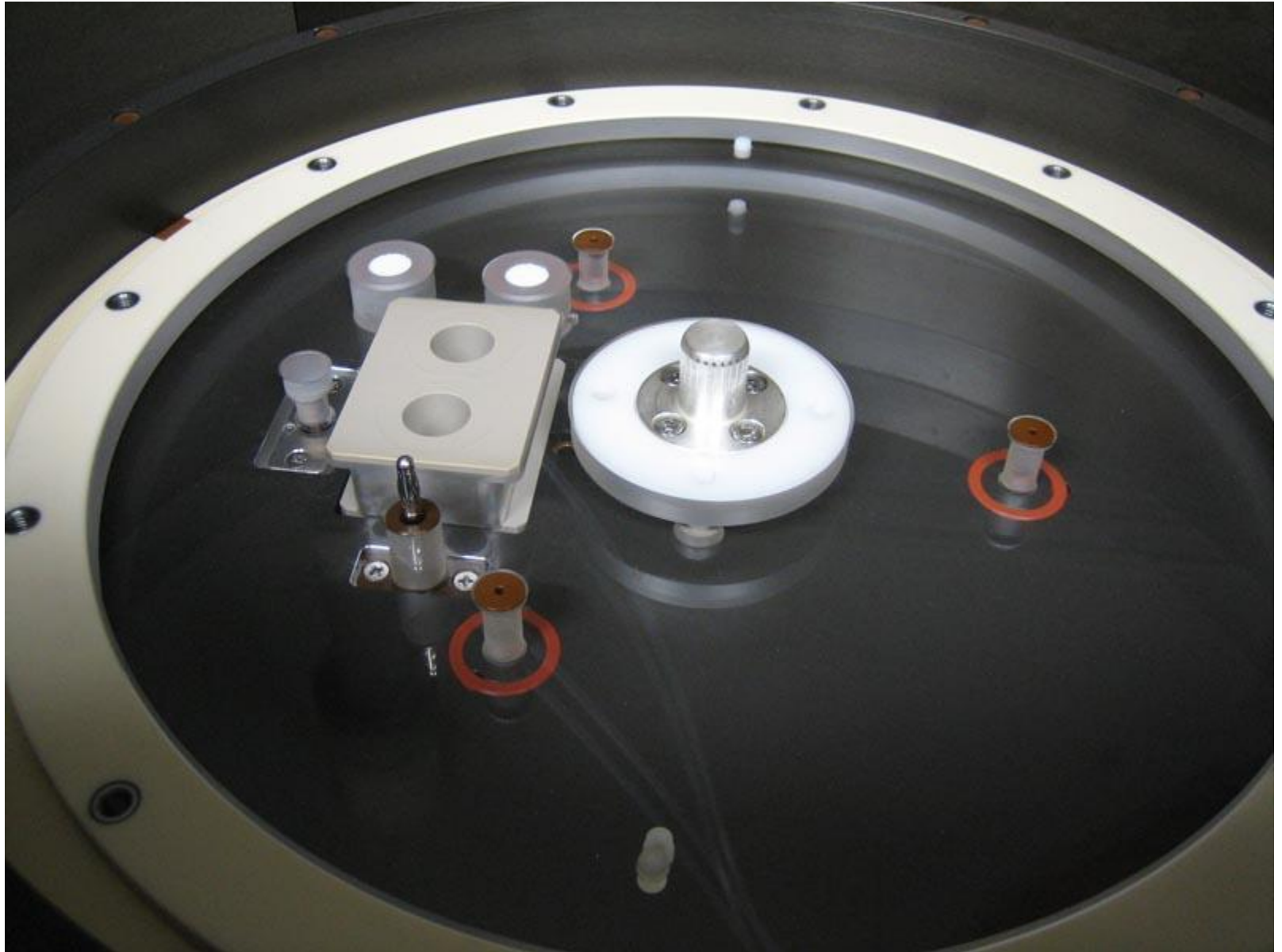
Standard connection was used in this experiments:
RF power - to base electrode,
DC high voltage – to ESC was applied.



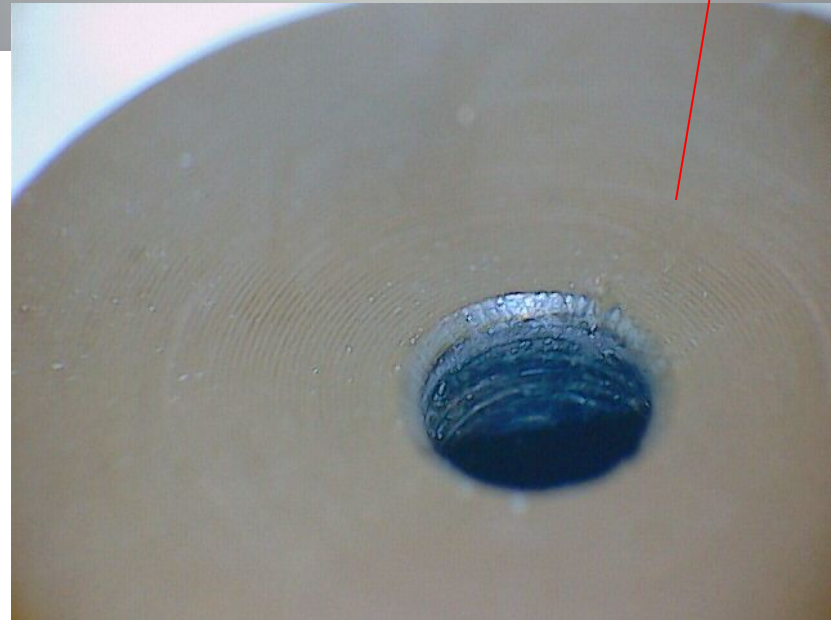
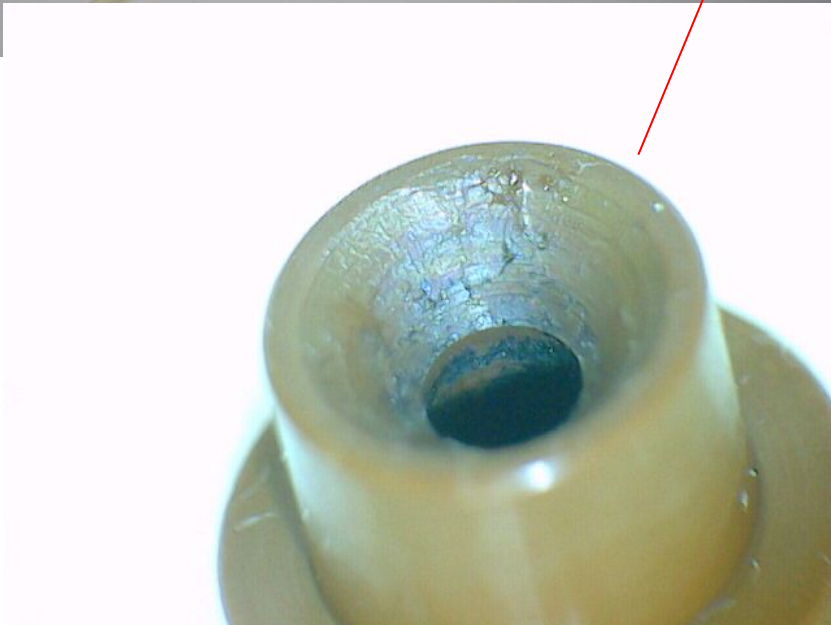
After experiment ESC surface has no damage, although many gas hole low power breakdowns occurred



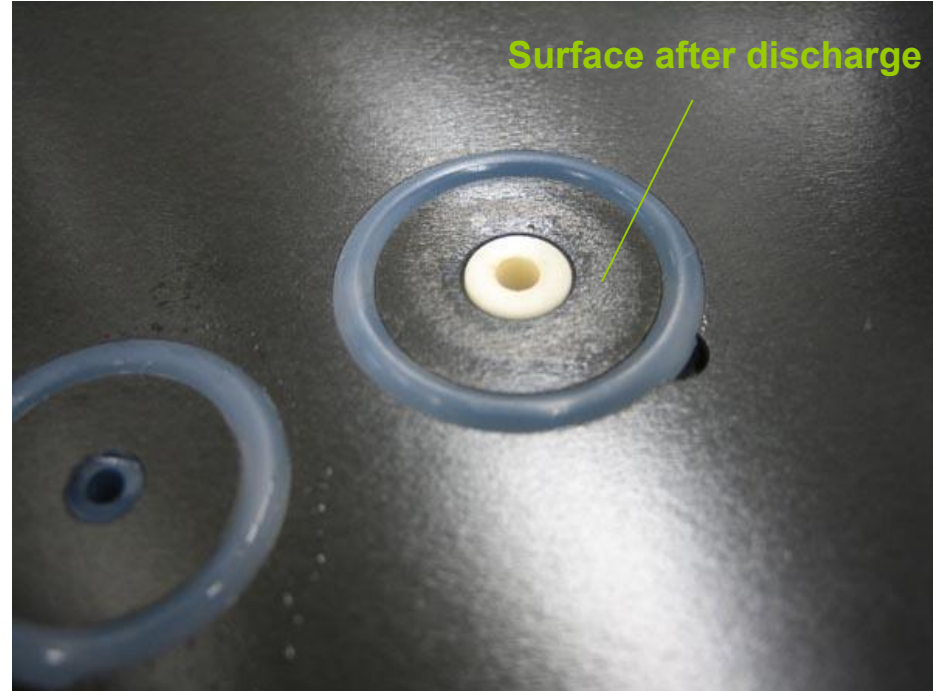
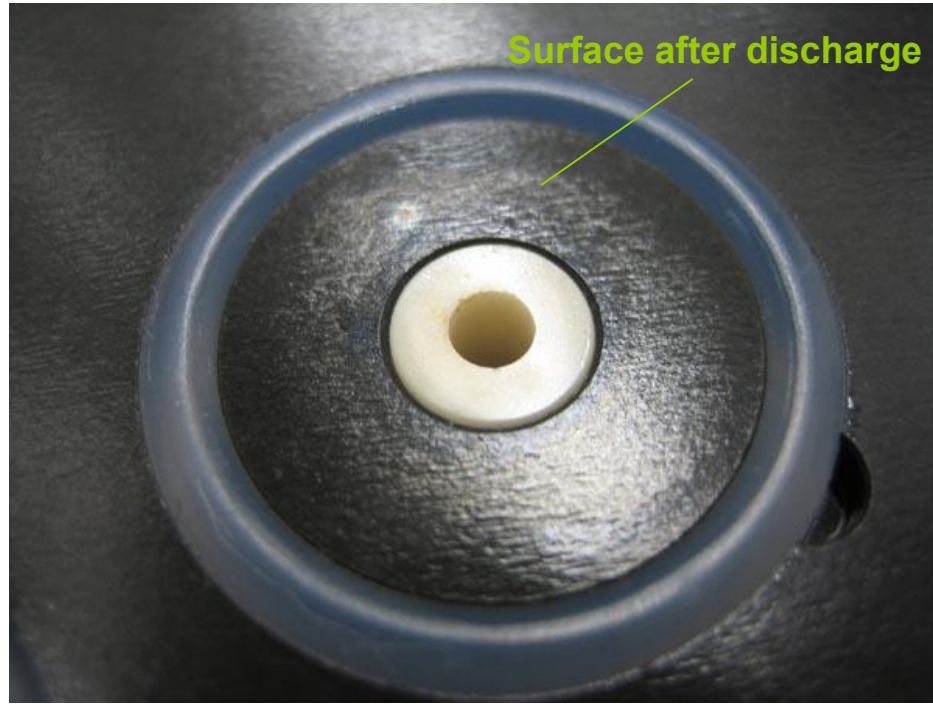
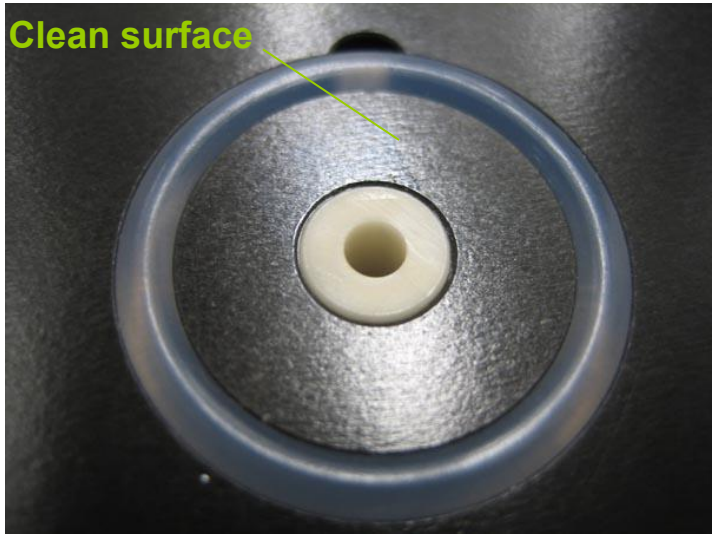
Under cathode parts has no damage too.



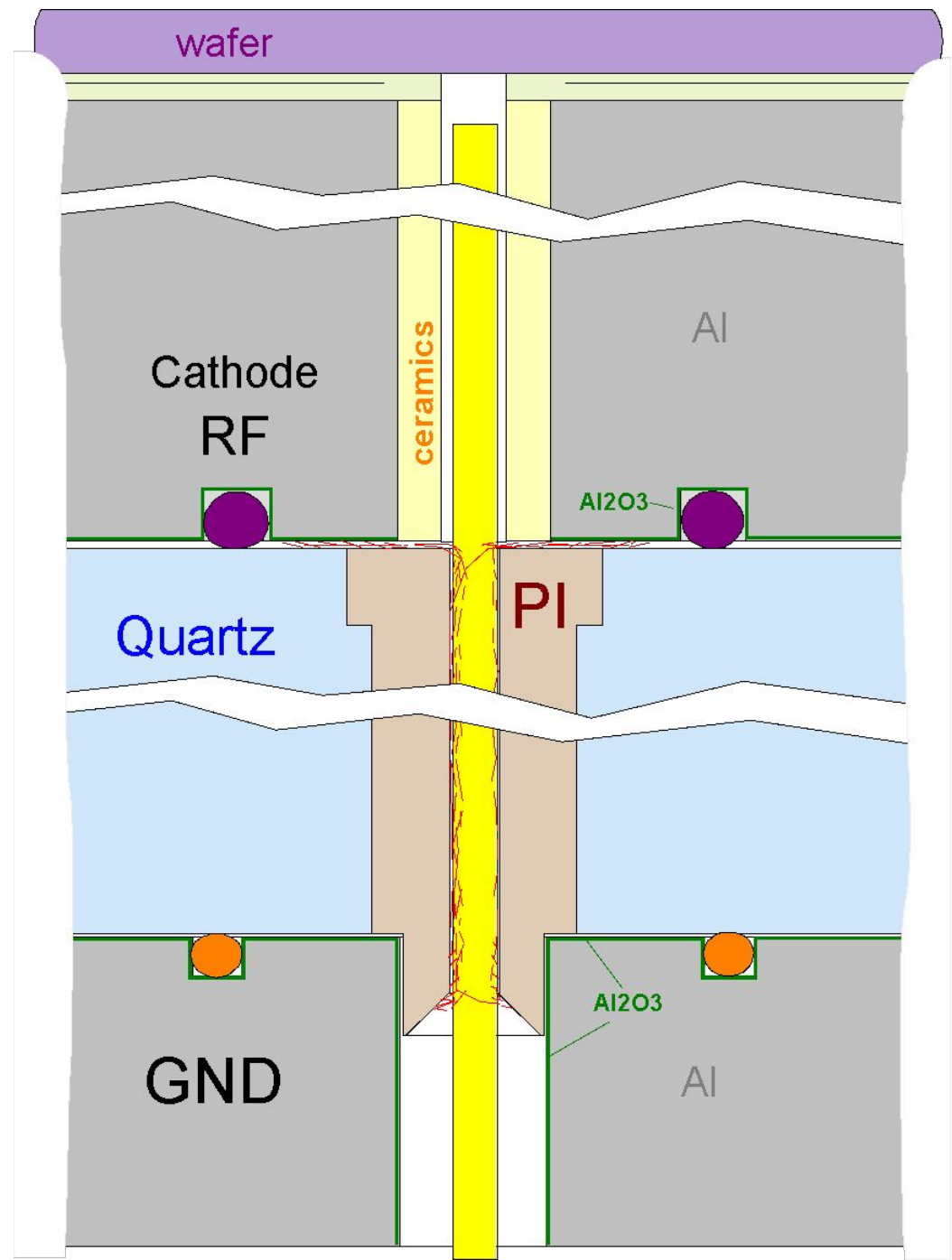
But one lift up hole and lift up pin has traces
of RF capacitive discharge



Cathode bottom surface around this lift up hole has traces of RF capacitive discharge too.



Position of capacitive discharge
inside lift up hole



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