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# Study of Higher Gap Volts at Injection

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### **U.S. Department of Energy**

USDOE Office of Science (SC)

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Number	180

#### AGS Studies Report

Date(s) April	24, 1985 Time(s) 1500-1600
Experimenter(s)	E. Gill, L. Ahrens, E. Raka, J. Woods, W. Frey
Reported by	E. Gill
Subject	Study of Higher Gap Volts at Injection

#### Observations and Conclusion

The purpose of this test was to see effect on capture of first 20 ms running the rf at higher voltages than normal operation. Reference to Plot A the sum gap volts were at 325 KV total average 7.38 KV/GAP it was noticed that some stations were running close to 9 KV. This limited us on going higher than we would like to reach, but good enough for a test. Plot B is normal running at 275 KV.

The plot of capture vs. time can be seen on Plots C & D. It was also noted that the bunch width at 20 ms was not changed by a large factor.

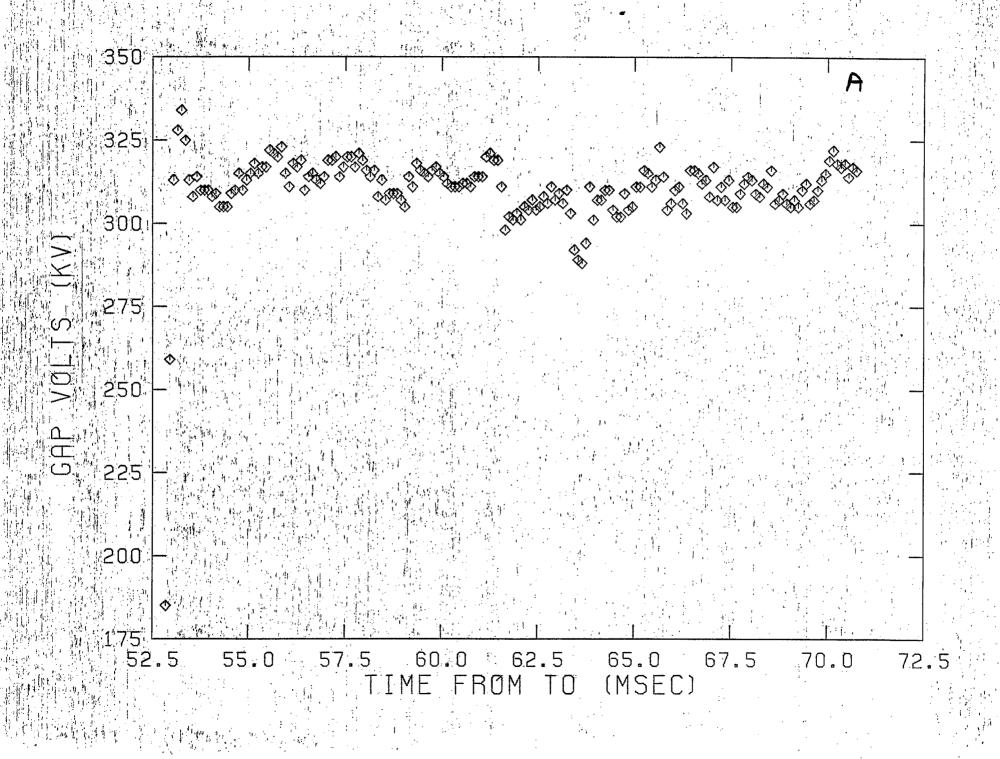
Some conclusions can be reached from looking at losses from the two plots. At 70 ms the intensity was  $1.85 \times 10^{13}$  with the highest voltage Plot C. It was also noted that maximum losses were over in 5 ms.

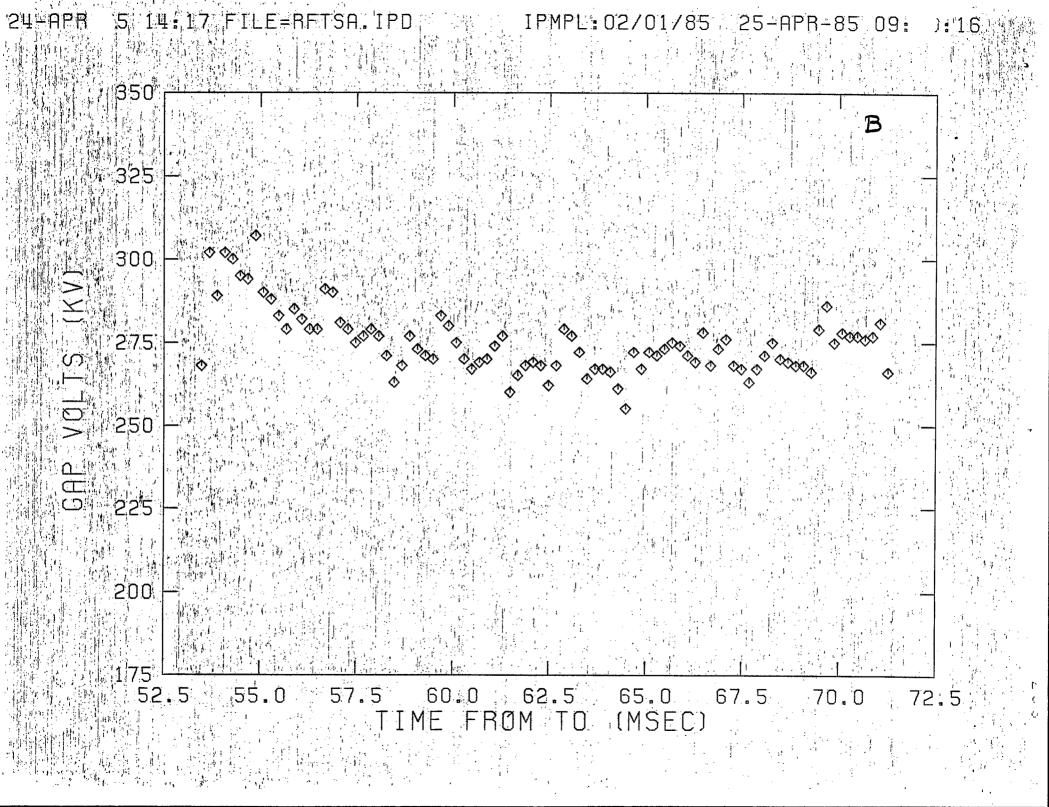
1d

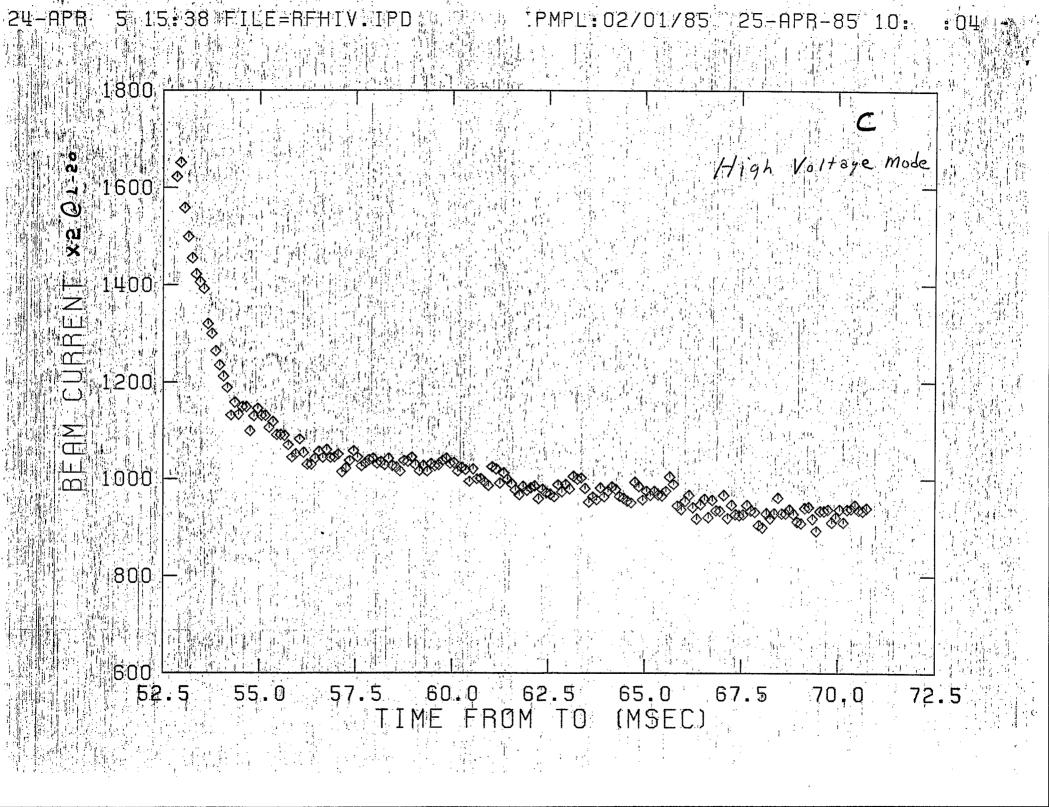
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## 24-APR- 5 15:38 FILE=RFHIV.IPD

### PMPL:02/01/85 25-APR-85 09: :22







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