BEAST News

Monday Feb 22, 1999
2月 22日, 1999年

(Tom Browder, University of Hawaii)
トム ブラウダー ハワイ大学

Injection:

LER injection has improved since Feb7th (BEAST runs)

Dose/per run has decreased from O(300 rad) to O(30 rad). Instantaneous diode dose rates have also improved. (See plots)

Dust Problem:

A new type of background has been observed in the HER from positively charged "dust" (See plots)

This phenomenon has been observed at HERA.

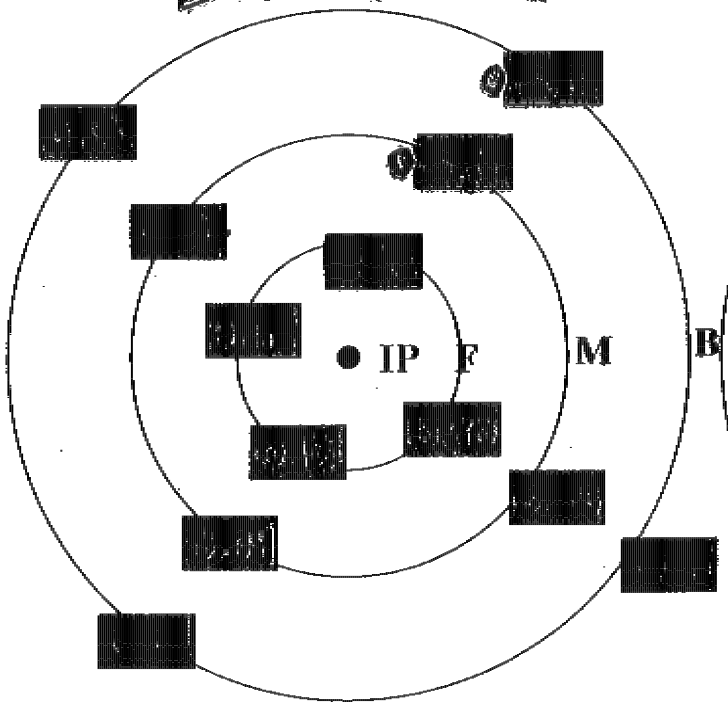
Baking:

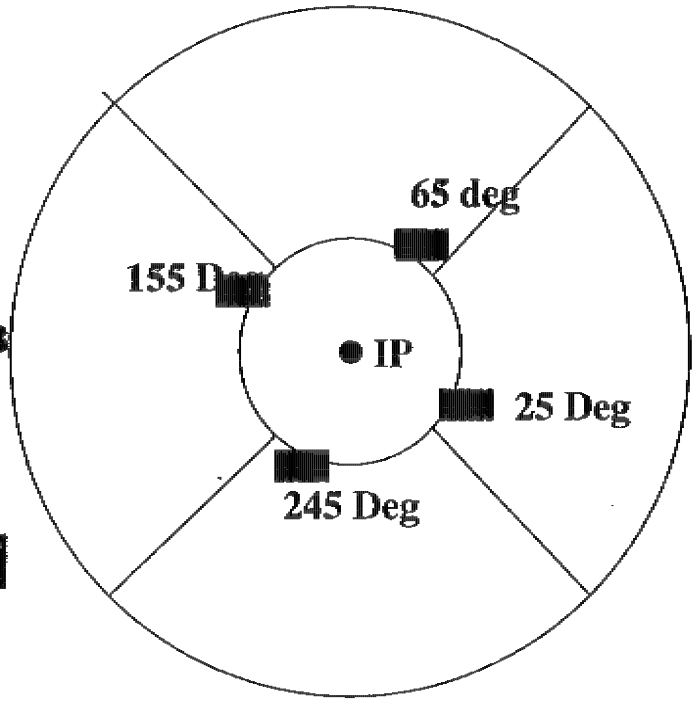
As of Sunday, $\int I \times t$ = 4.2 Amp-hours. (HER)

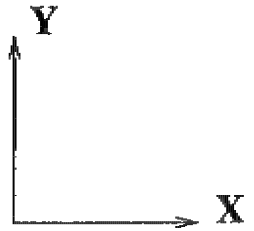
Goal is 200 Amp-hours. Ideal would be 1000 Amp-hours.

DOSE [kRad]

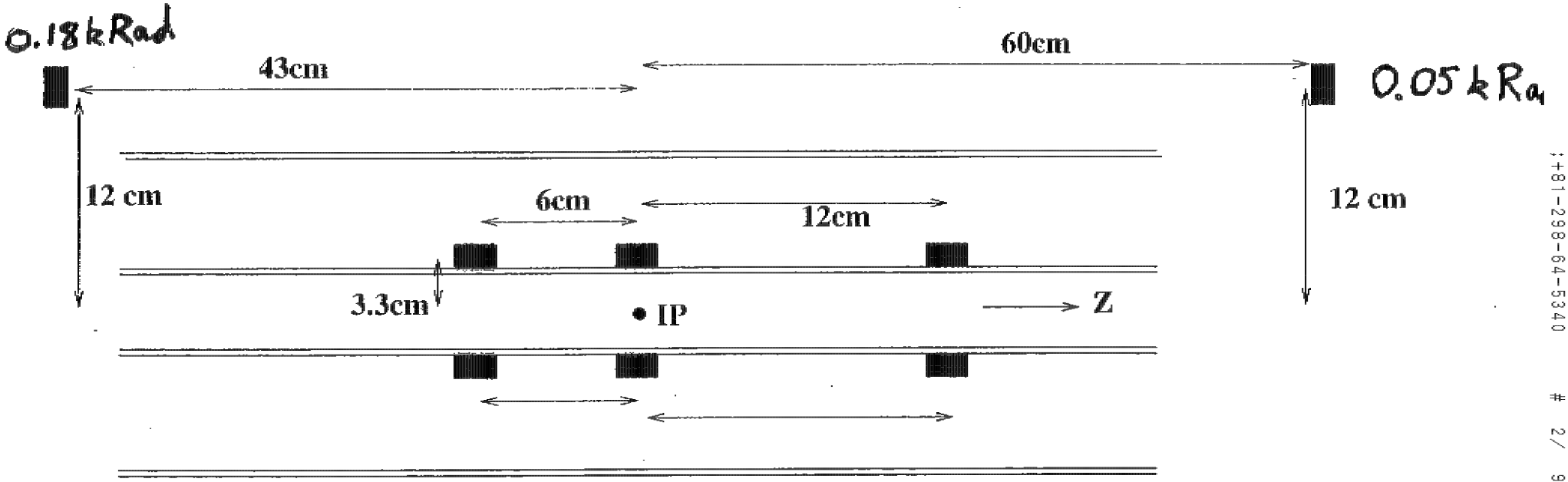
7 FEB 1999
10:25→17:40
LER INJECTION
& STORAGE
80 mA







VIEW FROM OHO

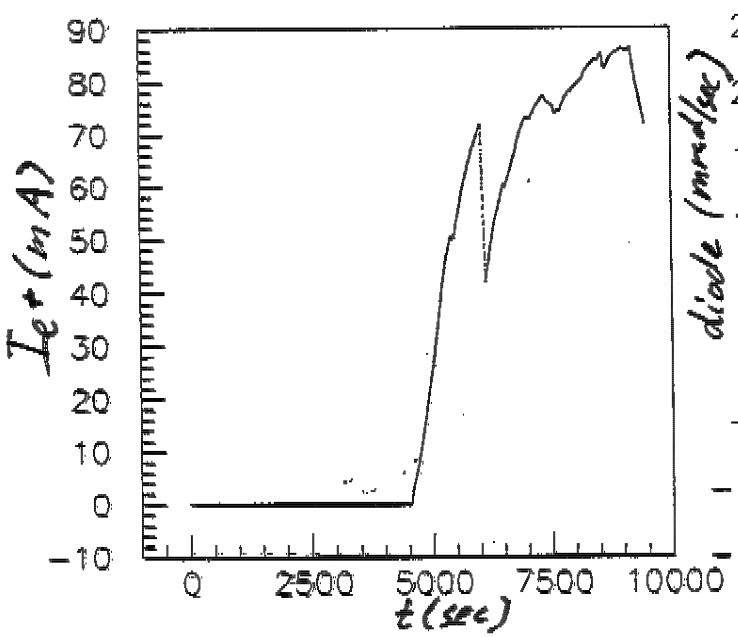


99- 2-22;15:52 ;BELLE GROUP ;+81-298-64-5340 # 2/ 9

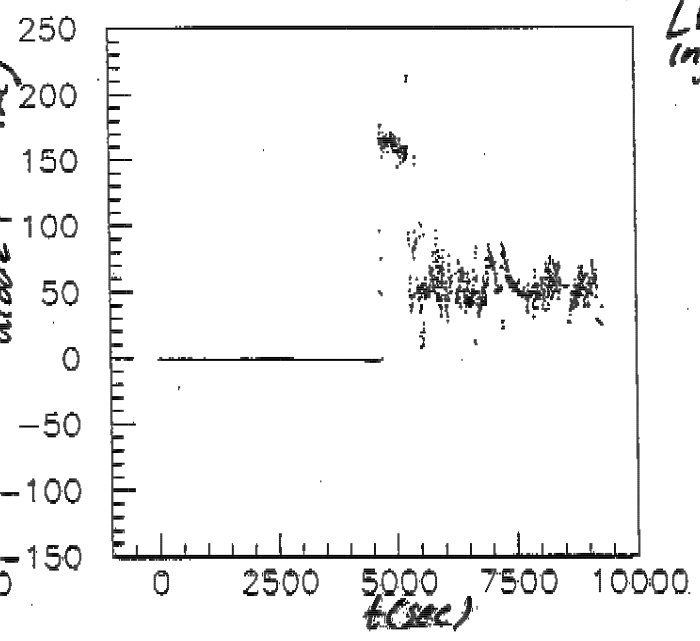
LER Injection Backgrounds (Feb 7th)

99/02/21 23.31.

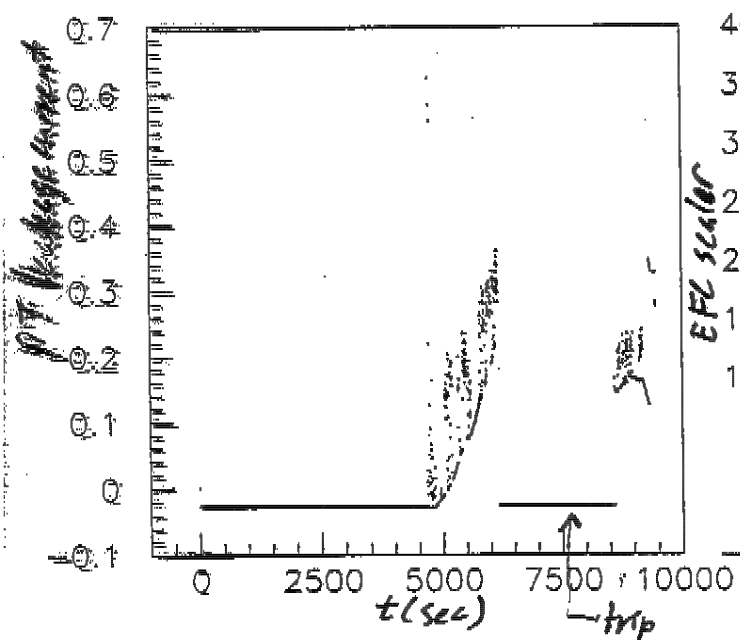
BEAST dedicated run, Feb 7th LER injection



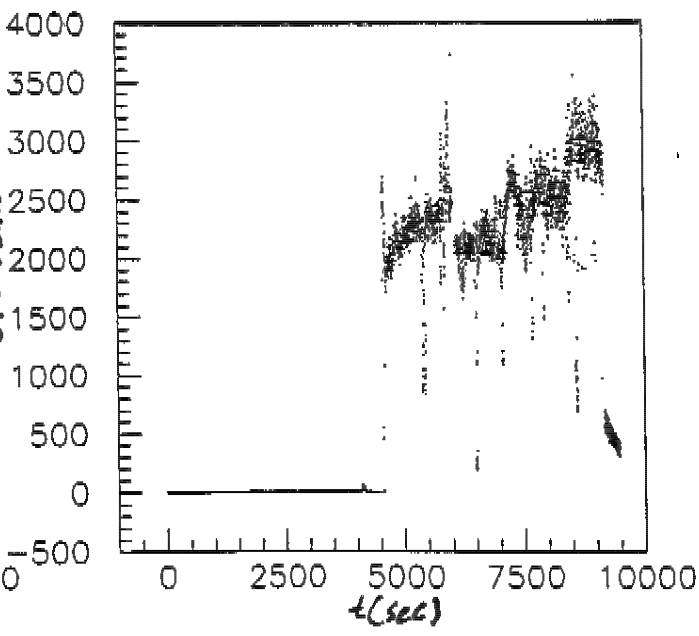
currzep VS. timsec



(dvltz7-2.84)*48.0 VS. timsec



otzlc50 VS. timsec

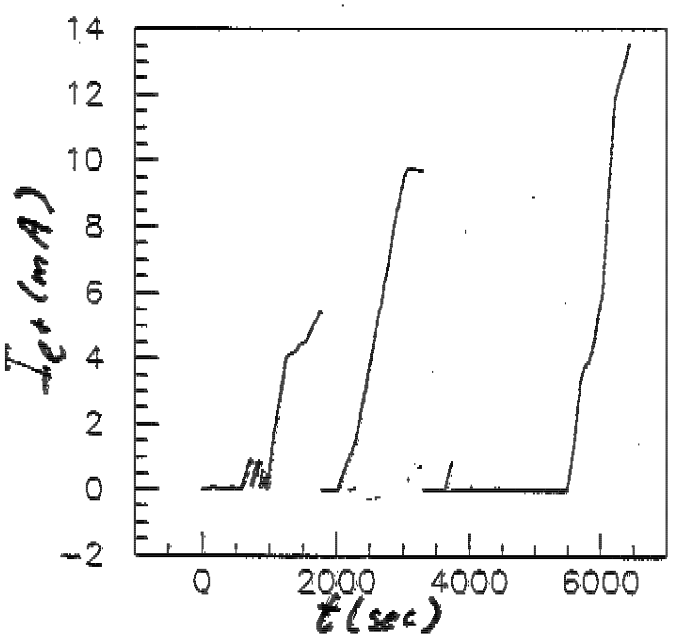


EFCz1 VS. timsec

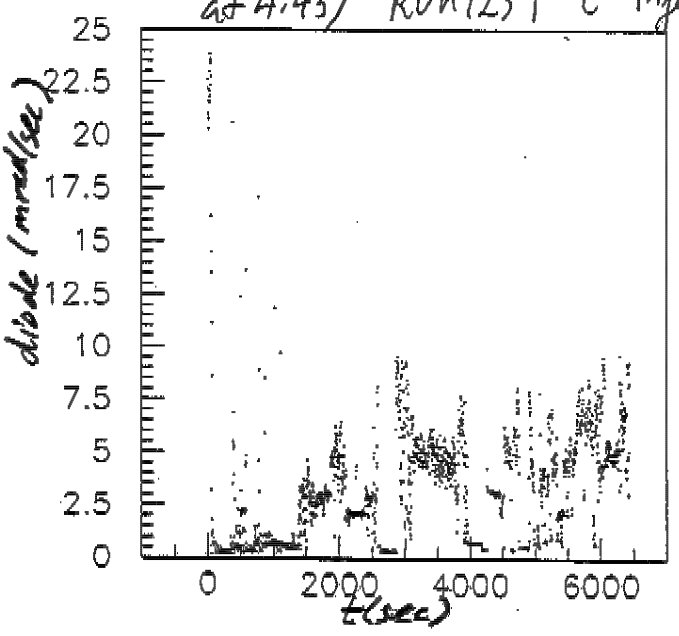
LER Injection Backgrounds (Feb 20th)

(Run ended at 4:43) Feb 20th 99/02/20 16.49

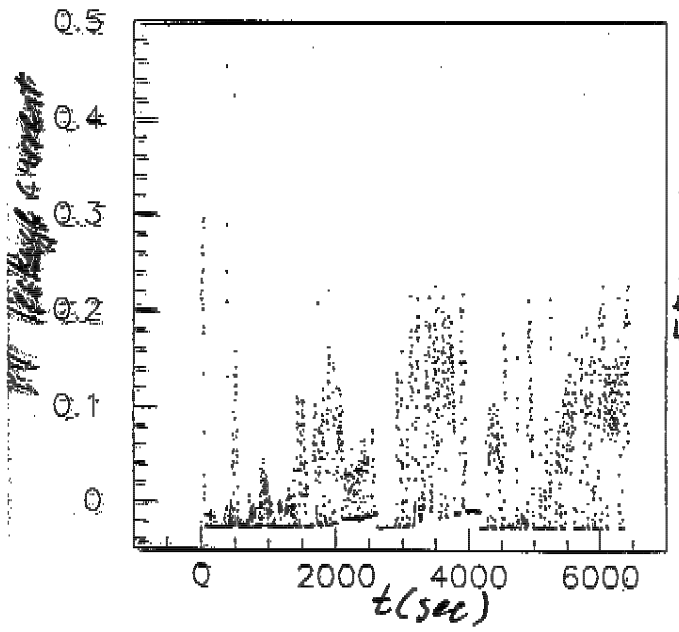
Run 1259 e^+ Injection



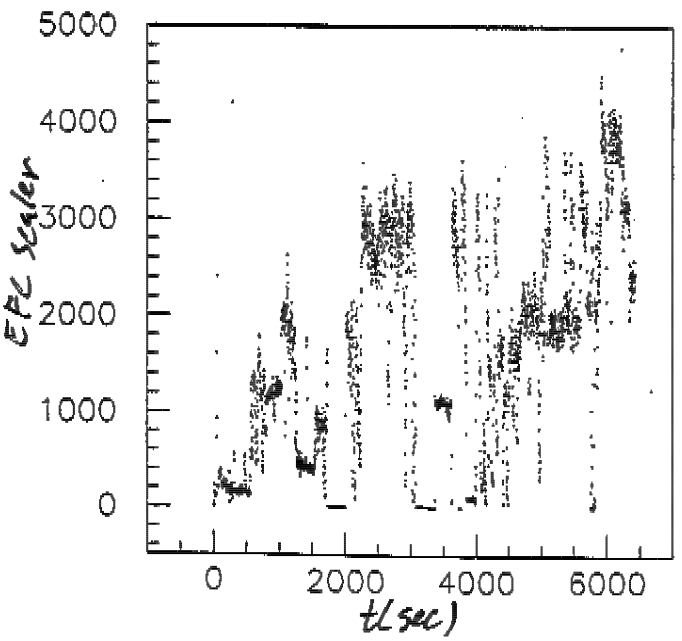
currzep VS. timsec



(dvltz7 − 3.02)*48.0 VS. timsec



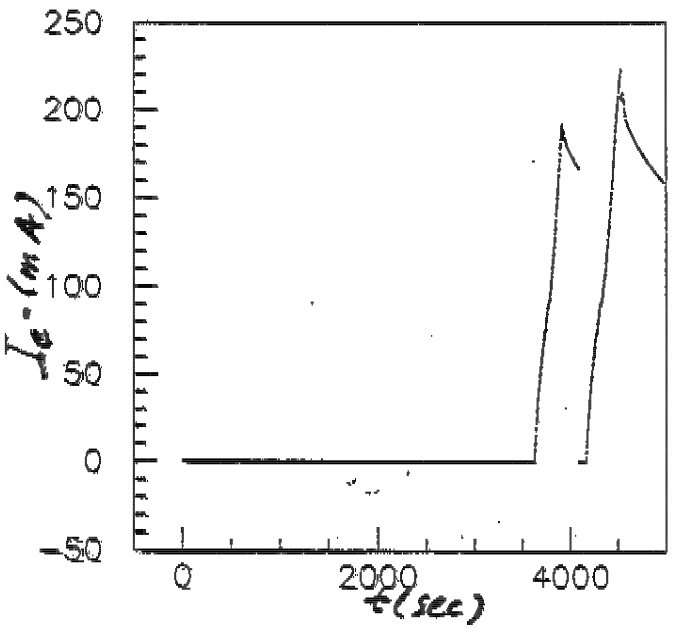
ptzlc50 VS. timsec



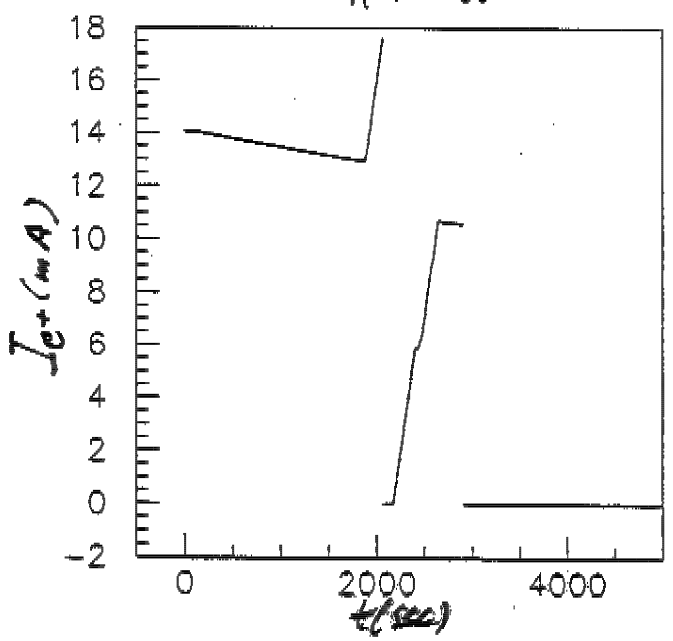
EFCz1 VS. timsec

LER and HER Injection Backgrounds (Feb 20th)

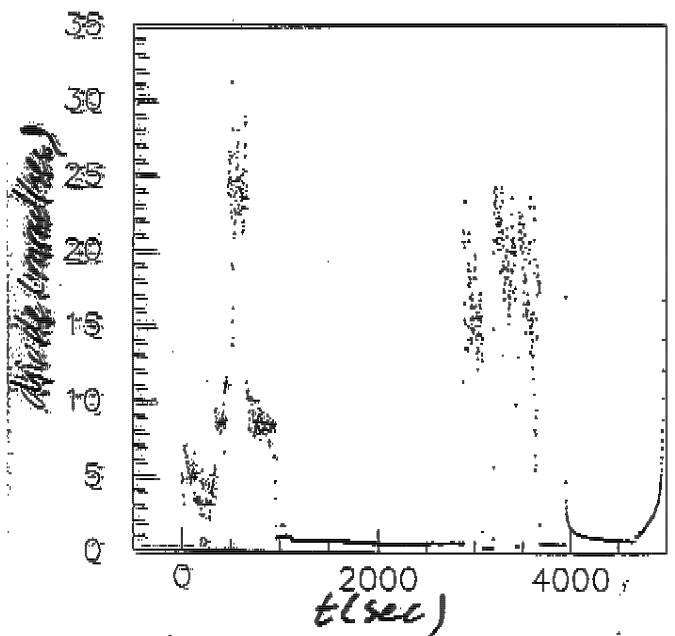
Feb 20th 99/02/20 16.52 .
Run 1260 e^+ and e^- Injection



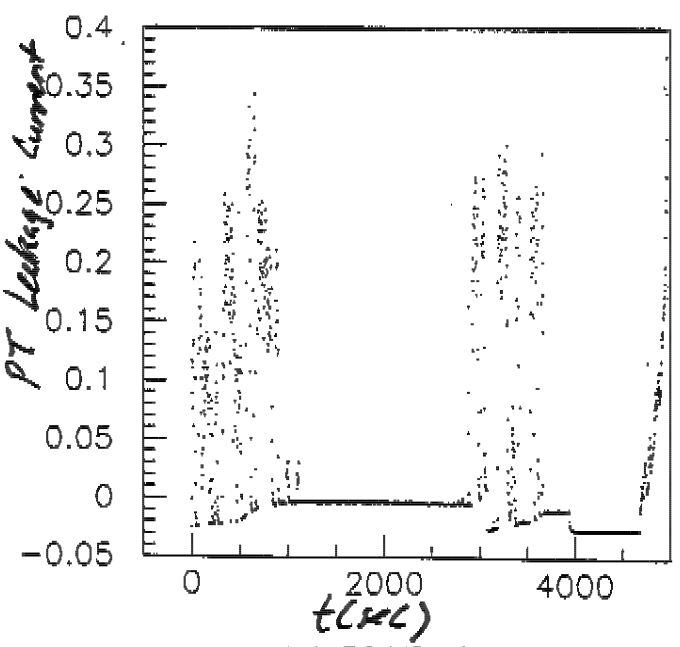
currzem VS. timsec



currzep VS. timsec



(dwltz7-3.02)*48.0 VS. timsec



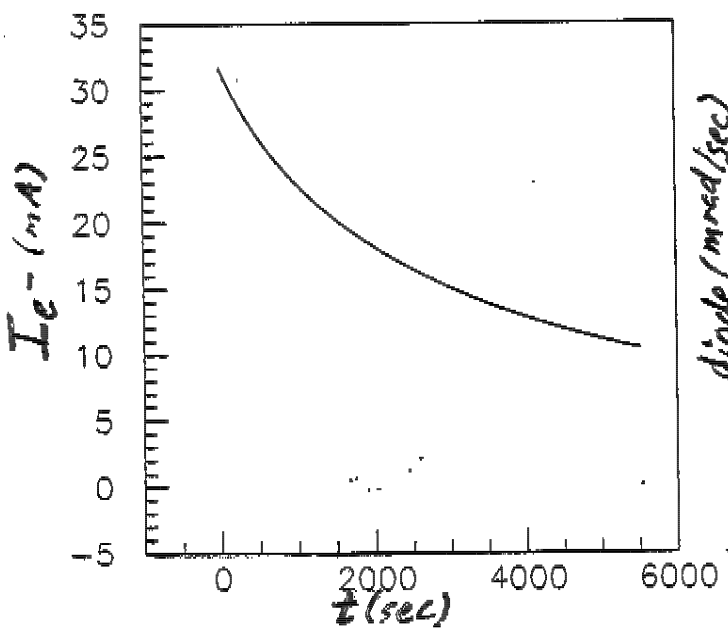
ptrlp50 VS. timsec

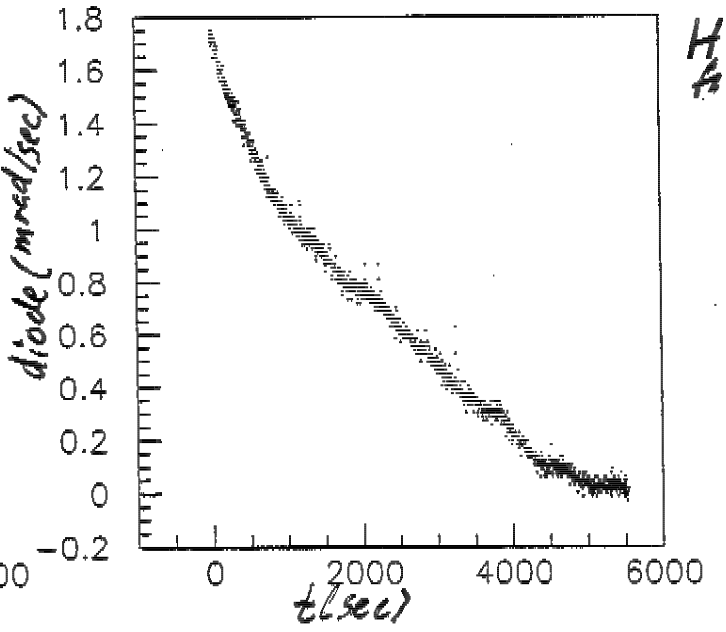
Before :

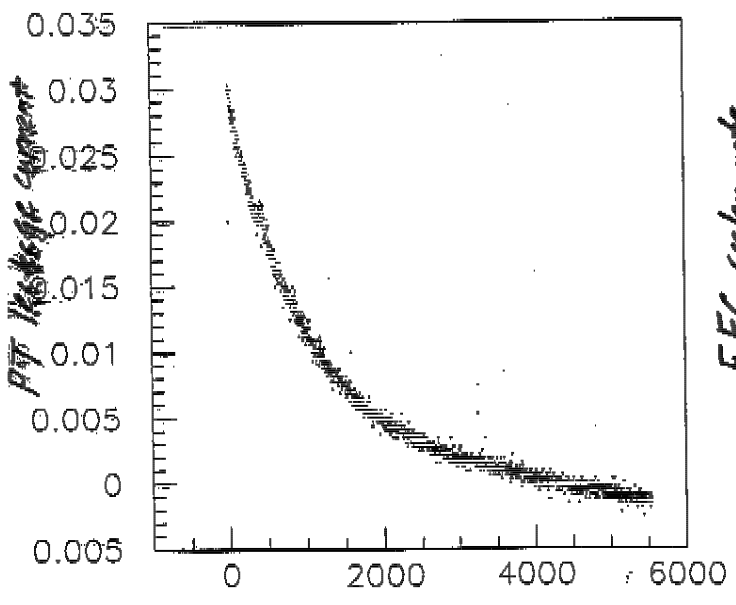
99/02/21 22.30

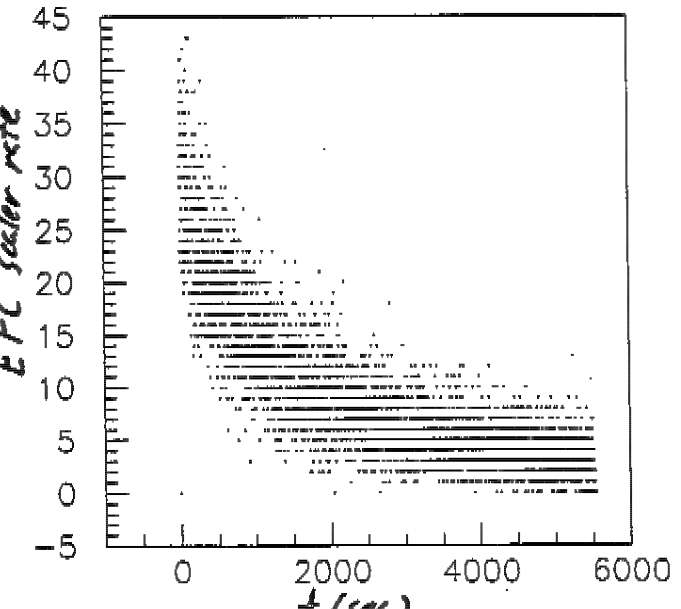
BEAST dedicated run Feb 7th

HER #11





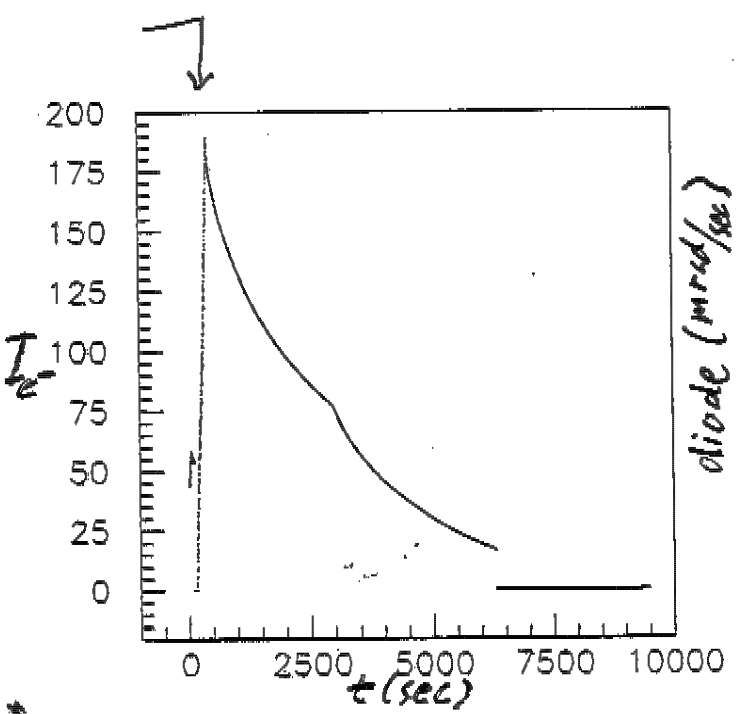




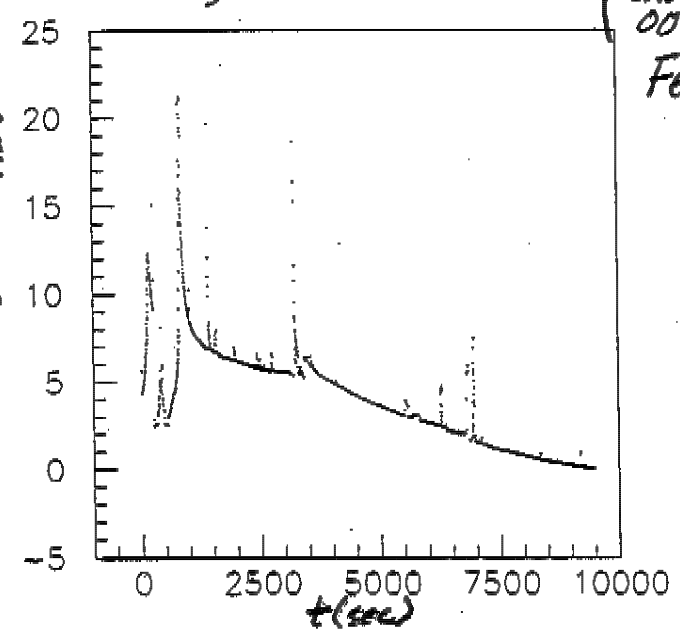
After: "Dust" Problem
and its effect on backgrounds

→ Backgrounds bursts during steady-state
→ Large drops in lifetime
→ Behaviour of B vs I_{beam} changes radically

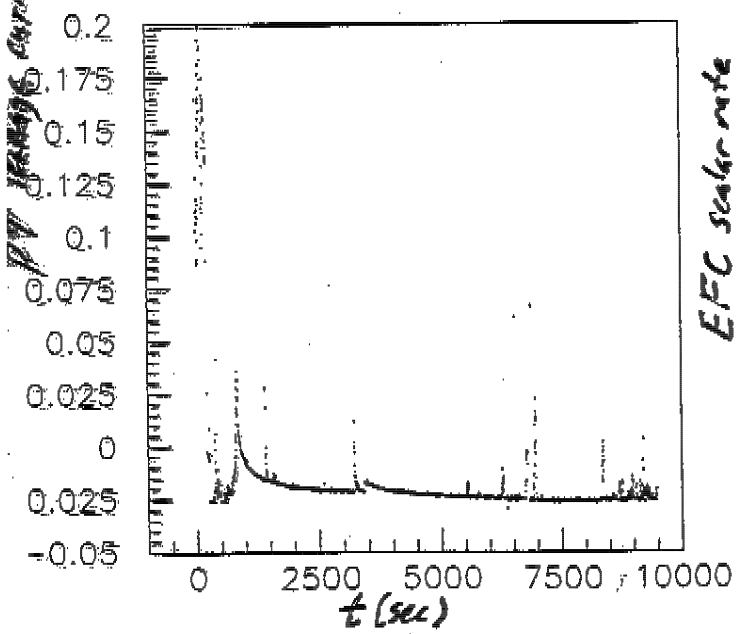
99/02/20 16.13
BEAST run 1257 (HER run ends at 00:52 Feb 20th)



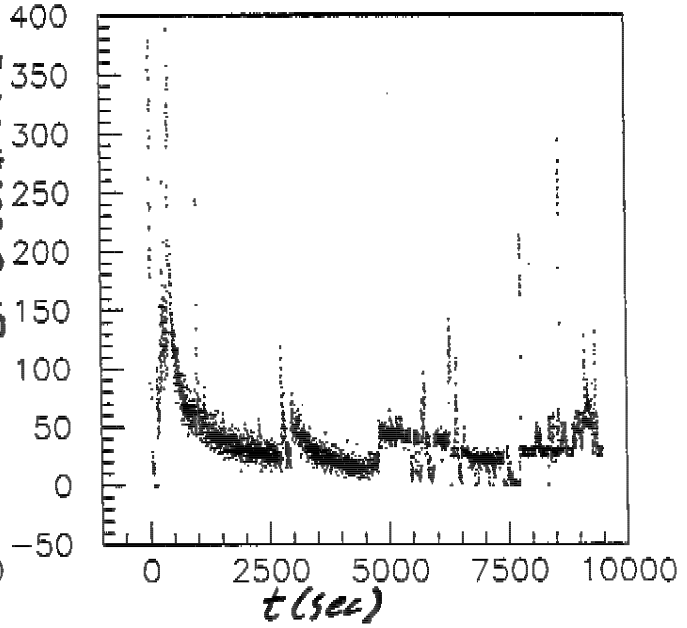
currzem VS. timsec



(dvltz7−3.05)*48.0 VS. timsec



ptzlc50 VS. timsec

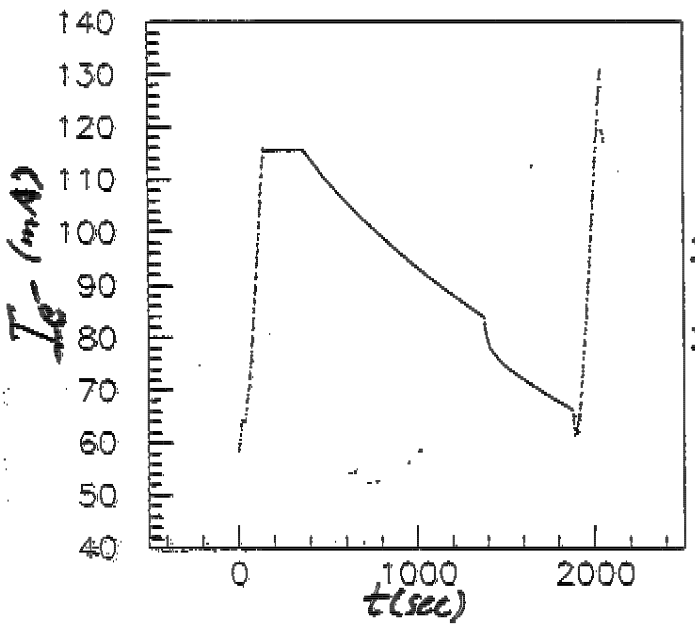


EFCz1 VS. timsec

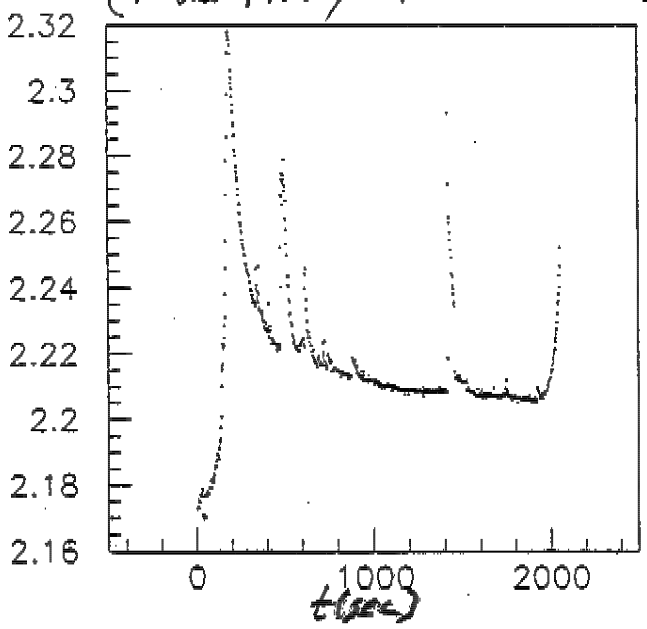
Another example of "dust"

99/02/20 17.22

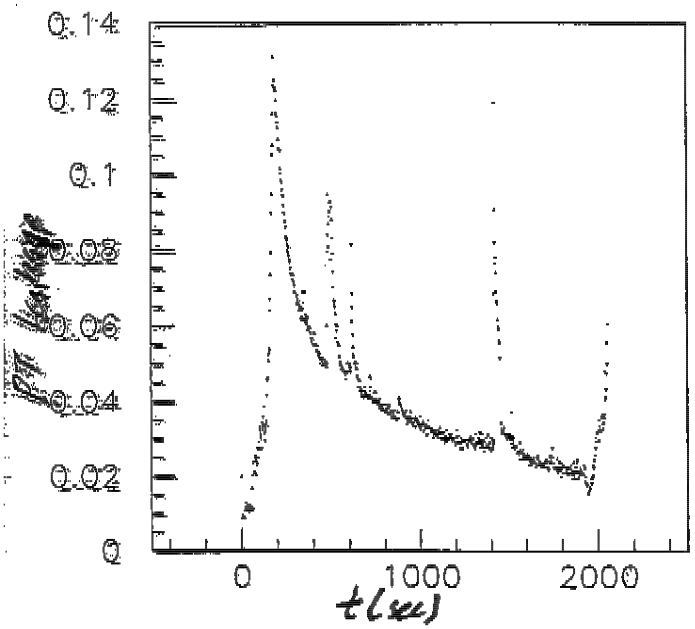
Feb 19 (rundate 14:51) Run 1252 e^- Injection + Fill



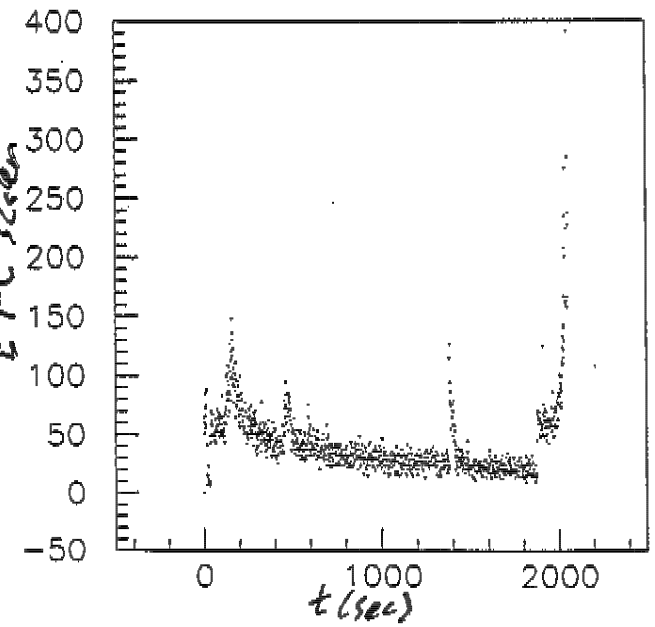
currzem VS. timsec



dvltz7 VS. timsec



otzlc50+0.02 VS. timsec

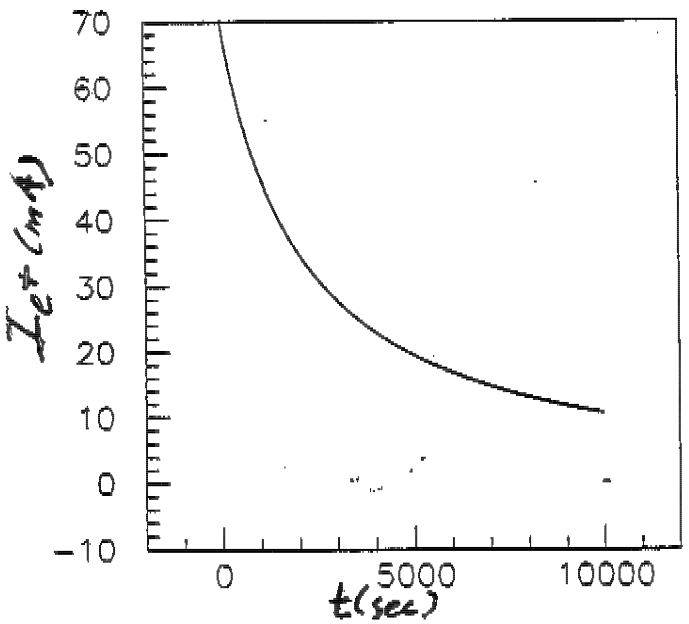


EFCz1 VS. timsec

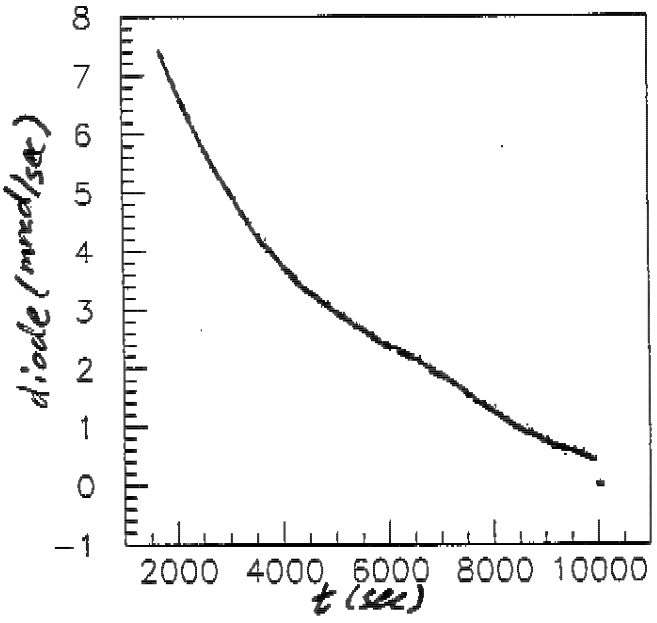
Dust is positively charged
⇒ no dust in LER

99/02/21 22.43.

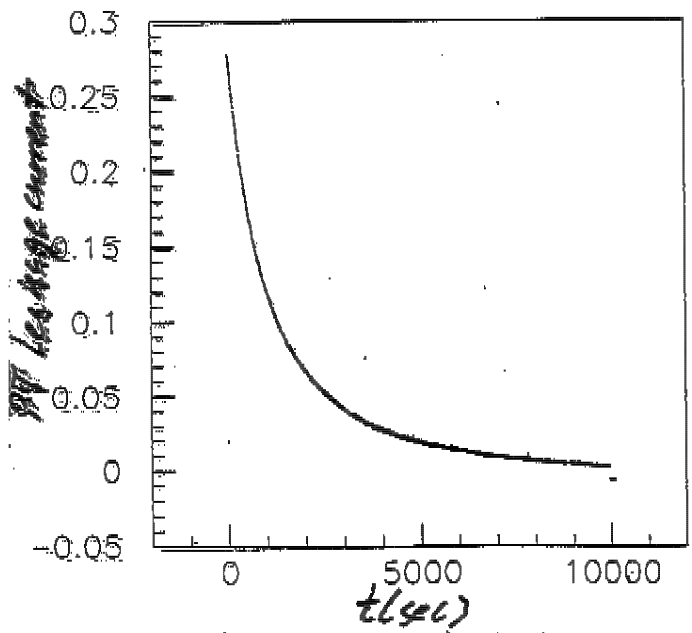
BEAST dedicated run Feb 7th
LER
fill



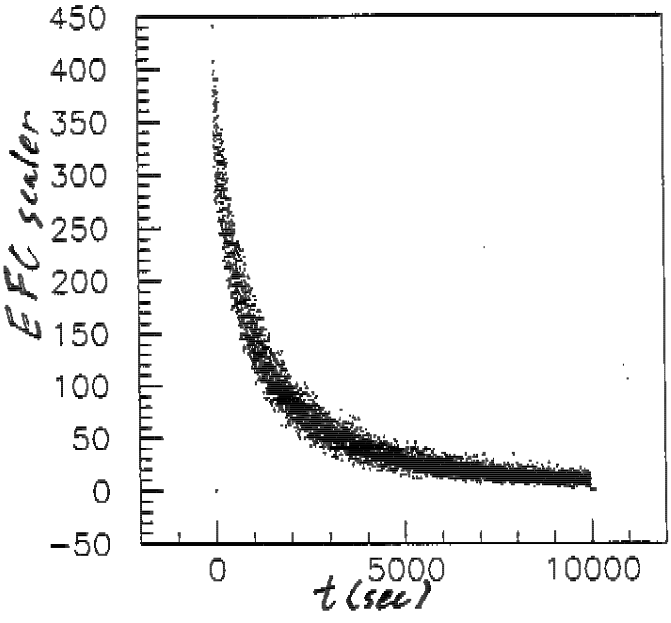
currzep VS. timsec



(dvltz7−2.845)*48.0 VS. timsec



(ptzlc50+0.02) VS. timsec



EFCz1 VS. timsec