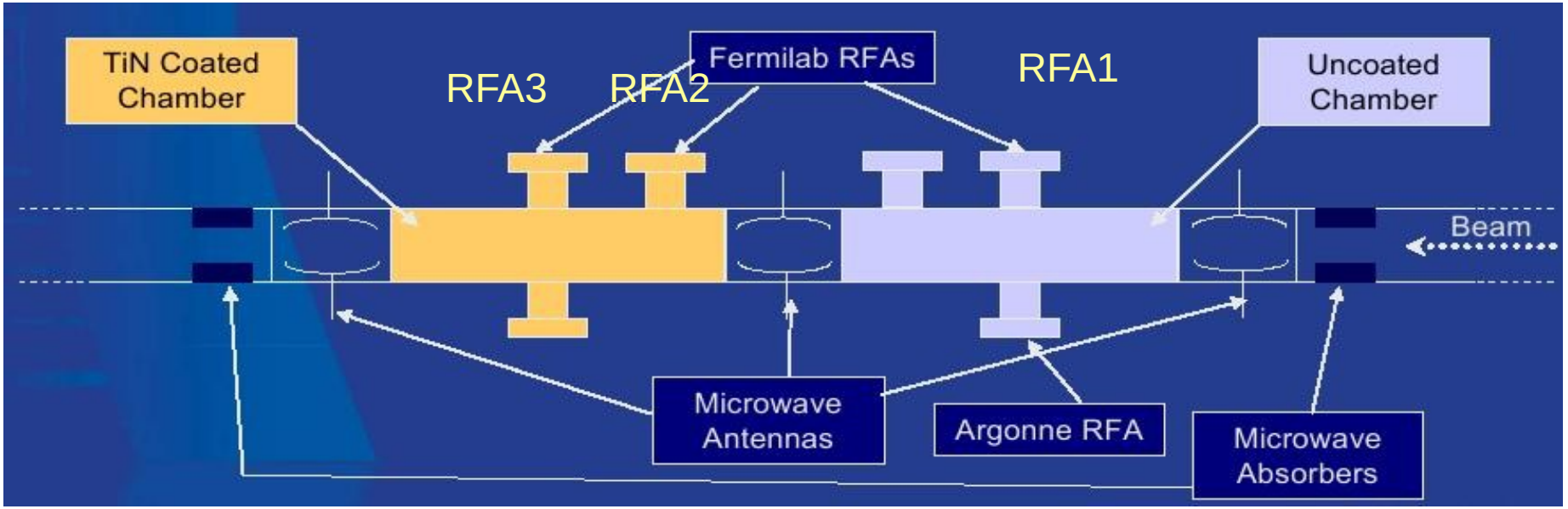
Ecloud Energy Distribution

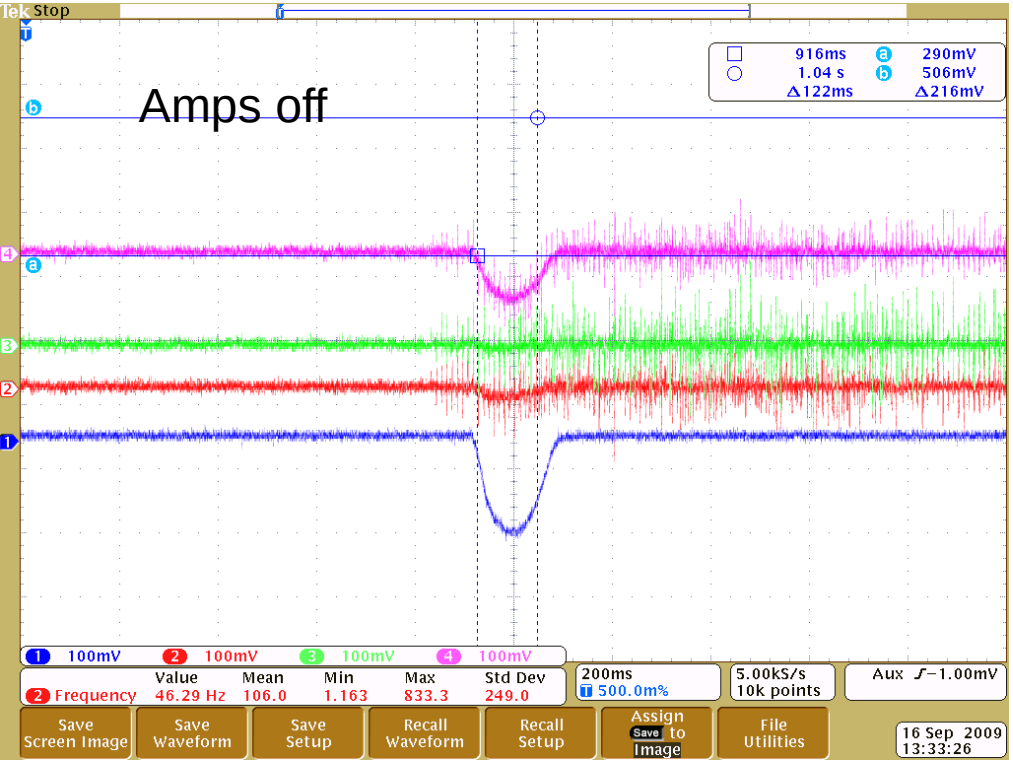
C.Y. Tan
24 Sep 2009

Setup

Picture is from Bob's talk at
Project-X Meeting

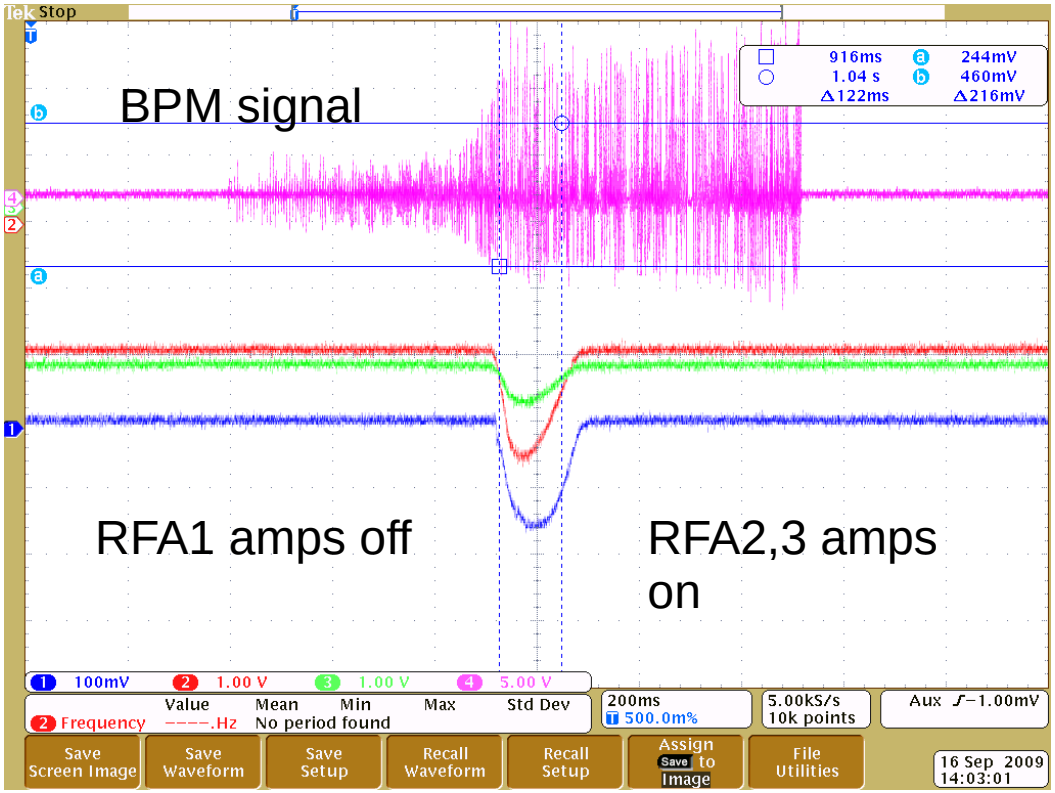


Data taken on 16 Sep

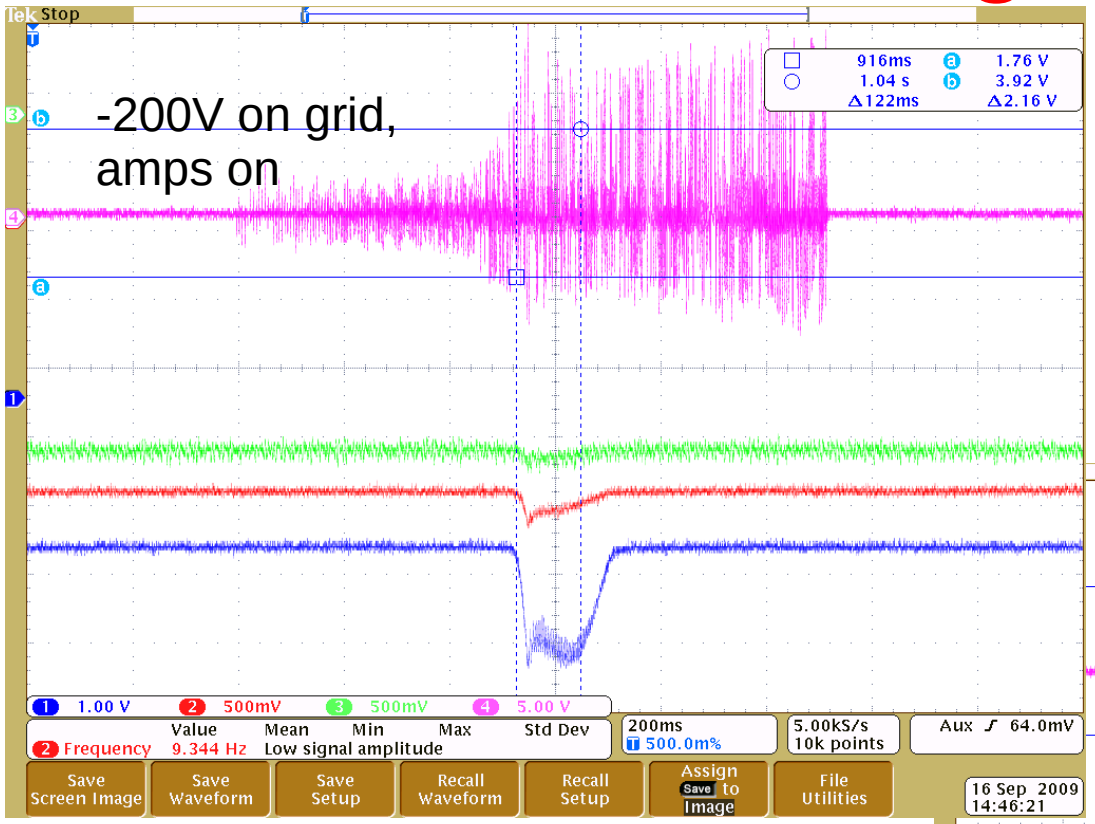


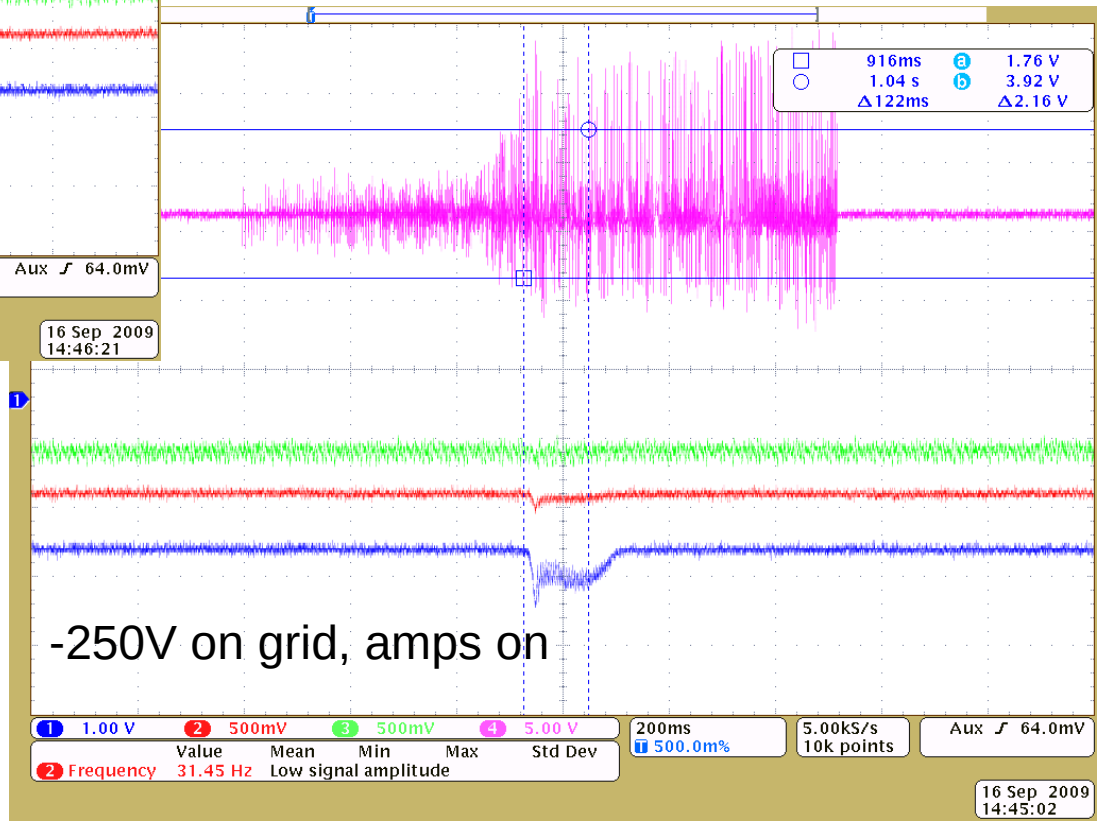
RFA3 signal ~10x smaller than RFA1. Beam current is 12e12.

RFA1 signal about -150mV peak

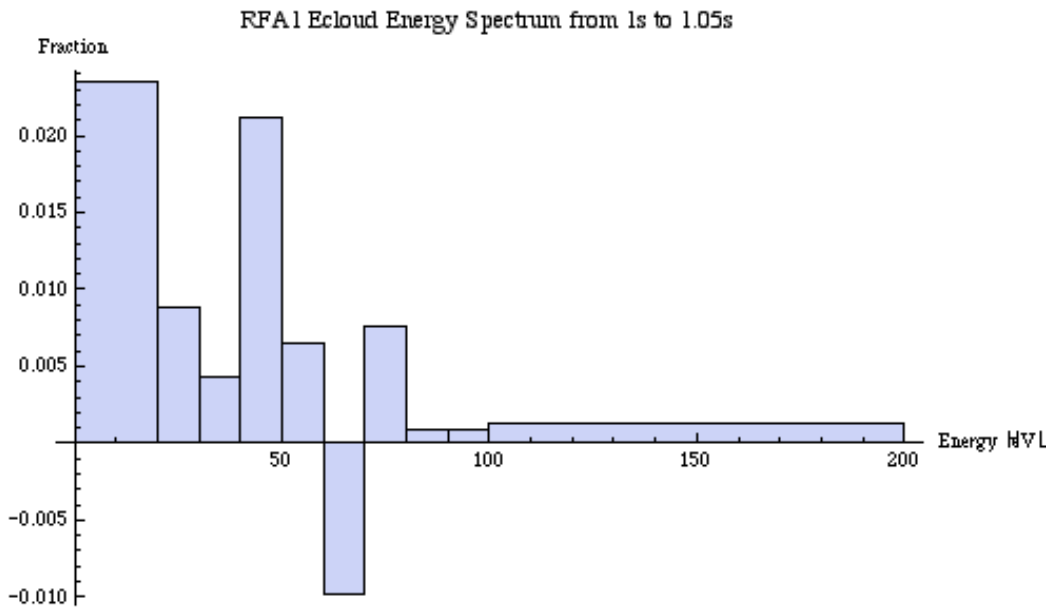


Interesting Structures





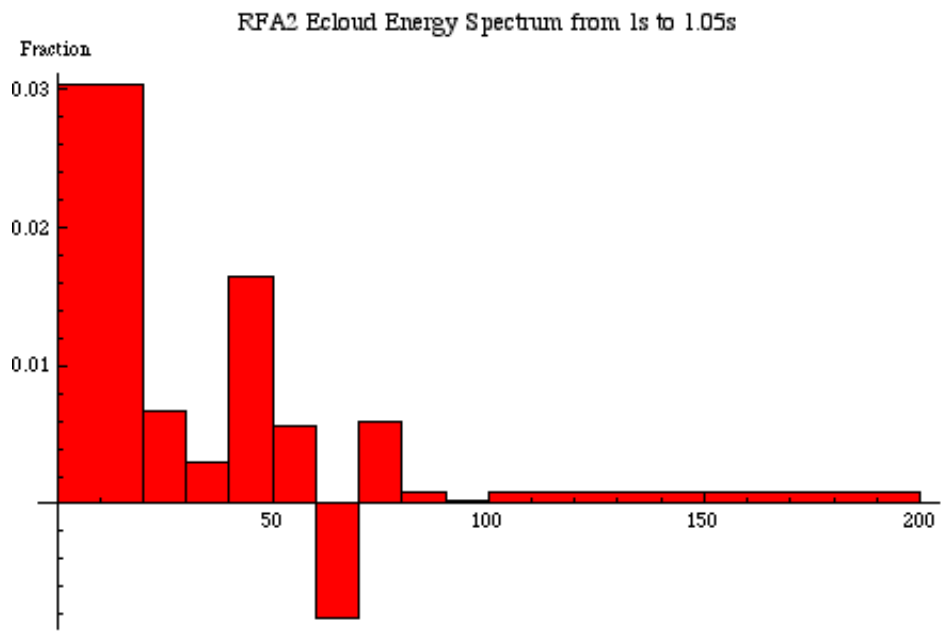
Energy Spectrum

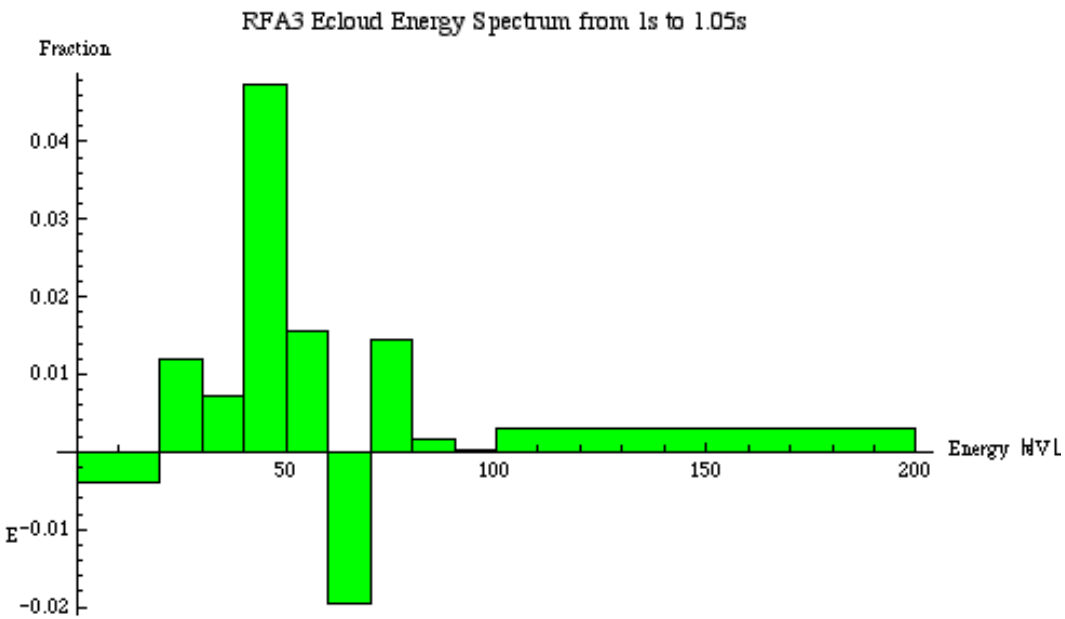


RFA2,3 amplified.
Ignore 0-20eV?
Max energy around 40-50eV.

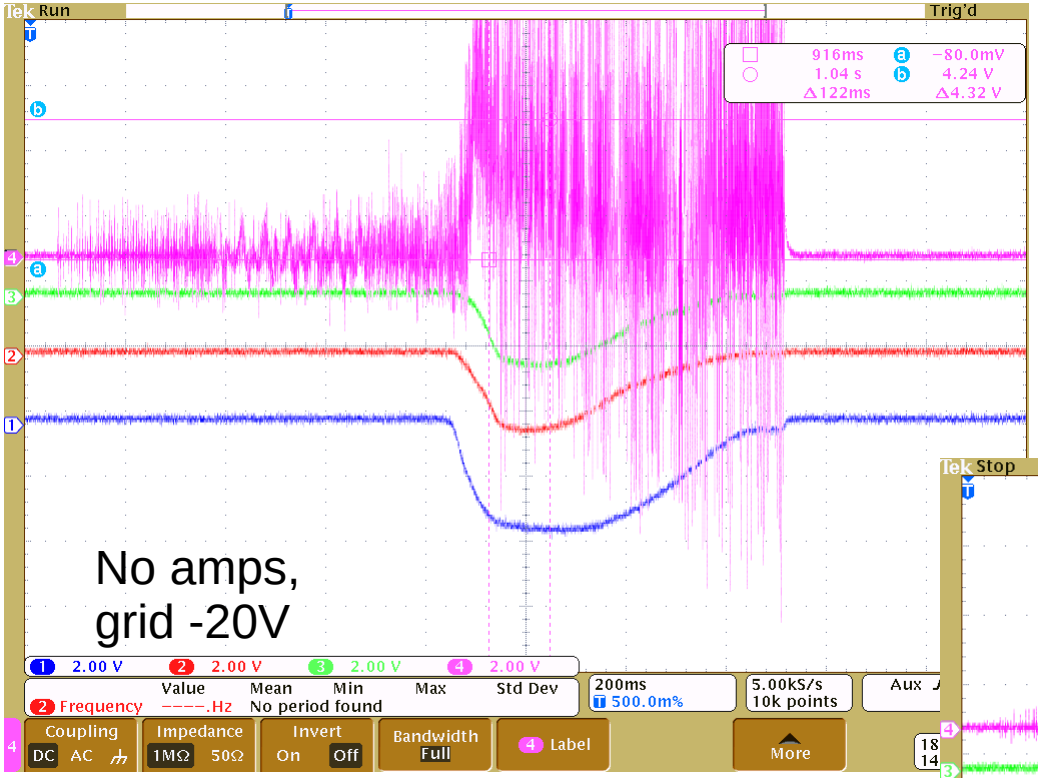
Definition of fraction:
Qtot = all the charge in the time slice 1 to 1.05 s at "0" volts

Fraction = total Q in energy slice (e.g. 20 to 30V) in time slice 1 to 1.05s /(Width of energy slice * Qtot).

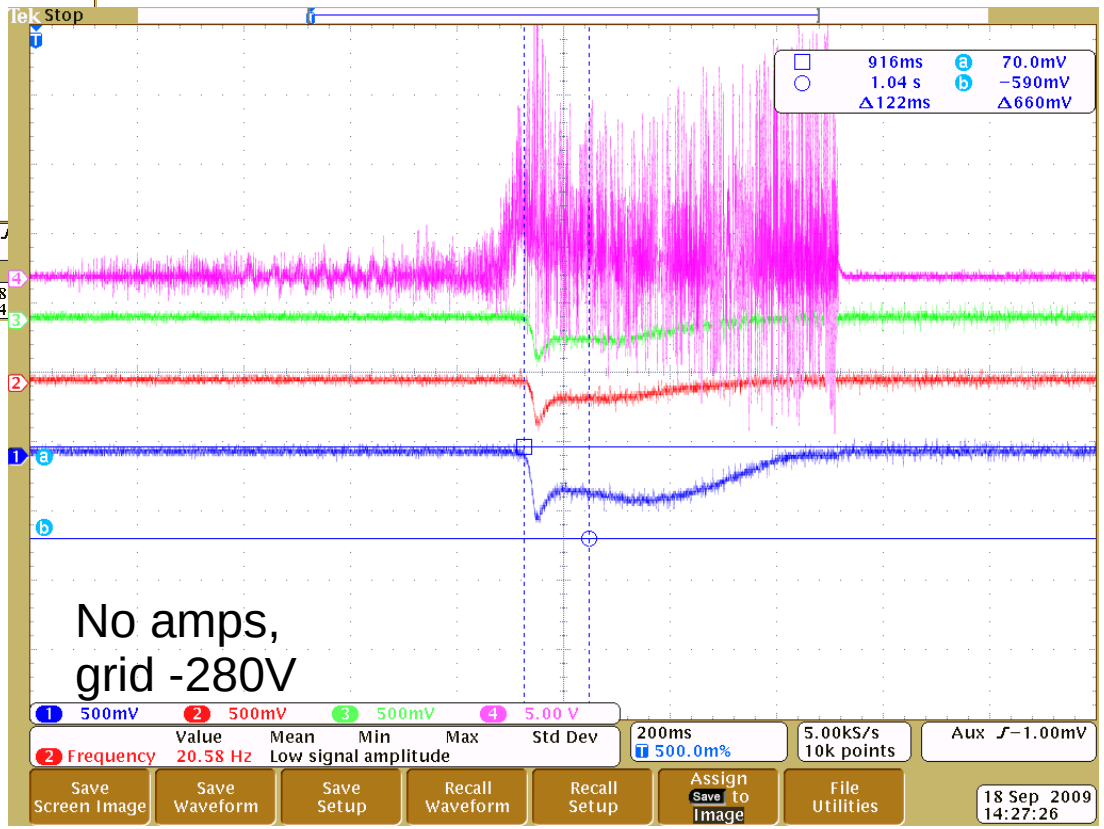




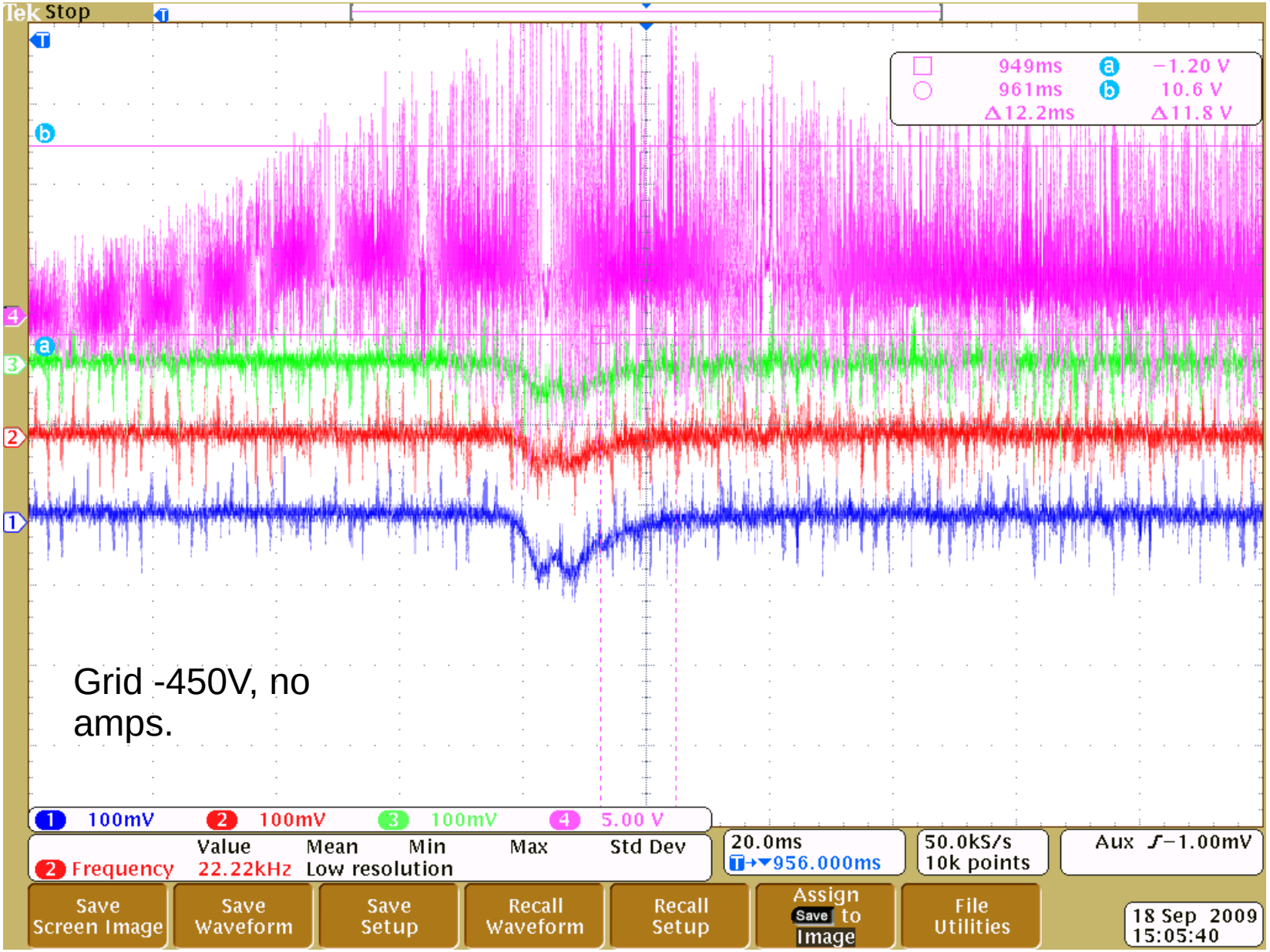
Data taken on 18Sep



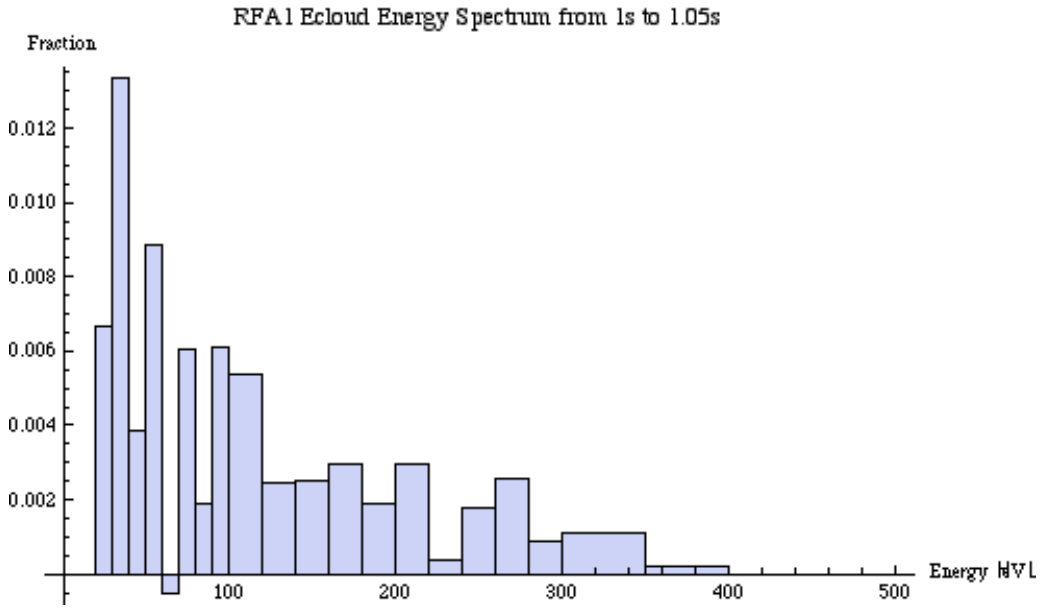
Beam current 30e12, RFA3
only 2x smaller than RFA1



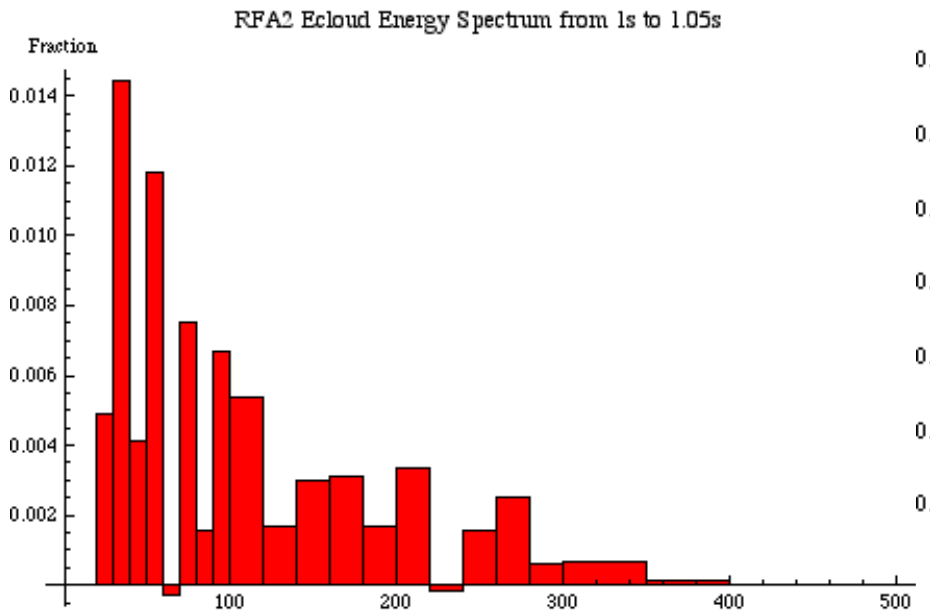
Zoomed in data

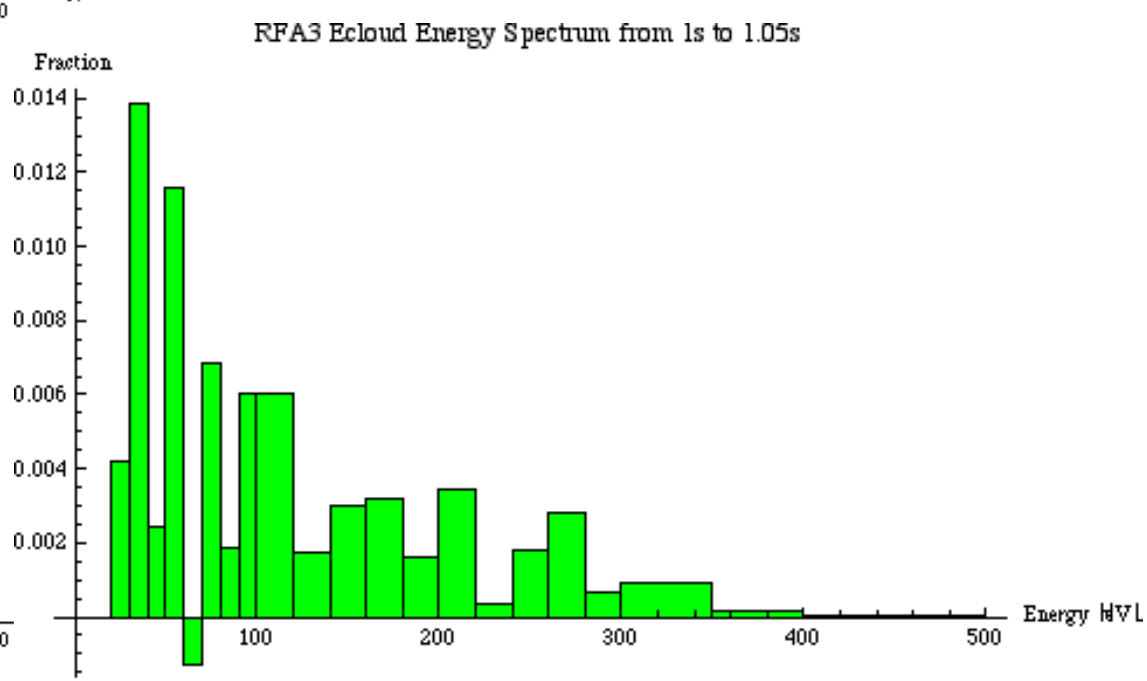


Ecloud Energy Spectrums

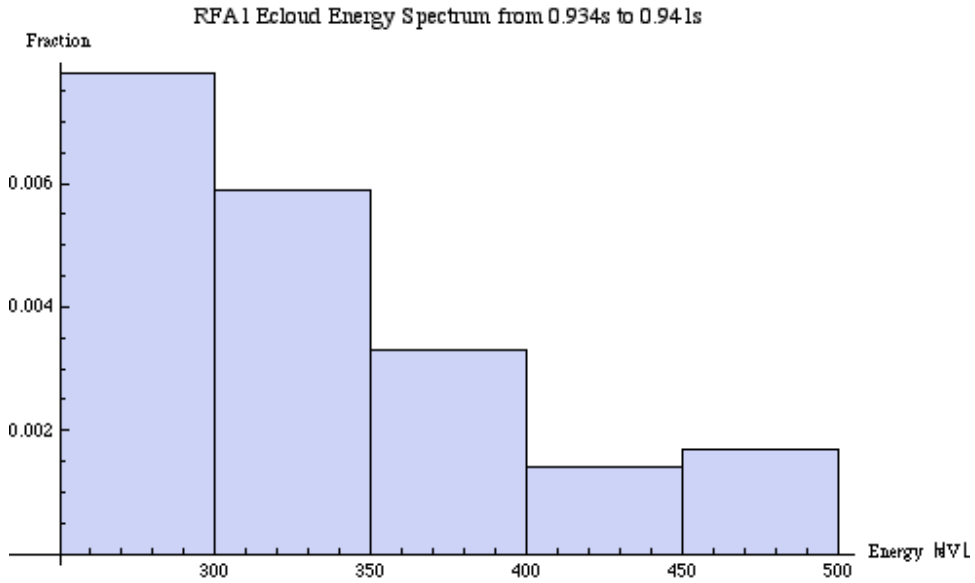


Distribution around 1 to 1.05s, near max dip.

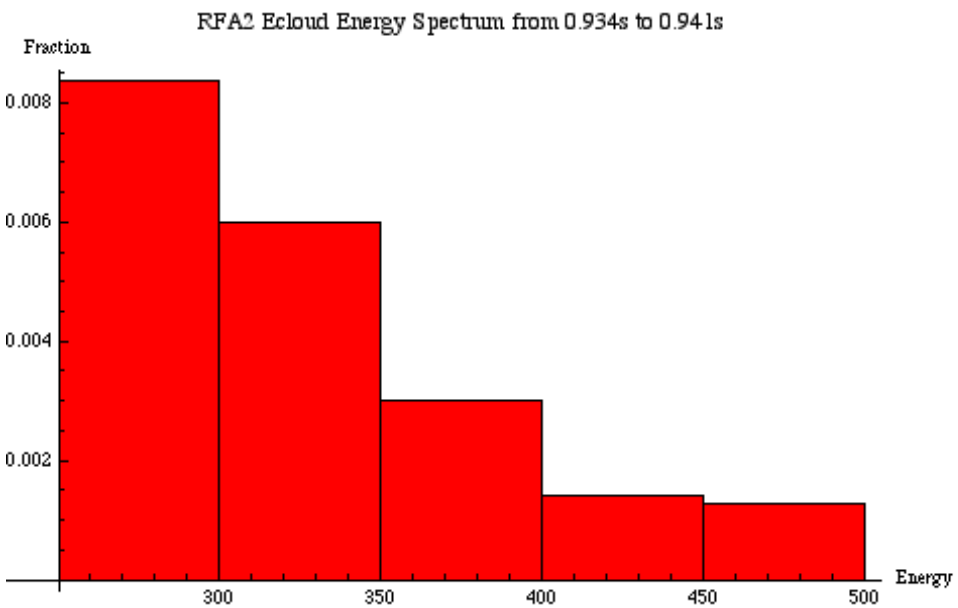


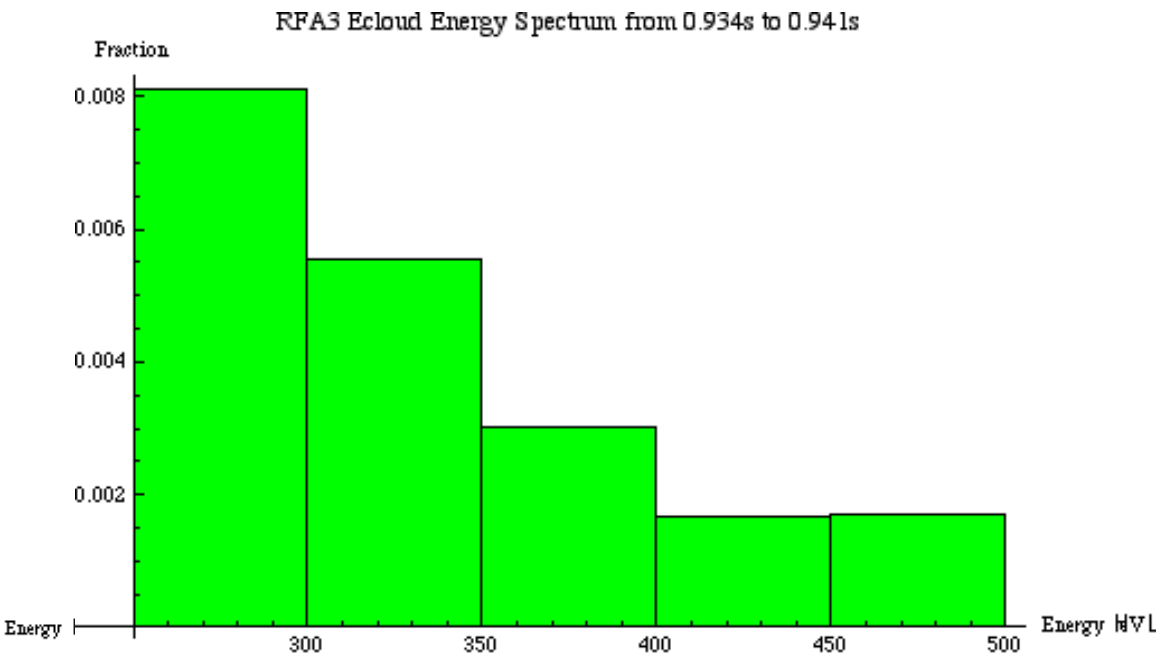


Zoomed in Energy Spectrum (Dip1)

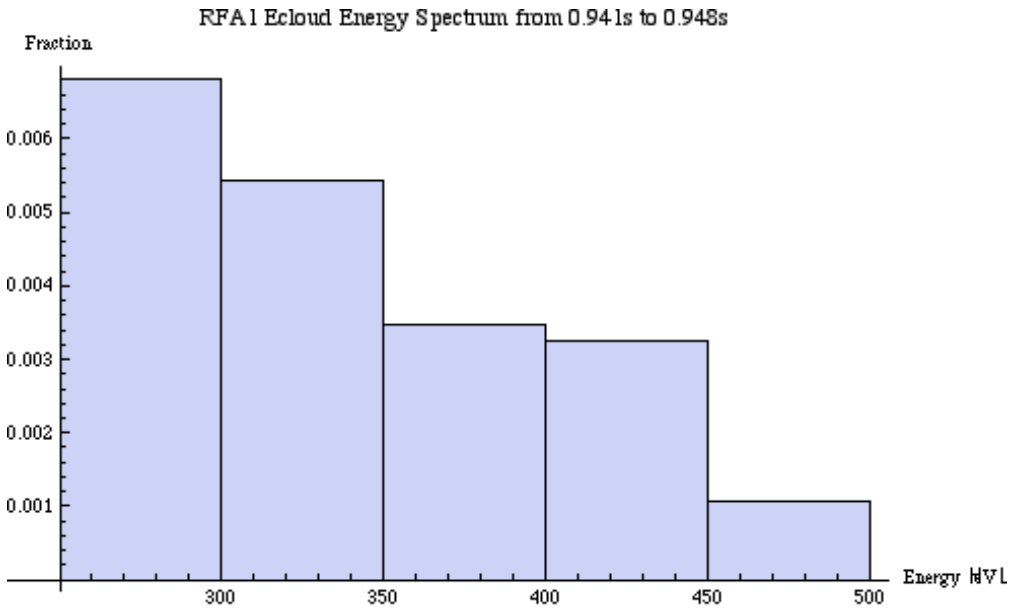
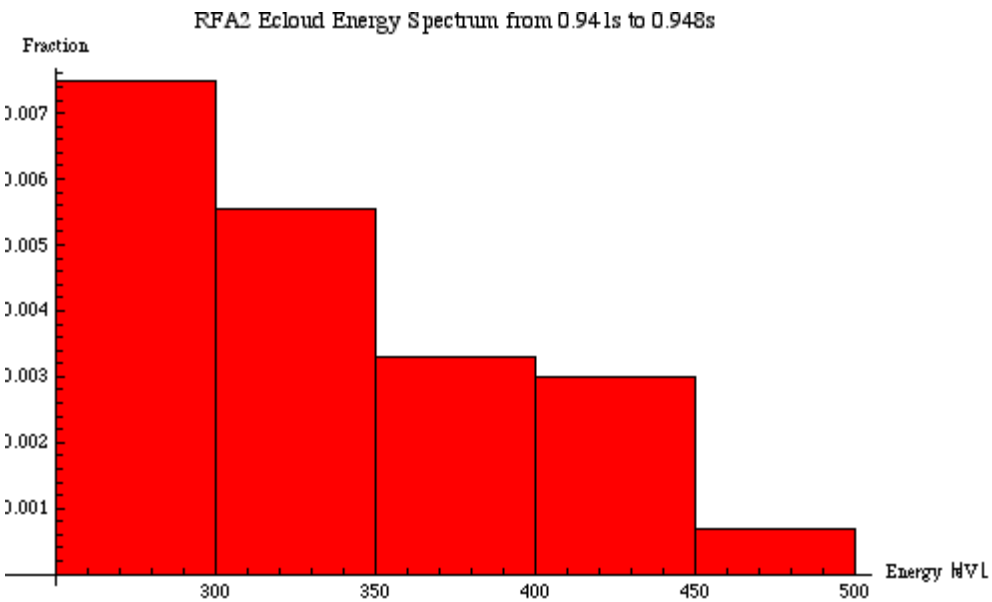
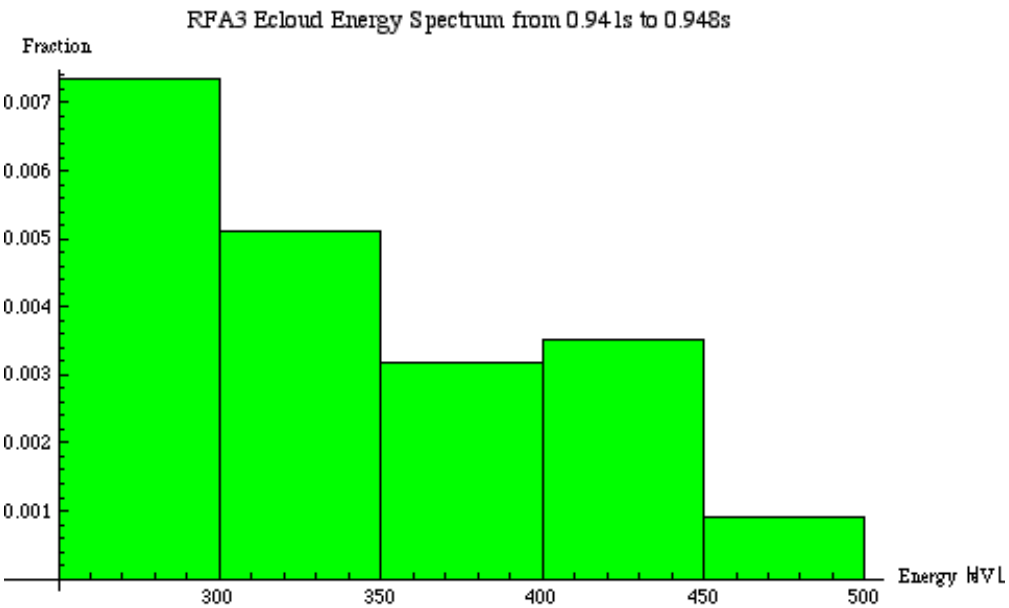


0.934 to 0.941 s





Zoomed in Energy Spectrum (Dip2)



0.941 to 0.948 s