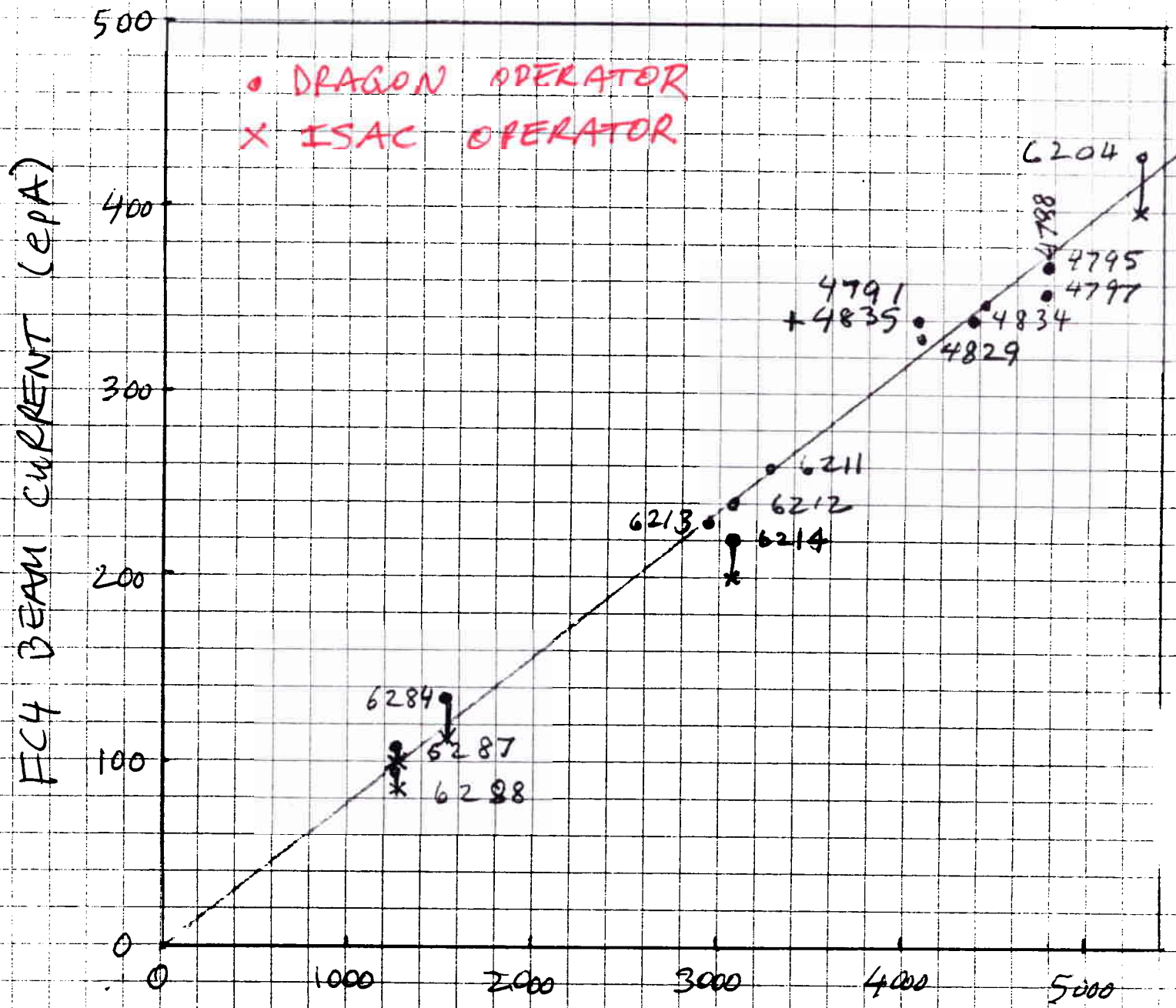


FC4 CURRENT VS BETA MONITOR RATE



MONITOR RATE (Hz)

BEAM LIVE-TIME CORRECTED
 $= (\text{SCALER\#10}) / (\text{TIME} * \text{BLT})$

LINE "FIT": BEAM (COWL) = $(.079 * \text{SCALER\#10})^{10}$
 BEAM PARTICLES = $\frac{.079 * 10^{-12}}{5 * 1.6 * 10^{-17}} * \text{SCALER\#10}$
 $= 9.9 * 10^4 * \text{SCALER\#10}$

July 13 Jun 02

MEMO

June 16, 2002

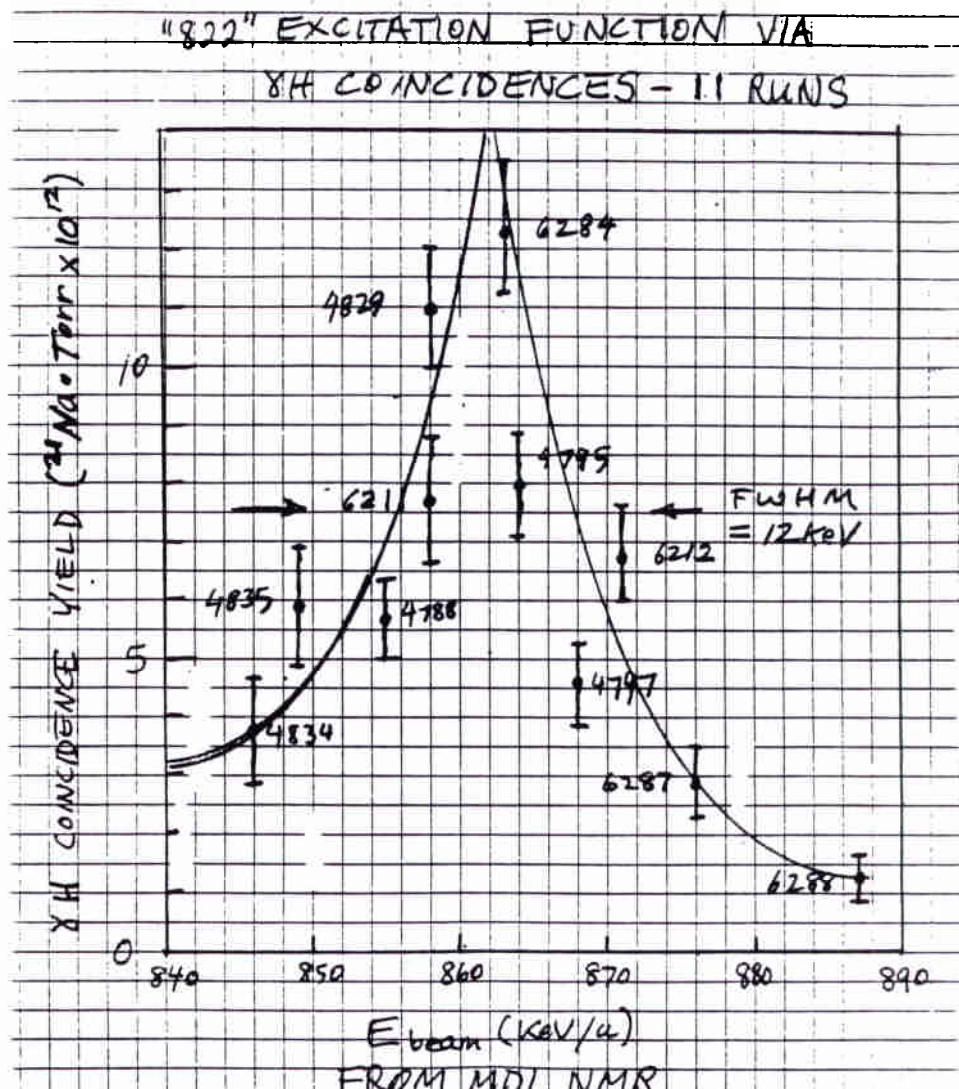
To: S.Bishop, L.Buchmann, M.Chatterjee, A.Chen, J.D'Auria, S.Engel, D.Gigliotti, D.Hunter, D.Hutcheon, C.Jewett, M.Lamey, A.Olin, and D.Ottewell, *C. Wrede, A. Laird*

From: Joel Rogers

Re: "822" Resonance Width from Gamma-coincidence Analysis

For 15 high-stats runs, 7 from 2001 and 8 from 2002, I estimated beam energy-spread from the gamma-time vs r.f. width (over). I rejected one run, #6213, due to its abnormally large time width. Following Dave's June 13 memo, I also eliminated #4791, #6204, and #6214 because they measured a bad elastic cross-section. Finally, I adjusted the energy of run #4834 4 keV/u upward, to agree with its gamma-time. With these 4 omissions and 1 adjustment, the yield curve shown below was obtained. The FWHM of the "eyeball fit" curve is 12 keV/u, including at least 3-4 keV/u beam energy spread.

Varying beam-energy spread, as indicated by the time spreads (over) can be included in the fitting procedure, by extending Dave's method from his June 13 memo. I believe we must do this before publishing a resonance width. If we used only the statistical errors (shown below), we would get a bad chi-squared value, which would leave unanswered the question of energy-spread effects.

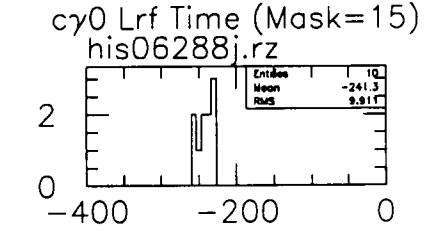
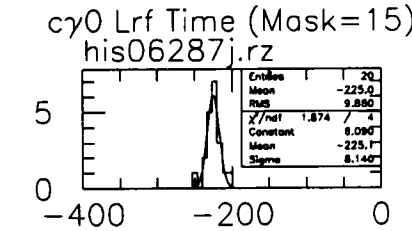
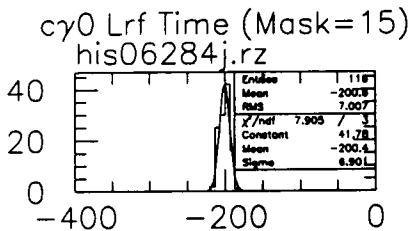
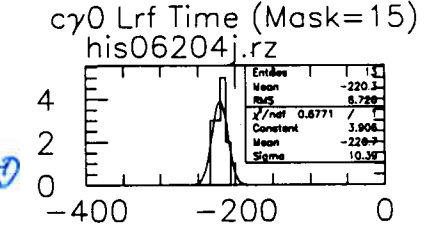
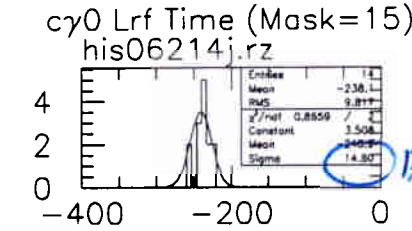
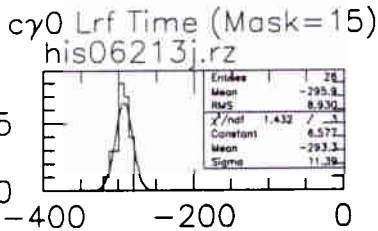
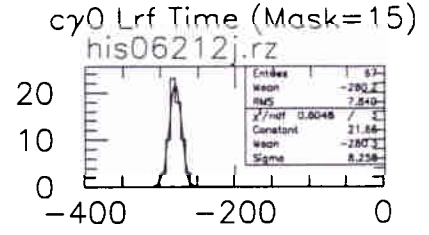
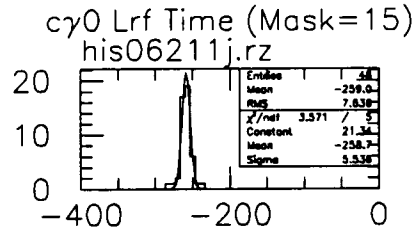
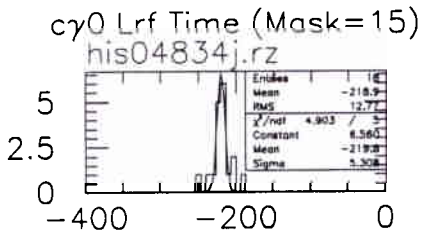
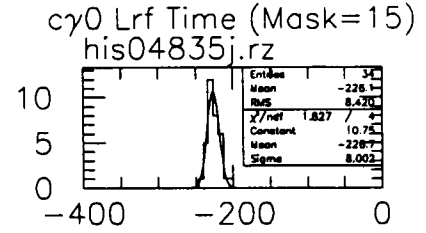
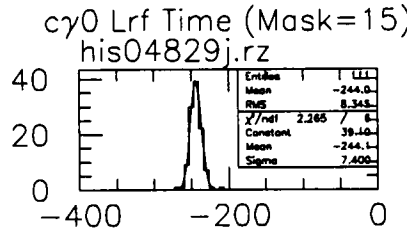
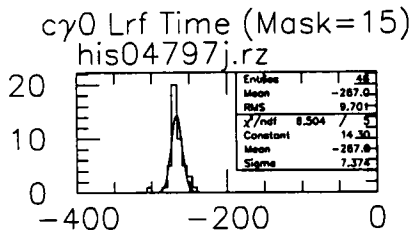
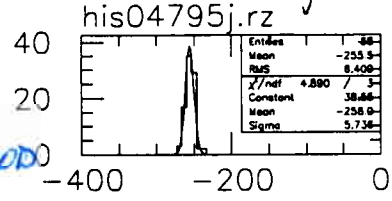
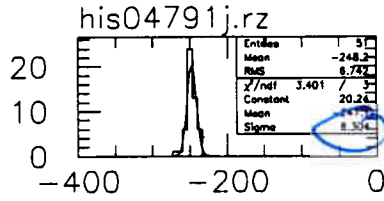
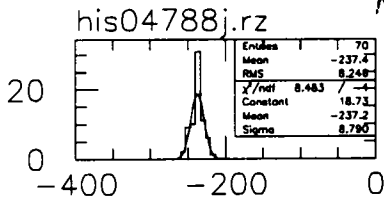


BEAM ENERGY SPREAD (σ) FROM γ TIME

2002/06/12 07:15

new
Check of Lrf-offsets with all high-stats 822 keV/u runs

jun 12a.ps



cy0 Lrf Time (Mask=15)

cy0 Lrf Time (Mask=15)

cy0 Lrf Time (Mask=15)

Joel 17 June 02