

How much Adduct is 8.7×10^6 counts?

$$\frac{8.7 \times 10^6 \text{ cpm}}{0.33 \text{ m}} = 2.636 \times 10^7 \text{ dpm}$$

$$\frac{2.64 \times 10^7 \text{ dpm}}{2.2 \times 10^6 \frac{\text{dpm}}{\mu\text{Ci}}} = 1.2 \times 10^1 = 12 \mu\text{Ci}$$

$$(12 \mu\text{Ci}) \left(0.027 \frac{\mu\text{M}}{\mu\text{Ci}} \right) = 0.324 \mu\text{M adduct}$$

$$\Rightarrow (478 \frac{\mu\text{g}}{\mu\text{M}}) (0.324 \mu\text{M}) = \underline{153.7 \mu\text{g adduct}}$$

How many μg does 6.875×10^6 counts

Represent? $\frac{6.875}{0.897}$

$$153.7 (0.8) = \underline{122.96 \mu\text{g adduct}}$$

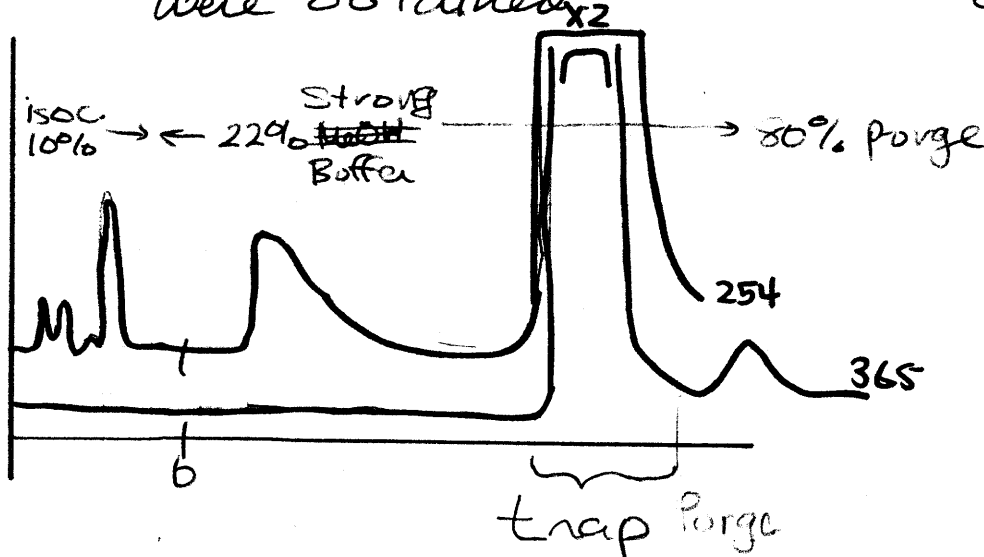
8-26-76 Further Processing of Pre-column Adduct
 (there may be some error here, because notes
 Column volume trapped : 5.4 ml not clear)

counts: $\left. \begin{array}{l} 635,555 \\ 673,204 \end{array} \right\} 644,379.5 \text{ c}/4 \text{ min}/100\mu\text{l}$

$\Rightarrow 1.611 \times 10^6 \text{ counts/ml}$

$\Rightarrow 8.699 \times 10^6 \text{ counts in entire sample.}$

This was reapplied to the Reare-Angel column - and the following results were obtained:



- the trapped volume was 5.5 ml (I think)
- counts: $250,000 \text{ counts}/4 \text{ min}/0.05 \text{ ml}$
 $= 1.25 \times 10^6 \text{ counts/ml}$

$$(1.25 \times 10^6 \text{ c/ml}) (5.5 \text{ ml}) = 6.875 \times 10^6 \text{ counts total}$$

which is the equivalent of
 of 122.9 μg adduct

8-26-76 Adduct Concentration

- rotary evap at 50°C
- final vol looks like $\sim 1\text{ ml}$ (maybe less) - it is stored in a pear-shaped vial.

Counting: to determine sample volume

5 μl	100,000 / 4	$\rightarrow 5 \times 10^6$ counts/ml
5 μl	50,000 / 4	$\rightarrow 25 \times 10^6$
5 μl	38,000 / 4	$\rightarrow 1.95 \times 10^6$

(*) (*) NOTE: the differences in counts probably was caused by the formation of insoluble material!

- note that there originally were
 6.8×10^6 counts / $123 \mu\text{g}$ 8
 8.7×10^6 counts / $154 \mu\text{g}$

$$\therefore \sim \boxed{5.5 \times 10^4 \text{ counts} / \mu\text{g adduct}}$$

- \therefore one roughly could estimate that 5 μl of this sample was about 1 μg of adduct.