Monday 24th Jan '55

Cell walls

some sediment at bottom of tube, but not noticably dirty

Pipetted off, leaving c 20ml residue in each tube.

"Washed" once more with distilled H_2O.

Took up in c small quantity of glass distilled water & labelled. put in frig. in c conical flask

Resin

Still smell of acetic. Washed over a period with about 1½ litres distilled water.

Taken up in 100cc H_2O.

Made up strong NaOH. 11.6 gms in about 25 ml. (heat evolved)

Added slowly (irregularly) over about an hour, with stirring.

No obvious evolution of heat (!)

"Washed" by decantation with glass distilled H_2O. About six times, a volume of about 800ml in all.

Put on filter paper (not a c funnel) - washed with g.d. H_2O, a wash about ½ litre. Left to stand overnight.

Hirs, Moore & Stein

178205
36
142.
Ans
Molarity

Their 0.2 M phosph. pH 6.47 ±0.02 buffer. ±

	MW.		
$NaH_2PO_4 \cdot H_2O$.	138.05	165.6 gm	in 10 litres.
Na_2HPO_4	142.05	113.6 gm	

·12
·08
·20

147
6.55

7.18
7.26

Buffer Try 3 molar parts Na_2HPO_4
to 1 molar part $Na_2H_2PO_4$

to give, at 0.2 M total P, pH ≃ 7.2

MW.	ie.		
358.17	$Na_2HPO_4 \cdot 12H_2O$. 0.15 M	=	53.72 gm per litre
156.03	$Na_2H_2PO_4 \cdot 2H_2O$ 0.05 M	=	7.80 gm per litre

78015

358.17
179.08
537.25

Tuesday 25th Jan. 55

Resin

Continued to wash with g.d. H_2O.
Probably used about 1 litre, but pH only fell to 11.0
Got fed up and proceeded to next step.

Made 3N HCl by diluting conc. ~~to~~, 60 cc made up to 200 cc
Passed through resin on filter paper, but went very rapidly, so
worked up bottom of filter & left to soak in HCl. (started ~ 2.30 pm)
at about ~~5.30~~ 5.0 started to cycle through again. Went through twice.
~~Cost~~ Worked up again while I went to a lecture.

After lecture (~ 6.00 pm) ran out HCl.
Washed with water on filter paper ~ a litre, & left overnight.