

SCHEDULE 2

METHODS OF ANALYSIS

9g.

EXTRACTION OF PHOSPHORUS BY JOULIE'S ALKALINE AMMONIUM CITRATE

Extraction

7.1 Weigh to the nearest 0.0005 g, 1 g of the prepared sample and place in a small mortar (glass or porcelain). Add about ten drops of ammonium citrate solution (4.1) to moisten it and break it up very carefully with a pestle. Add 20 ml ammonium citrate solution (4.1), mix to a paste and leave it to settle for about 1 minute.

Decant the liquid into a 500 ml graduated flask straining off particles which might have escaped the preceding moist disintegration. Add 20 ml ammonium citrate solution (4.1) to the residue, grind as above and decant the liquid into the graduated flask. Repeat the process four times, so that by the end of the fifth time all the product can be poured into the flask. The total quantity of ammonium citrate solution used for these processes must be approximately 100 ml.

Rinse the pestle and mortar above the graduated flask with 40 ml of distilled water.

Stopper the flask and shake for three hours on the rotary shaker (5.1).

Leave the flask standing for fifteen to sixteen hours, and then shake it again under the same conditions for three hours. The temperature during the whole process should be kept at $20^{\circ} \pm 2^{\circ}\text{C}$.

Make up to the volume with distilled water and mix. Filter through a dry filter, discard the first portion of the filtrate and collect the clear filtrate in a dry flask.