

Soxhlet extraction

Definition: The process of transferring the partially soluble components of a solid to the liquid phase using a Soxhlet extractor. The solid is placed in a filter paper thimble which is then placed into the main chamber of the Soxhlet extractor. The solvent (heated to reflux) travels into the main chamber and the partially soluble components are slowly transferred to the solvent.

a) Extract samples with ether for a period of 4 hrs or more. Removes the fat, thus the loss of weight after drying/evaporation of ether = fat.

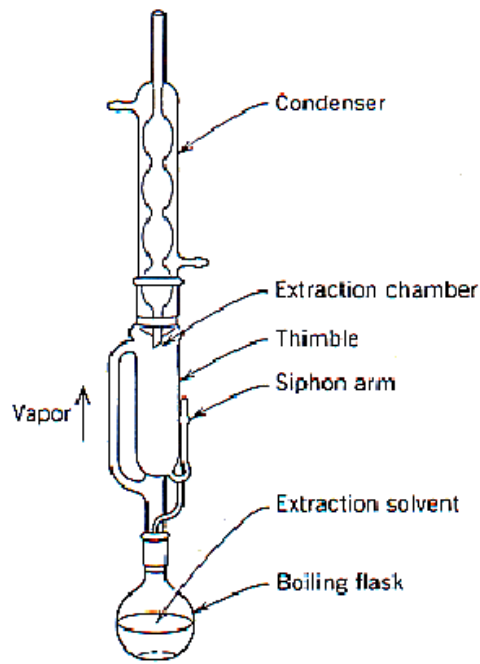
b) Includes any ether-soluble compounds, including some non-nutritive compounds such as chlorophyll, volatile oils, resins, pigments, and plant waxes (which are of little value to animals) as "fat".

Crude fat - The portion of a feed (or other material) that is soluble in ether; also referred to as ether extract.

The Procedure

1. Use sample dried and weight (W1)
2. Put the sample in filter paper and put them in soxhlet
3. Add ether on sample
4. Wait 4-5 hours and weight the sample (W2)

$$\text{Ether Extract} = \frac{W_1 - W_2}{W_1} \times 100$$



Soxhlet