ABSTRACTS

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A quantitative method for determining moisture and total fat by means of trichlorethylene distillation is described as follows: a 50-100 cc. extraction flask with a wide and long neck receives in the neck the paper extraction thimble with the sample. The trichlorethylene vapors from the extraction flask enter a condenser from above through a side-necked adapter and leave the condenser at the bottom to enter a U-tube which has its long arm graduated while the shorter arm is bent to return to the extraction flask, thus acting as an overflow and returning the solvent to the flask. The moisture collects in the graduated arm above the heavier trichlorethylene and is measured; this moisture collecting arm should be calibrated by blank runs against known weights of added water. Another condenser with a calcium chloride tube is mounted above the adapter to keep out moisture; the cooling water must be kept above 10°C. to avoid the formation of emulsions. *Chem.-Ztg.* 54,271-2(1930).

In a study of the physical chemistry of fatty acids, copper and aluminum were exposed to the conditions of an autoclave used in fat hydrolysis, operating at a pressure of 12 atmospheres for 1024 hours. The measured corrosion of copper by technical peanut oil at 188° was 0.009 gram per square meter per hour, of aluminum, 0.042 gm./sq.m./hr. Stearic acid corroded nickel to the extent of 0.62 gm./sq.m./hr. at 190°. The discoloration of technical fatty acids is not due to the influence of light. *Z. angew. Chem.* 42,1033-5(1929).

A dark brownish green fatty oil has been obtained from coriander seed oil after the distillation of the essential oil. This fixed oil showed a saponification number of 192, iodine number 93.81, refractive index 1.4688 at 26°. After two months the oil showed only a slight change in acidity and oxygen absorption. *Maslob. Zhirov. Delo.* 1929, No. 8, 25-6.

"Distillate olein" in a tinned can turned a dark brown color on exposure to air, because of dissolved iron; unexposed oleic acid of the same grade from freshly opened cans retained its original color. *Seifenseider-Ztg.* 57,205 (1930).

In a recently patented process for rendering fatty and oily materials with steam, the material is heated sufficiently high while restricting the escape of steam to develop disintegrating steam pressure in the material from the moisture present; the mass is agitated to assist the disintegration; simultaneously portions of the moisture are removed in the form of steam and the fats and oils present are melted, while maintaining the disintegrating pressure, until the moisture content of the solid residue has been reduced to between 17 and 35%. U. S. Pat. No. 1,761,480.

Triethanolamine has been shown to be well suited for emulsification purposes and to have a number of advantages over the usual inorganic bases used for this purpose. *Ind. Eng. Chem.* 22, 143-6 (1930).

The qualitative composition of silver black fox fat may be expressed in terms of the glycerides of palmitic, stearic, oleic and linolic acids. In its physical and chemical constants this fat bears some semblance to that of the wild fox. *Trans. Wis. Acad. Sci. Arts & Letters* 25, 113-6 (1930).

For the determination of the acid number of raw oils, linseed oil varnish or bodied linseed oil, 5 to 10 grams of the oil are dissolved in 50 cc. of a mixture of alcohol and ether or benzene. In the case of a resin, about 3 grams of the resin are dissolved in 75 cc. of a mixture of 2 parts of benzene and 1 part of alcohol. If the resin is not completely soluble, as in the case of certain copals, it is heated and filtered. Then 50 cc. of hot salt solution and 15-20 grams of pulverized salt are added to the filtrate, after which 20 drops of phenolphthalein solution are added and the solution titrated to a dark carmine color with tenth-normal sodium hydrate solution. It is then quickly back-titrated with tenth-normal sulfuric acid to a pale rose color. If there has been an insoluble portion it must be determined and taken into consideration in the calculation of the acid number. *Bull. des Mat. Gras.* 8566 (1929).