

ABSTRACTS

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The resin and fatty acids occurring in "tallo" (the liquors obtained in the sulfate and soda processes of wood pulp manufacture) may be freed from their soaps by treatment with sulfite waste liquor and the free acids extracted with a solvent such as benzol. After removal of the solvent, the resin acids may be separated from the fatty acids. Ger. Pat. No. 503,030.

Recently developed phenol resinoids which are soluble in drying oils are said to produce varnishes which dry faster, are harder, more elastic and more durable, as well as more resistant to boiling water and soap solution than are similar varnishes prepared with ester gum in place of the phenol resinoids. *Ind. Eng. Chem.* 22,1177-80 (1930).

Fats, waxes or resins are readily oxidized at elevated temperatures by means of a current of air if they are present in a liquid condition and mixed with solid materials of large surface area such as clay, powdered aluminum or glass. U. S. Pat. No. 1,780,632.

Cacao butter and its substitute may be classified by the freezing point method. Butters from normal beans, properly fermented and roasted, give very similar freezing point curves. A defective butter is recognized by depression of the maximum and minimum temperatures, together with a slow setting. A similarity in the cooling curves of cacao butter and any other fat indicates that fat is suitable for chocolate manufacture. *Analyst* 55,477-87 (1930).

In the determination of the moisture in soap by distillation of the water with xylene, accurate results are dependent upon the form of condenser used. The recommended type is internally suspended with outer jacket. A graduated tube connected to the bottom of the condenser enables the return of clear water-free xylene to the distillation flask. The turbid mixture of water and xylene is then transferred to another graduated tube and centrifuged, the volume of water being read for the percentage determination. *Chem. Ztg.* 50,962 (1930).

For the emulsification of tars, oils, fats, resins, cresols and the like, in admixture with substances such as sulfur, phosphorus, arsenic or selenium, if desired, emulsifying agents are prepared by treating products, obtained by the oxidation of animal, vegetable or mineral waxes with gaseous oxidizing agents, with 20-40% of their weight of chlorine at a temperature below 100°C., and subsequently treating the chlorination products so obtained, with basic reagents. Brit. Pat. No. 321,239.

The beta-eleostearic acid of China wood oil is said to have an iodine number which varies with the duration of exposure to iodine and with the excess of iodine used. The iodine absorption curve also shows a decided break at 180 iodine number, indicating a tetraiodide which upon long-continued iodine action becomes finally a hexaiodide. *Chem. Umschau, Fette, Oele, Wachse Harze* 37-269-71 (1930).

Wood and nearly all vegetable tissues as well as various animal, vegetable and mineral oils act on sensitive photographic plates in the absence of light, forming dark images, known as the Russell effect. The usual explanation of the phenomenon is that hydrogen peroxide or ozone is given off during slow oxidation and that these cause the effect. If air is excluded no effect is produced. Recent experiments have shown that in the case of fatty oils, the activity is not due to peroxide or ozone, but to butyric acid, which is one of the oxidation products of the oils. *Trans. Roy. Soc. S. Africa* 18-295-300 (1930) *Chem. Abstr.* 24, 6045-6 (1930).

Some experiments of J. Davidsohn on mixtures of rancid fats with fresh fats have convinced the experimenter that the Kreis test is an unreliable criterion for rancidity of fats and that the Wiedemann-Kreis modification, which uses acetone in place of ether and sulfuric acid instead of hydrochloric, is likewise unreliable. *Chem. Umschau Fette, Oele, Wachse Harze* 37,193-6 (1930).