ABSTRACTS

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Wijs Iodine Determination

The decision of the International Union of Pure and Applied Chemistry, to recommend the adoption of the Wijs process for the determination of iodine values, especially in forensic cases, has led M. Wijs to contribute a short paper on the subject to the Society of Public Analysts, which was read at their last meeting. He points out that in certain text-books the quantities of iodine chloride and iodine used in the preparation of 1 litre of solution are erroneously given as 9.4 and 7.2 grms. respectively, whereas they should be 9 grms. and 10 grms., the solution being afterwards diluted with acetic acid to N/5 strength. When the solution is likely to be exposed to low temperatures, such that it crystallizes, it may be prepared from a mixture of 300 c.c. carbon tetrachloride and 700 c.c. acetic acid in place of 1 litre of acetic acid. It has long been recognized that a considerable excess of the reagent over that required by the oil taken is necessary for satisfactory results, but the author recommends that not more than 30 per cent. of the reagent shall be absorbed—that is to say, there shall be an excess of more than double the amount taken up by the oil. *Perf. & Essen. Oil Record,* 1929, 36.

Bömer and Ebach, experimenting on palm kernel oil, have been unable to obtain any indication of the presence of simple triglycerides, either by distillation of the oil in vacuo of the cathode light, or by distillation after fractional crystallization. They have, on the other hand, succeeded in isolating pure triglycerides from other and less important fats. Thus in laurel oil they have found thirty percent trilaurin, and in nutmeg oil forty percent of trimyristin. *Zeits. unters. Lebens.* 1928, 501.

China wood oil when heated below 200° C. for about twelve hours, and subsequently at 250-300° C. with the addition of various agents, such as oxidizers, reducers, terpenes, halogen compounds, acetates, phthalic compounds and aldehydes, does not gel in the usual manner and dries clear. *Farbe u. Lack* 1928, 558.

A proposed new method of making the cold test determination on neatsfoot oil and various other oils consists of cooling the oil by drawing dry air through ether in a special three walled Dewar flask in which a tube of the oil is supported. The entire apparatus is transparent and readings, except the final one, are made without removing the oil tube from the cooling bath. The temperature of the ether cooling bath is more easily regulated than that of ordinary cooling mixtures. It is claimed that results obtained by this method agree within one degree F. with those obtained by the Tentative Method of the A. S. T. M. *J. Am. Lea. Chem. Assoc.* 23, 595 ,(1928).

The Moscow State Institute for Experiment on Silicates has tested a number of variously treated oil-bleaching clays for adsorption power and reports: (1) The presence of magnesia has no relation to the adsorptive power of the clay, as claimed by some. (2) Crystalline clays have lower bleaching qualities than colloidal clays. (3) Clays suspended in water show a higher power of bleaching than the original clay. *Trans. State Expt. Inst. Silicates* (Moscow), 1927 No. 21, 67-72.

The cardinal question whether a chemical reaction, oxidation or a colloidal phenomenon of jellying is the primary cause of the drying of oils, and whether the drying requires preliminary oxidation is still unanswered. H. Wolff and G. Zeidler spread boiled oil plus drier, raw linseed oil, and wood oil with acid but without drier, on iron and zinc plates, and noted the subsequent increase or decrease in weight. The results leave the question of chemical or colloid reaction during drying still an open one. *Chem. Umschau Fette, Oele, Wachse u. Harze* 35, 313-7 (1928).

Safflower (carthamus tinctorious) is an annual belonging to the order compositae, which grows wild in the Caucasus and in Southeastern Russia. The oil contains the glycerides of stearic, palmitic, linoleic, and linonenic acids, which also occur in sunflower oil, with which it is interchangeable. When heated to a high temperature safflower oil undergoes polymerization. *Masloboino Zhirovoe Delo* 1928, No. 6.