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PROCESS OF PRODUCING ACRYLIC ACID ESTERS

No Drawing. Application filed June 18, 1929, Serial No. 371,966, and in Germany July 30, 1928.

My invention relates to esters and consists in a new process of producing acrylic acid esters.

Because of the sensitiveness of the ester group, it has, heretofore, been impossible to produce from beta-halogenated carboxylic acid esters by alkali metal hydroxides unsaturated esters.

Now, I have discovered that acrylic acid esters, in spite of the great sensitiveness of the ester group, can be produced from beta-halogenated propionic acid esters by the action thereon of alkali metal hydroxides with good results, and further, I have found that together with the action of the alkalis, it is advantageous to use alcohol as a solvent. The new process is carried out without any supply of heat. The occurring heat of reaction is removed by cooling. With sensitive esters one preferably operates at temperatures below room temperature.

Example

13.65 kilograms of beta-chlorpropionic acid ethyl ester are treated with 20 kilograms of 20% alcoholic soda lye at room temperature, cooling being resorted to. The result is a yield of about 90% acrylic acid ethyl ester, which is purified.

I claim:

The process of producing acrylic acid esters, which consists in treating a beta halogen propionic acid ester of an aliphatic monohydroxy alcohol with alkali metal hydroxide in the presence of alcohol.

In testimony whereof I affix my signature.

WALTER BAUER.