nary acid. 2nd. Mixture of equivalent proportions of acid and absolute alcohol, without special precautions, gives rise to great disengagement of heat, followed by the production of ordinary sulphovinic acid, depending in quantity on the mode of mixing. Thus one part of sulphuric acid to five of alcohol gives, after one hour contact, 10 per cent of sulphovinic acid, and after 26 hours, 26 per cent., where one part of acid and two parts of alcohol are mixed the quantity of sulphovinic acid formed in twenty four hours was quite small, but in course of time the reaction progresses until the fixed limit is reached. From each 100 parts of sulphuric acid, the following yield was obtained :---After 40 hours, 56 per cent; 90 hours 59 per cent; 147 days, 58.8 per cent. 3rd. The reaction is greatly accelerated by heat. If the temperature of the mixture be kept at 100° C., 56 per cent of acid may be obtained in four hours. The further application of heat lessens the yield, for it was found that, at the expiration of ten hours, the quantity of acid present was only 42 per cent. This is due to the formation of ether. 4th. The production of ether becomes very plentiful at 145° C., and at 160 to 170° C., even ethylene is formed. The circumstances most favorable to the production of sulphovinic acid are therefore, that the mixture be raised to 100° C., and the heat be, after a short time, discontinued. The presence of water exercises an injurious effect in the reaction. Alcohol containing 25 per cent. of water, yielded, at the end of a month only 8 per cent of sulphovinic acid. These facts have an interesting bearing on the production of ether.

INFLUENCE OF WATER ON THE SULPHOVINATES.—In the paper referred to in the preceeding paragraph, M. Berthelot shows the action of water on this class of salts, decomposition ensuing, with reproduction of alcohol and acid. The salts are more slowly decomposed than is sulphovinic acid and it is in consequence of this that their solutions may be evaporated, but the solutions will not keep a great length of time. Neutral or alkaline solutions are more stable than if acid be present, and a little bi-carbonate of the alkali operated upon may be advantageously added in evaporation of solutions of the salts, the bi-carbonate remaining in the mother liquor. The author is unable to say whether a neutral sulphovinate, isolated in a crystalline state, and free from water, can be preserved ; hitherto, all