NOTE ON HEHNER'S TEST FOR FORMIC ALDEHYDE.

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IN trying Hehner's test for formic aldehyde in milk, which consists in the production of a blue or violet colour when formalized milk is poured on to the surface of strong sulphuric acid, it was found that the reaction could be easily obtained with commercial sulphuric acid, but quite failed when the pure redistilled acid was used.

In order to identify the impurity present in commercial sulphuric acid, to which Hehner's reaction is due, the effect of adding common impurities to the redistilled acid was ascertained. Nitric acid, nitrous acid, hydrochloric acid, arsenious acid, and lead sulphate were found to have no effect, but the addition of a trace of ferric chloride at once conferred upon the pure acid the power of giving the violet colour with formalized milk. Platinic chloride answered equally well, while mercuric chloride, bromine, and potassium permanganate were less effectual. No reaction could be obtained by the use of sodium hypochlorite, of ferrous sulphate, or of potassium bichromate. The commercial acid was found to give distinct reactions with potassium ferrocyanide and with ammonium sulphocyanide, whereas no trace of iron could be detected in the pure redistilled acid.

It would therefore appear that the presence of a feeble oxidizing agent, such as a metallic perchloride, is necessary for the production of Hehner's reaction. The test is not improved by the addition of any considerable amount of ferric chloride, but rather the reverse. A trace only is necessary and sufficient.

NOTE.—Mr. Hehner informs us that he used “pure” or “redistilled” sulphuric acid in all his tests, but he now finds that a trace of ferric chloride renders the reaction far more distinct.—EDITOR.