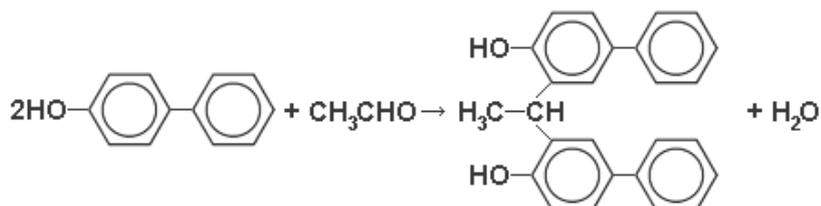


Lactic acid can be detected by the following qualitative reactions :
Interaction with n- oxydiphenylene and sulfuric acid :



With gentle heating lactic acid in concentrated sulfuric acid is initially formed acetaldehyde and formic acid , the latter immediately decomposes :



Acetaldehyde reacts with n- oxydiphenylene , and apparently , condensation occurs in the o- position to the OH- group to form a 1,1- di (hydroxybiphenyl) ethane :

1,1- di (hydroxybiphenyl) etan.PNG

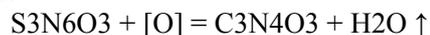
In a solution of sulfuric acid is slowly oxidized in purple product of unknown composition .

Therefore , as in the detection of glycolic acid with 2,7- dioksinaftalina in this case occurs reacting an aldehyde with a phenol in which the concentrated sulfuric acid acts as a condensing agent and oxidizing agent. The same color reaction gives α - hydroxybutyric acid and pyruvic acid .

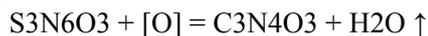
Performing reactions: In vitro dry heated for 2 minutes in a water bath at 85 ° C a drop of the test solution with 1 ml of concentrated sulfuric acid. Then the mixer was cooled to below 28 ° C, was added a small amount of solid n- hydroxybiphenyl and stir several times , allowed to stand for 10-30 minutes. Violet color appears gradually and after a while it becomes more profound. The opening at least 1,5 · 10⁻⁶ g of lactic acid.

Interaction with acidic sulfuric acid solution of potassium permanganate

Performing reactions: In 1 ml vial tide lactic acid and then slightly acidified with sulfuric acid solution of potassium permanganate. Heat for 2 minutes on low heat. There is a smell of acetic acid.



The product of this reaction can be S₃N₄O₃ pyruvic acid , which also has the smell of acetic acid.



However pyruvic acid is unstable under normal conditions and rapidly oxidized to acetic acid so that the reaction proceeds according to the overall equation

