

## Results of experimental studies of optoacoustic response in biological tissues and their models

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*The optoacoustic method for diagnosing biological tissues can be used to determine the concentration of hemoglobin, glucose, hematocrit, due to the fact that it has a high spatial resolution. Measurements of the acoustic signal in vitro in porcine blood and model biological fluids were carried out in the presence of polystyrene microspheres as models of erythrocytes. The presented method measured in vitro the local state of blood in the presence of heparin concentration as well as in model biological media. The results are consistent with published work in this area. Despite the fact that while the method is not accurate enough and requires further optimization, calibration, it has great prospects as an easily implemented non-invasive real-time measurement method.*

*Keywords:* optoacoustic effect, acoustic signal, blood, laser.

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