

## ABSTRACT

Master`s degree work Dudko V.O. on «Biosensor for glucose determination with usage of the enzyme-sensitive layers» K.: Igor Sikorsky Kyiv Polytechnic Institute, 2017. 107 p., 24 fig., 36 tab., literature – 30.

Diabetes is a health problem over the world. There are numerous complications in the fight against diabetes, including higher risks of cardiovascular disease, kidney failure or blindness. These complications can be mostly eliminated by strict personal control glucose level in blood.

The device which is based on a composite material consisting of extract of black radish root and natural inorganic carrier painted on grapheme layer could be convenient, cheap and reliable means of personal monitoring of glucose level in electrolytes. The interaction between enzyme and glucose was studied upon the operation of the device, the response of sensor on glucose was determined in in a wide range of concentrations.

**Keywords:** glucose biosensor, bentonite, immobilization.