The present invention describes the methods of production of biological sensors which can be used to determine the amount of glucose in samples. The titanium plates used in these biosensors are covered with a Prussian blue layer, which is combined with a polypyrrole anchor or a directly precipitated enzyme, allowing the detection of a sample analyte. In the production of glucose biosensors, this enzyme is glucose oxidase. The advantage of these biosensors is there low electrode potential used during operation.