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(54) Title: DEVELOPMENT OF FLEXIBLE PLASMONIC MEMBRANE-BASED SERS PLATFORM FOR MONITORING THE HEALING

(57) Abstract: Herein disclosed includes a biocompatible SERS-active polymer membrane configured to detect biomarkers in a sample, comprising: a flexible and porous polymer membrane; and SERS-active nanoparticles formed on the flexible and porous polymer membrane, wherein the flexible and porous polymer membrane comprises cellulose or an elastomeric polymer. Also disclosed herein is a method of forming the biocompatible SERS-active polymer membrane and a method of determining a state of wound healing in a diabetic individual involving the use of the biocompatible SERS-active polymer membrane.



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