

(54) Title of the invention : AN ARTIFICIAL INTELLIGENCE BASED BIOMEDICAL SENSING SYSTEM FOR HIGH THROUGHPUT BIOMOLECULE TESTING

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(57) Abstract :

The present invention relates to an artificial intelligence based biomedical sensing system for high throughput biomolecule testing. A biosensor can include a stack comprising a free layer a fixed layer and a nonmagnetic layer between the free layer and the fixed layer. At least one of the free layer or the fixed layer may have a magnetic moment oriented out of a major plane of the free layer or the fixed layer respectively in an absence of an external magnetic field. The magnetic biosensor also may include a sample container disposed over the magnetic stack a plurality of capture antibodies attached to a bottom surface of the sample container above the magnetic stack and a magnetic field generator configured to generate a magnetic field substantially perpendicular to the major plane of the free layer or fixed layer.

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