

# Biosensors Through Impedance Spectroscopy

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**Category**

Diagnostics

**Description**

Biosensors are analytical devices that combine biologically sensitive elements with optical, chemical, or mechanical transducers for selectively and quantitatively detecting biomolecules.

PSU researchers have developed a novel biosensor technology, utilizing nano-particles, that can simultaneously detect and quantify both antigens and antibodies within body fluids with sensitivities and specificities equivalent to or better than existing assays. Due to the advantages of working on the same scale as the measured analytes, the new technology is faster, cheaper, and can be miniaturized as a durable hand-held device.

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