Laser Scanning Interferometric Assays

This precise, non-contact measurement technology uses laser interference properties to gauge distance, velocity, vibration, and surface roughness for applications in manufacturing, aerospace, and material research.

A technological challenge facing rapid sensing of biological pathogens and target molecules (viruses, toxins, peptides, DNA fragments, etc.) is the high multiplicity of the biological binding sites that are needed to test for different targets. Researchers at Purdue University have previously developed a BioCD technology that allows for very accurate and fast scans of biological binding sites. This invention will allow high-speed multi-analyte assays using low-cost laser scanning equipment. The assay format is an interferometric biochip, which gives the laser flexibility because it can read data from a linear or circular medium.

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Intellectual Property:

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