

US researchers discover new technique to test for viral infections

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The researchers have developed a sensor that can detect as few as 10 antibody molecules within 20 minutes.



A team of Colorado State University researchers has developed technology that can detect extremely small amounts of antibodies in a person's blood. Antibodies develop to infect cells or kill pathogens, essentially fighting off a bacteria or virus. The levels of antibodies in the blood can tell whether that person is sick.

Using a small wire that is one-fourth the size of a human hair, the researchers have developed a sensor that can detect as few as 10 antibody molecules within 20 minutes. Standard medical testing requires billions or trillions of antibody molecules for detection and can take up to a day to process.

This type of cost-effective instrument could help clinicians treat diseases sooner in people and could be used in low-resource settings.