



NANO EYE DEVICE-VIRUS DETECTION

NED-VD

THE DIGITAL REVOLUTION
IN MULTIPLEXING

MULTIPLEX DETECTION OF HPV GENOTYPES

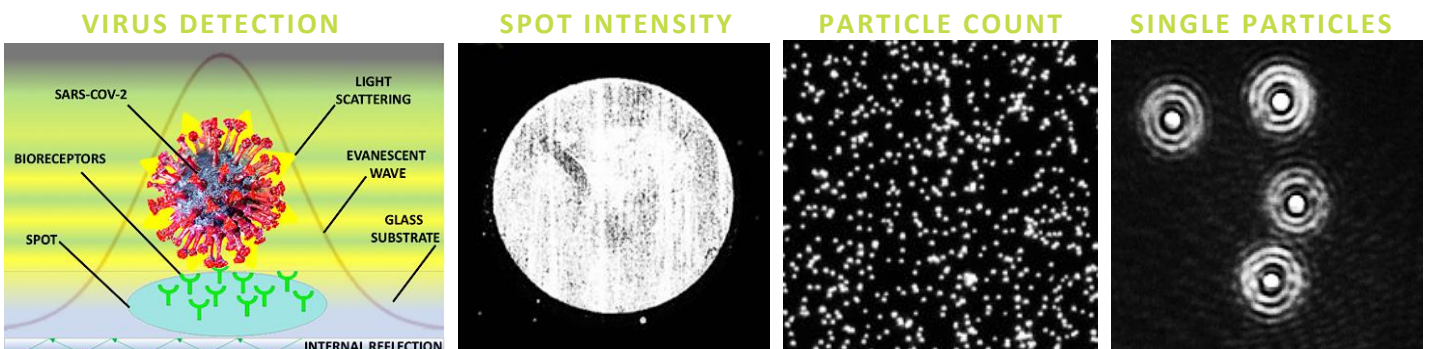
Expand your capabilities with multiplexing panels by exploiting the power of DNA microarray & bioconjugated nanoparticles. With proprietary laser optical coupling in internal reflection we generate evanescent-wave illumination of the surface able to discriminate sensing nanoparticles from the background. Our proprietary method of detection in scattering is three orders of magnitude more performant than fluorescence, so forget worries about using complicate and high-cost “super” microscopy systems to detect single molecules. Easily plug and play our device and plan to play your assay researching up to +500 analytes from a single sample under analysis.



Example of detection of viral amplicons of HPV16 + HPV18 in a single experiment.

LABEL-FREE BIOSENSING OF VIRAL PARTICLES

NTP developed a quantitative label-free test for specific capture of virions of Sars-CoV-2. On a single glass slide up to 48 patients can be examined. Detection of viral particles occurs by exploiting the patented optical coupling between laser and glass slide. This permit to detect and study the scattering properties of the capsid when illuminated by evanescent wave.




Detection of viral particles of Sars-CoV-2 at 4X,20X,60X magnification




MICRO & NANO IMAGING, REMOTE CONTROL

Real-time sharing of diagnostic images over local and geographical data networks is the new frontier of telemedicine. For molecular diagnostics NED-VD represents the last generation of instruments able to optimize and fasten the process of detection through direct imaging of sensing nanoparticles onto biorecepting areas printed on silica. The skills of this instrument allow its use locally or from remote, with no delay lag, both for support & urgency and/or for training & education in the biosensing sector.



 Remotely accessible from any device







 Coverslip imaging with dry objectives


 Lens

Up to four lenses available:

-  4x and 10x: for qualitative analysis of the results;
-  20x and 60x: for quantitative analysis of the results;

 Software

-  Dedicated management and control software with connection and viewing of streaming images;
-  Qualitative analysis of the results;
-  Analyte count and quantitative analysis;
-  Statistical processing of the results;

 Network band

Ready for 4G / 5G connections.

 Monitor

DICOM high definition monitor ready.



VIRUS DETECTION WITHOUT BOUNDARIES

Thanks to the versatility of NED-VD, the access to high resolution laser optical imaging for molecular diagnostics becomes faster and more effective. Laser scattering of nanoparticles and evanescent wave open new perspectives in multiplex biosensing and simplifies the medical consultancy and diagnosis by molecular counting of the analyte even to femtomolar level.

