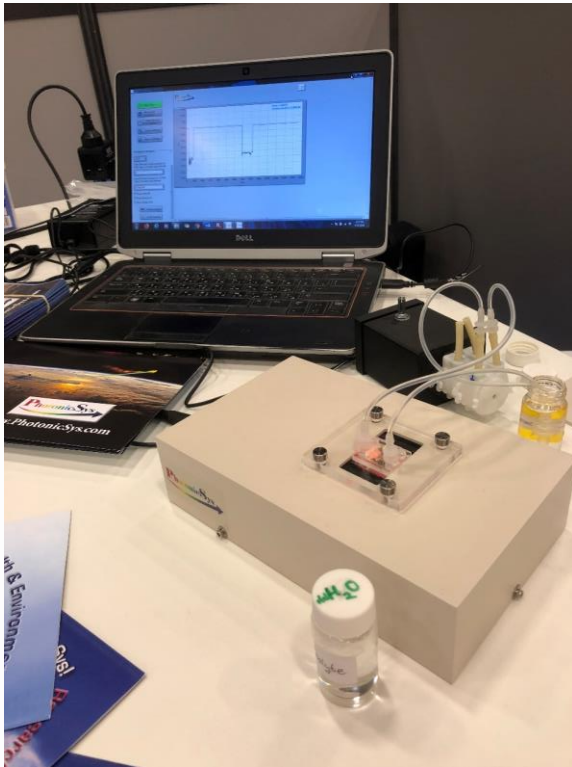




PhotonicSys with its unique technology specializes in the development of proprietary optics and photonics based instruments and systems for the rapid detection of small (molecules, viruses) and large (bacteria, cells) entities in

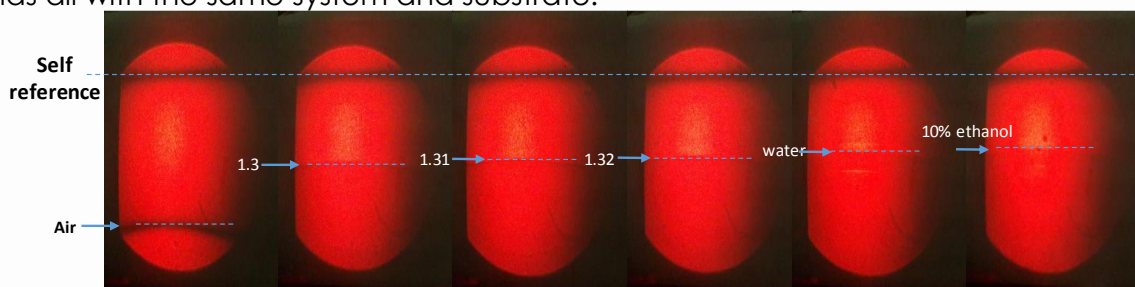
solutions and in gas forms. Our devices can be standalone or integrated into other systems such as optical microscopes, fluorescence and Raman systems. Being miniature these devices can be positioned under a microscope or a spectrometer to probe both concentration, refractive index, fluorescence, Raman, surface shape or other spectroscopic signals. Our plasmonic substrates vary depending on the type of the sensing required and maybe sold separately. We are encouraging individual researchers or organizations interested in collaboration in the field of biosensing to contact PhotonicSys, at info@photonicssys.com.

Products and offerings

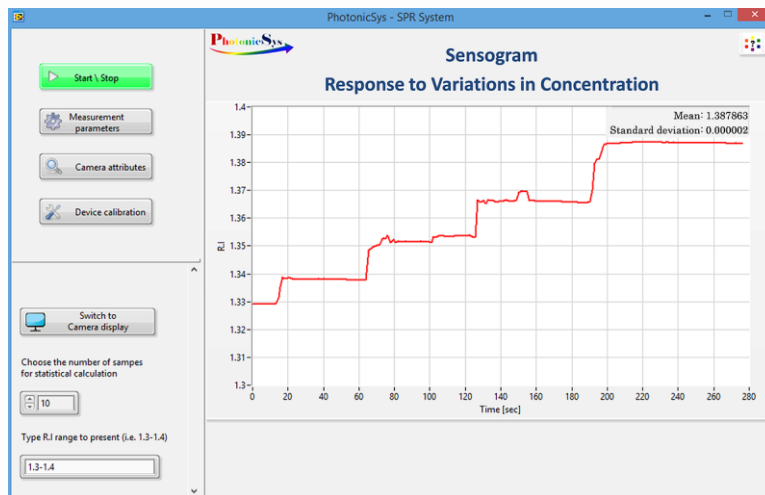


1. **Miniature systems:** Photonicssys Ltd. started with its SPR00 system two years ago and lately presented its more miniature surface plasmon resonance (SPR) instrument H5 and special substrates in BioX conference in Singapore as well as in the SPIE Photonics Conference in Strasbourg. The device which is less than 5cm height, weighs less than 1kg and performs refractive index measurement accuracy down to 0.000001 equivalent to few pg/mm sq., can handle two channels for now but possible to customize for more. The specially developed substrates allow small and large bioentities to be detected. The miniature device can be easily integrated into other instruments so that several measurement modes can be combined with SPR measurement: Miniature Design, Friendly GUI, and integration with other inspection equipment. Furthermore, our special self-referenced substrates allow detecting

gases and liquids using the same substrate and without modifications to the system. The following are SPR signatures showing self-reference and ability to detect gases and liquids all with the same system and substrate.

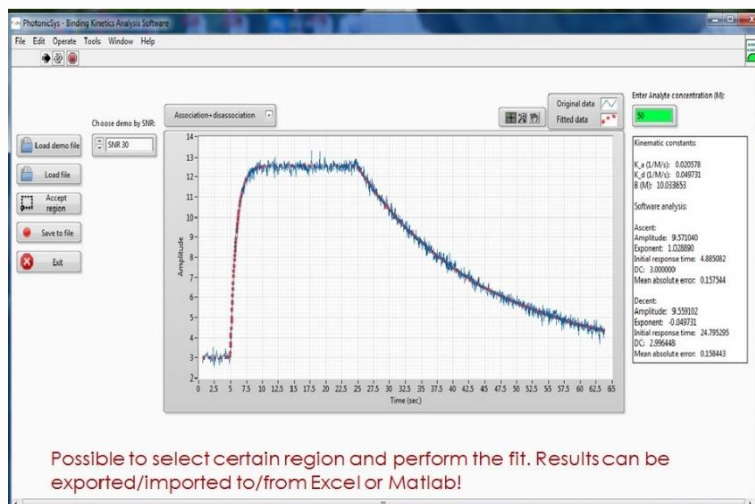


2. **GUI:** The present version of the PhotonicSys SPR system can record sensograms and save them in a file for further analysis or later use in a user friendly graphical interface.



Translation from RI units to concentration units can be done easily using a simple formulae or a numerical table. Because of the continuous reference, the thermal fluctuations and drifts are compensated.

3. **Binding Kinetics** can be performed on PhotonicSys SPR system and analyzed using a sophisticated analysis to find the association and the dissociation constants. A measure of the goodness of fit is given to have the impression on the quality of the fit. The output parameters can be exported into a file for later use.



4. **Specifications:**

Parameter	SPR00	H5 System
Size	4.5"x4.5"x8.5"	2"x3"x8.5" or smaller
Detection limit (RIU)	10 ⁻⁵	<10 ⁻⁶
Weight (kg)	1.9	<1
Speed	16msec	Can be less than 16mses
Refractive index range	1.3-1.42	1.0-1.4 and can be customized
Reference and calibration	Yes	Yes
Portability	Yes	Yes
Operation	PC or laptop	PC or laptop
Substrates	Available upon request	Available upon request
Channels	1 or 2	Can be more upon request
Penetration depth	200nm	Variable from 200nm to few microns
Bioentities size	< 300nm	Small and large (few μm cells))
Combination with a microscope	possible	Yes
Fluorescence excitation	No	Available upon request
Binding Kinetics Analysis	Yes	Yes
Connection to pump	Yes	Yes