

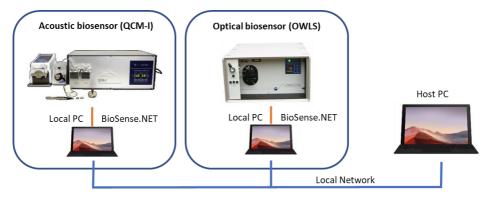
QCM-I OWLS NET

Combined Optical and Acoustic Measurements

The QCM-I OWLS NET is a Biosensor System for Combined "Wet" and "Dry" Mass Measurements. It combines:

A high-sensitivity, acoustic, hydrated mass sensing instrument, QCM-I, with an optical waveguide sensor, OWLS, which probes layer thickness, refractive index and dry mass.

The combination provides unprecedented information about the interactions of molecules, polymers and biological assemblies with surfaces; label-free and in real time.



Control & Measurement

Measurements run in parallel and can be controlled over LAN from a host PC. Synchronised electrochemical measurements are also possible.

See QCM-I and OWLS 210 data sheets for full specification.

References

Data evaluation for surface-sensitive label-free methods to obtain real-time kinetic and structural information of thin films: A practical review with related software packages. A.Saftics, S.Kurunczi, B.Peter, I.Szekacs, J.Ramsden, R.Horvath, *Adv Colloid Interface Sci.* (2021) doi: 10.1016/j.cis.2021.102431

In situ viscoelastic properties and chain conformations of heavily hydrated carboxymethyl dextran layers: a comparative study using OWLS and QCM-I A.Saftics, R.Horvath et al. *Scientific Reports (2018) doi.org/10.1038/s41598-018-30201-6*

The Density and Refractive Index of Adsorbing Protein Layers. J Vörös, *Biophys J. (2004) doi: 10.1529/biophysj.103.030072*

Semilab Semiconductor Physics Laboratory Co. Ltd.

Prielle Kornélia v. 2. H-1117 Budapest, Hungary Tel.: +36 1 505 4690

Web: http://gcm-sensors.com E-mail: sales.support@semilab.com