# Surface and Interface spectrometer

# SIS-5100 / S-SPR6100 series

## Optical Waveguide spectroscopy!

***Optical Waveguide Spectrometry has…***

***・・・high sensitivity for trace samples.***
***・・・characteristic to use evanescent waves.***
***・・・possibility to collaborate with other methods.***

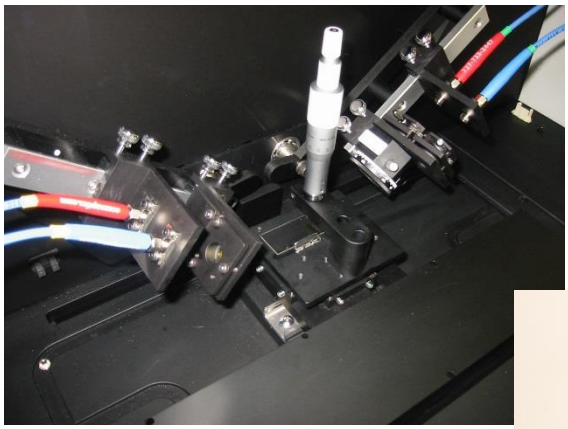

**Photo.1 Sample room for analysis**

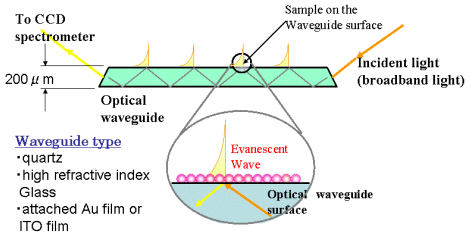


**Fig.1 Image of optical waveguide spectrometry**

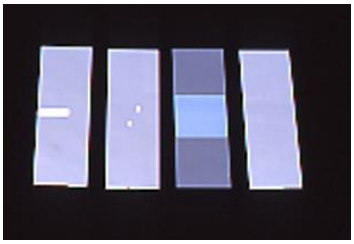

**Photo.3 Optical waveguide variation**

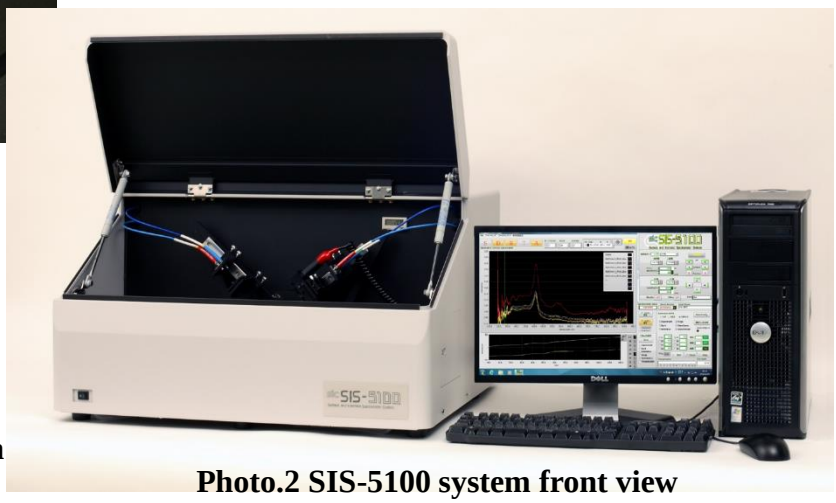

**Photo.2 SIS-5100 system front view**

## ◇Applications

■UV/vis/nIR real time multiple ATR analysis for Surface and Interface, Trace Sample, Monolayer
■Absorption Spectroscopy, Fluorescence Spectroscopy, Surface Plasmon Resonance Spectroscopy
■Nano Technology, Organic Devises, Adsorption-Desorption, Functional Materials
☐OLED, Dye-Sensitaized Solar Cell, Organic Crystal Polymorph
☐Solution, Gaseous, Solid(Organic), Film surface, LB membrane
☐Photo-functional analysis of molecular on photo-irradiation, Photo deplete
☐Affinity of bio molecular, Chemical sensor with Spectroscopic Surface Plasmon Resonance (SSPR)
☐Chromism with Electrochemistry, Photochemistry, Gas, Thermal, Mechanical and Tribochemical
☐Molecular orientation analysis with Polarized Optical Waveguide Spectroscopy


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## ◇Specification

**■The main system**

Incident angle adjustment　normal to surface 90～35degrees(fine adjustment below 0.005)

Out put angle adjustment　normal to surface 90～35degrees(fine adjustment below 0.005)

Indication choose normal to surface angle or parallel to surface angle

Y scan adjustment　0～20mm(fine adjustment below 0.005)

Light source　Xe 150W(Hamamatsu photonics KK　L2175)

Dimension　620(W)×550(D)×330(H)

**■Computer**

Windows 10 Base (Dell computer Dimension well) 64bit

Original application software for absorption spectra and SPR spectra and save on time

**■Power**　100～110V AC　0.6KVA　(world wide)

**■Spectrometer**　Ocean Optics inc (USB4000, etc) spectrometer

Wavelength　220～700nm or 400～1000nm ,

220～700nm and 400～1000nm 2 spectrometers

CCD　3048pix　, resolution　1 .25nm

**■ Optical wave-guide type**

Dimension　0.2(t)×65(l)×20(W) each side has 60 degrees tilt angle.

Quartz or high reflective index glass　attached Au, attached ITO

**■Options**

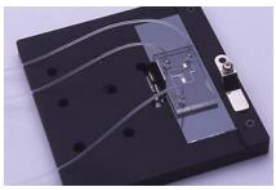
Transmission cell

Z axis adjust stage

Polarizer unit

Halogen light source

electro chemical cell



PDMS μ-line

**Manufacturer**

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