

## Device

<b>Dimensions</b>	(175 x 155 x 55) mm
<b>Weight</b>	< 1.3 kg
<b>Operating temperature range</b>	-10°C to 40°C
<b>Power requirement</b>	Two USB ports via computer or laptop
<b>Computer requirements</b>	Windows 7 and up
<b>Light source</b>	Polychromatic LEDs light source Specific wavelength band will be available soon
<b>Detector</b>	550 – 750 nm (compatible for Au sensors) Other spectral options available
<b>Software</b>	LabVIEW control software
<b>Data processing</b>	Compatible with Ridgeview's TraceDrawer, Origin, Matlab, Excel ... more.

## Microfluidic cell

<b>Material</b>	Polydimethylsiloxane (PDMS)
<b>Channel configuration</b>	3 + 1 (current) 1 x 4 (option available soon) 2 x 2 (option available soon)
<b>Injection mode possible</b>	
Direct into microfluidic via:	200 uL pipette tip 1-ml syringe with blunt needle (18 gauge)
Indirect using fluidic tubes via:	Luers with 1-mL syringe peristaltic or syringe pump
<b>Direct injection into cell</b>	40 uL for 3-channel segment 10 uL for 1-channel segment
<b>Injection via ports</b>	
Number of ports	2 4 (option available soon)
Dead volume	80 uL
Max flow	6 mL / min (100 uL per second)

## Analytical performances

*Signal variations using Affinité's Calibration Kit*

<b>RI range</b>	1.333-1.390 RIU
<b>RI resolution</b>	1 uRI
<b>Standard variation on 5 min</b>	0.012 nm (n =665)
<b>Drift slope over 30 min</b>	-0.000009 nm / s
<b>Drift shift over 30 min</b>	-0.026 nm
<b>Au sensor calibration</b>	(2170 ± 30) nm / RIU (n = 9)
<b>Average channel-to-channel CV%</b>	(2.2 ± 0.8) % (n=9)

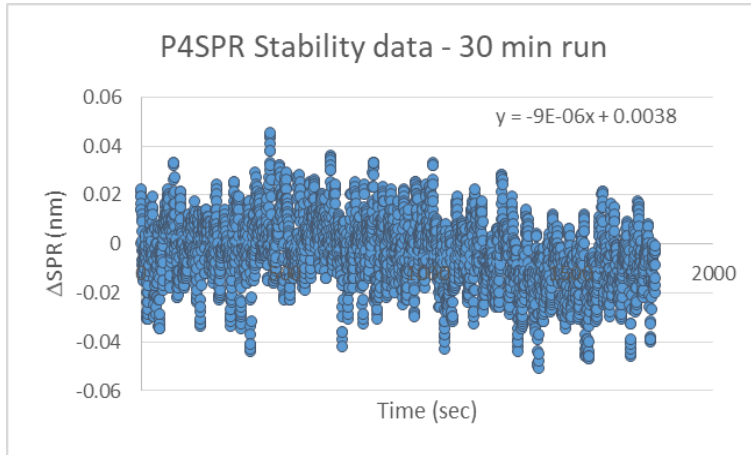


Figure 1 – Stability test with P4SPR in water over 30 minutes at room temperature in lab.

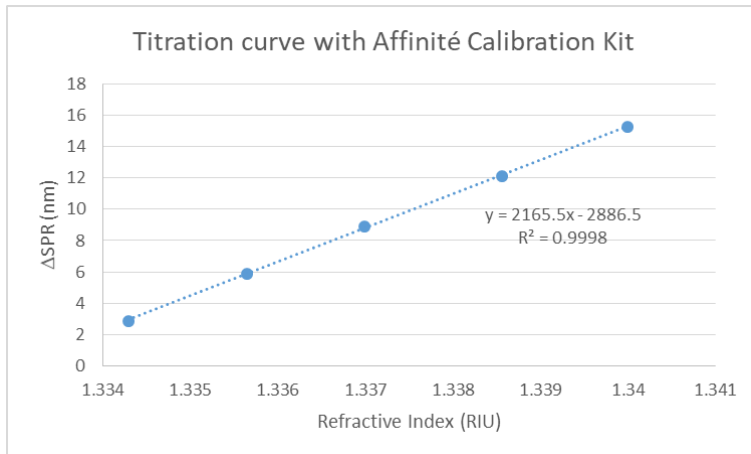
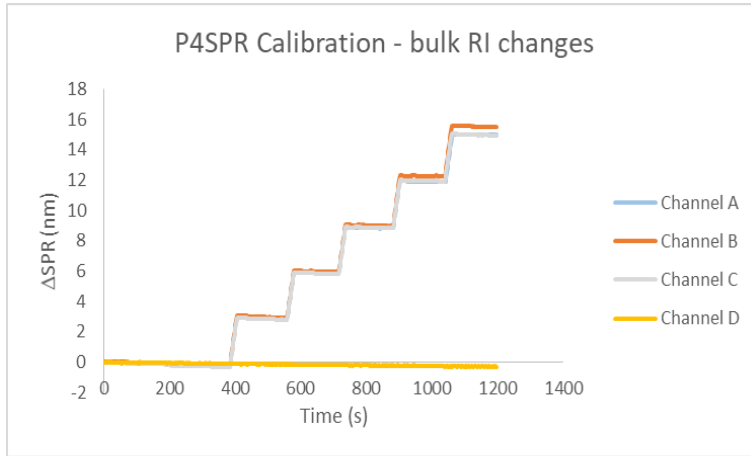


Figure 2 – P4SPR response to bulk refractive index variations (top) sensorgram and (bottom) titration curve.