The Table Stable Ltd.

JRS INTERFEROMETRY PRODUCTS

Since the invention of a revolutionary new design for tandem multipass Fabry-Perot interferometers by Dr. John R. Sandercock in 1981, JRS Scientific Instruments is leading the market of Fabry-Perot interferometers for basic scientific research



Profiting from more than 30 years of constant improvements and development, the JRS tandem multipass Fabry-Perot spectrometer TFP-1 provides the best commercially available design for general purpose Brillouin light scattering measurements

The recent development of the new extremely high contrast TFP-2 HC spectrometer is expected to be a breakthrough in measurement of very small intensity signals, not accessible by Fabry-Perot spectrometers up to now

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The Table Stable Ltd. Dr. J.R. Sandercock Im Grindel 6 8932 Mettmenstetten, Switzerland A Fabry-Perot interferometer (FP) is needed for high resolution (MHz to GHz) light spectroscopy. A FP consists of two very flat plane mirrors mounted accurately parallel to one another. A single FP behaves like a comb filter, transmitting a theoretically infinite set of wavelenghts, spaced by a constant interval.



In order to increase the contrast and obtain a single line response, multipass tandem configuration can be used: the light passes several times between the mirrors of two different FP, each with a different mirror distance. JRS interferometers addresses all the most common troubles that affect this kind of instrumental construction.

LOSS OF PARALLELISM

while scanning the sytem on the micrometric range or while changing the mirror spacing is reduced by using a compound stage, including a motorized positioner and a piezoelectrically activated deformable parallelogram.

SCAN NONLINEARITY

due to the piezoelectric transducers and long term thermal expansion drifts is constantly compensated by a capacitive feedback loop.

RS-SCAN

TABLE

POWER ON OFF

Enable

ENVIRONMENTAL VIBRATIONS

can lead to quick loss of alignment. The interferometer is thus sitting on a support frame actively stabilised by two internal antivibrating units, manufactured by Table Stable, a part of JRS family.

VIBRATION ISOLATION CONTROL UNIT





of the instrumental operation is achieved by an automatic electronic stabilisation loop



THE NEW TFP-2 HC INTERFEROMETE

INTERFEROMETER TEP-ZHC enhances the instrumental contrast up to at least a value of 10¹⁵, by preventing internal back-reflected light from travelling through the instrument. This is an unprecedented level of contrast, that promises to enable signals to be seen that were not detectable up to now.



AVAILABLE ACCESSORIES FOR THE TFP SERIES INTERFEROMETERS



CM-1 CONFOCAL MICROSCOPE

A plug-and-measure appendix which can be mounted to the interferometer input, in order to obtain a microspectroscopic setup.

provides :

- coaxial LED illumination
- two switchable magnification levels
- auxiliary measurement light input/output
- long working distance objective
- large sample space
- polarised/unpolarised/depolarised scattering selection

TCF-1 ETALON

A small autonomous temperature controlled etalon plate, easy to install and align, providing high suppression of spurious laser lines. Etalon plates available for the green (512-552 nm) and blue (440-480 nm) spectrum regions.





TCF-2 STABILISED ETALON

A small component, the stabiliser, is added to the TCF-1 providing longterm optimisation for temperature and laser wavelength drifts



CUSTOMISATION AVAILABLE ON REQUEST ! ASK US !



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