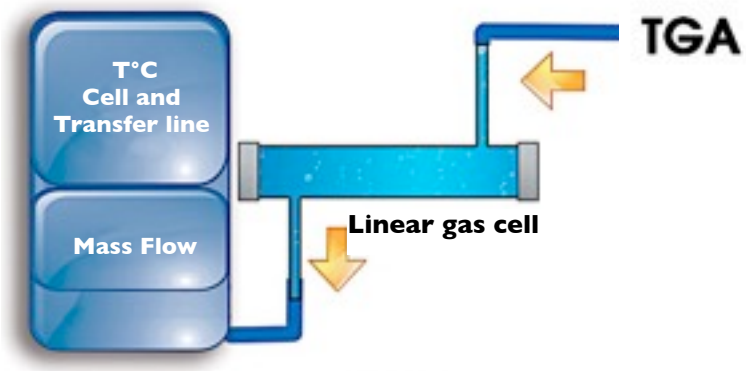
# T-IR630
## TGA Interface

SRA INSTRUMENTS
ANALYTICAL SOLUTIONS




AGILENT CARY 630 FT-IR

### Reduced volume linear gas cell with 7cm optical pathlength

Z-linear gravity cell geometry provides for gas input at the top and exhaust at the bottom ensuring constant and uniform gas flow

The reduced volume allows residence of the gas in the cell for up to 5 seconds during the analysis phase

**The cell design, active gas flow, and close control of the cell and transfer line temperatures also ensure rapid cycling of the evolved gas through the cell without risk of contamination**

### SRA T-IR630 interface enables IR analysis of the gases evolved from a TGA system using the Agilent Cary 630 FTIR spectrometer

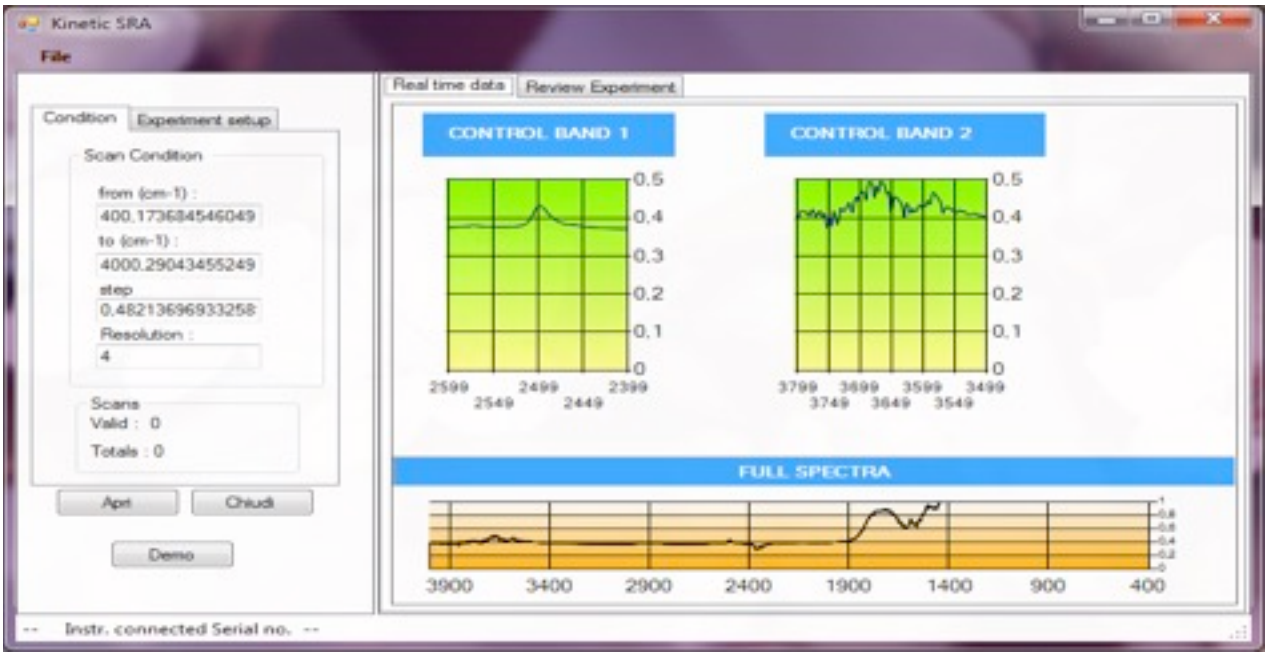
The system comprises of the following components:

- Specific adapter for coupling to different TGA models (gas sampling directly from the furnace)
- Thermostatted transfer line with SilcoSteel inert liner
- Linear gas cell designed to :
  - Integrate into the optical path of the Agilent Cary 630 FTIR
  - Optimise sample gas residence time
- Controller unit which handles :
  - Temperature of the cell and transfer line (24V heating system with increments of 1°C up to 350°C)
  - Flow control with mass flow controller; gas flow up to 200mL/min
  - Synchronisation and automation of the FTIR analysis
  - Elimination of analysed gases using a vacuum pump.

### A unique characteristic of the SRA T-IR630 interface is the active gas sampling system with balanced flow

With this solution the Gram Schmidt chromatogram can be perfectly overlaid with the TGA first derivative curve - this proves that both analytical techniques are perfectly synchronised.

## SRA Kinetics pro




The SRA Kinetic Pro software is user friendly. It was developed to work with the Agilent Cary 630 FTIR and it manages the collection of the spectra on-line or at preset time intervals. The acquisition parameters are saved in a single method, and spectra are saved in a single file for post-processing. During the experiment you can display two overlaid spectra and monitor the trend of two spectral areas of interest. With a single mouse-click on the spectrum you can extract the chemigram of the species of interest.

## Technical specifications

| | |
|---|---|
| Dimensions | Controller 25.5 x 25.5 x 50.5 (cm), placed on the ground<br>Transfer line length: 1 m |
| Weight | 16.2 Kg |
| Power sockets | Voltage 230 or 115 V ~ ± 10%<br>Frequency 50-60 Hz ± 1% |
| Utilities | Power sockets (1 control module)<br>Nitrogen gas resulting from the TGA |
| Consumption | Maximum 1.5 A at 230 V ~ 400 VA max |
| Environmental conditions | +5 ° C to +35 ° C<br>Maximum relative humidity 75% non-condensing |
| Protection degree | IP (IEC 60529) 20 |
| Maximum noise level of the pump | 55 dBA |

SRA INSTRUMENTS ANALYTICAL SOLUTIONS

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