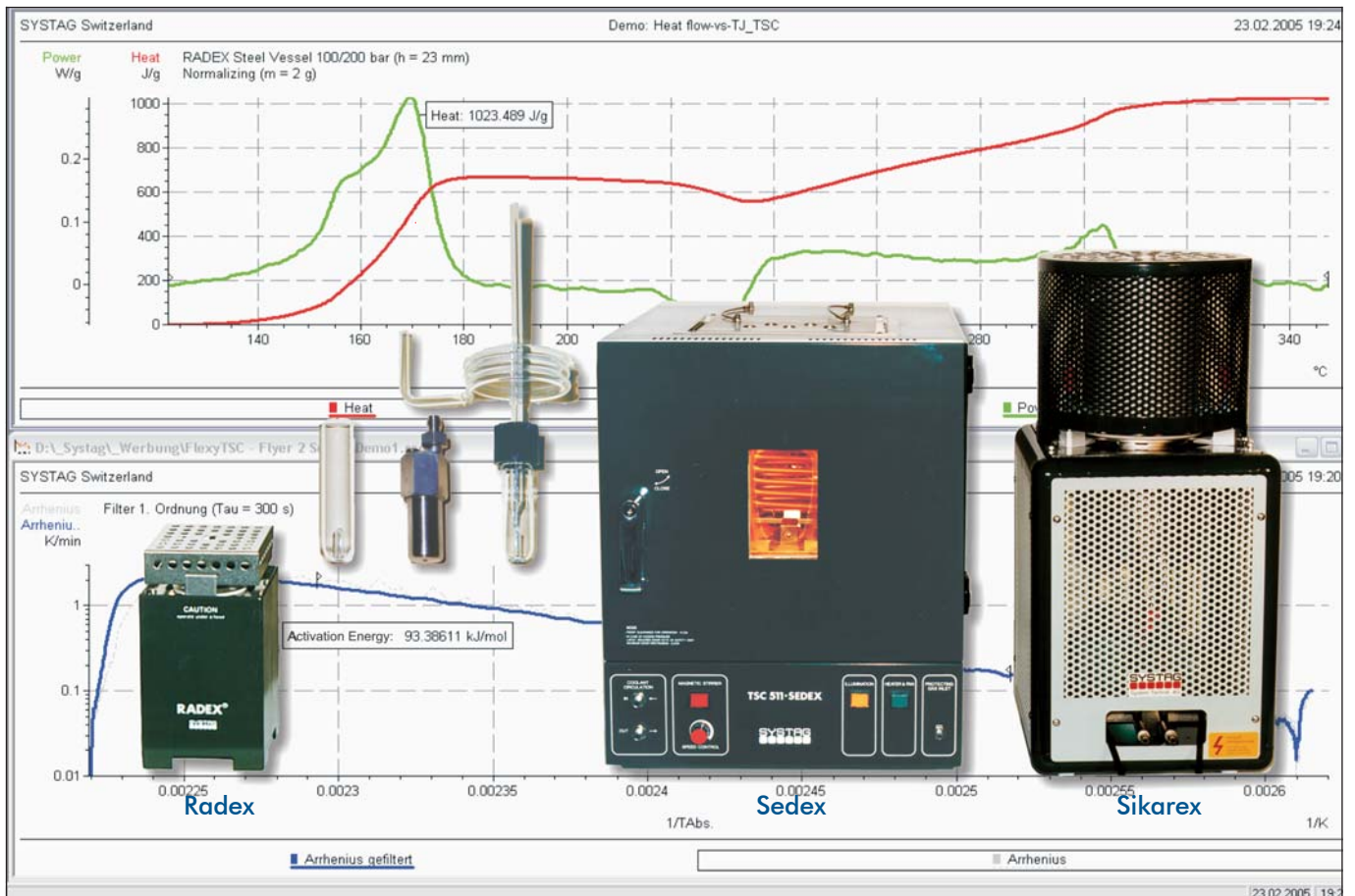




FlexyTSC

Your perfect pathway to thermal safety



- **Simple operation** throughout from measurement to evaluation
- Required sample size within gram range, ideal for **non-homogenous samples**
- Up to **6 measuring cells** (-measurements) can be operated simultaneously and within independent time frames
- Wide selection of **cost-effective sample vessels**
- **Freedom of choice of test conditions** for thermal safety evaluations
- **Standardised measuring procedures** to determine thermal stability, storage stability, self generated heat, heat build up, and gas evolution
- Automatic **test report** generation, **qualitative and quantitative data evaluation**



SYSTAG
automatically better

FlexyTSC (Thermal Safety Calorimeter) The versatile thermal safety calorimeter

Only soundly based thermal safety evaluations can make a meaningful contribution towards process safety.

FlexyTSC supports this process by using varying sample sizes and a free choice of test conditions. Nevertheless, all measurements are directly comparable. This provides an exact characterisation of the sample.

Measuring Methods

- Scanning
- Iso-peribolic steps
- Long-term isoperibolic evaluations
- Adiabatic operation
- IsoARC method (heat-wait-search)

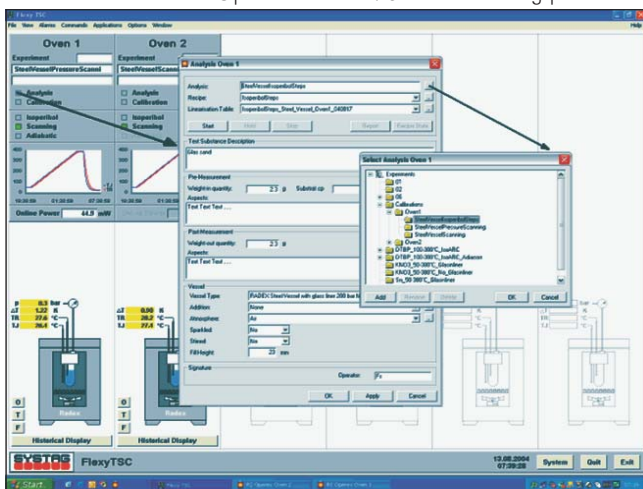
Experimental Conditions

- Atmospheric
- Inert gas atmosphere
- Oxygen atmosphere
- Using a catalyst
- Measuring gas evolution
- Pressure measurement
- While stirring

Sample protocol

- Description of sample
- Sample serial No
- Sample weight
- Appearance of sample
- Test conditions
- Vessel type

Operator monitor: Screen for setting parameters



Evaluation

- Easy diagram generation
- Output [W/g] / Enthalpy [J/g]
- Adiabatic temperature increase
- Time to maximum rate (TMR)
- Arrheniusplot (Activation energy)
- Self heating rate (SHR)
- Onset temperature

Measuring Cells

- **RADEX V5**, test vessel, typically 2.5ml
- **SIKAREX**, test vessel, typically 25ml
- **SEDEX**, choice of test vessels, up to 11

Test Vessels

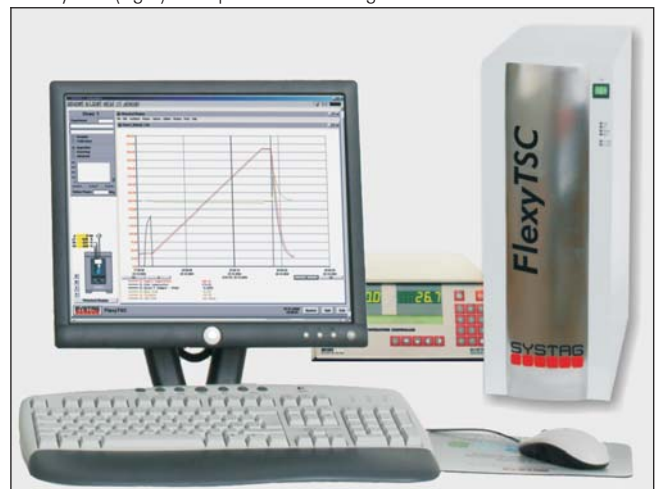
- Glass test vessel
- open and closed, Autoclave
- stainless steel, Hastelloy
- Dewar-vessel (mirrored glass)
- Wire cage (transport safety, UN-Test)
- Three-necked flask
- Choice of any other vessel designs

Control Equipment

- **FlexyTSC Solo**, ideal for single cell measurements. Temperature difference resolution +/- 0.07K.
- **FlexyTSC**, can be equipped with up to 6 measuring cells. Temperature difference resolution +/- 0.01K.

Choice of 2 Control units:

- Control monitor left.
- Midilab for FlexyTSC-Solo (Centre) for single measuring cell.
- FlexyTSC (right) for up to 6 measuring cells.



Technical details are subject to change without notice

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