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## **MicroScale Sealed Vessel (MSSV)**

for pyrolysis under isothermal or nonisothermal closed-system conditions (Horsfield, 1989)

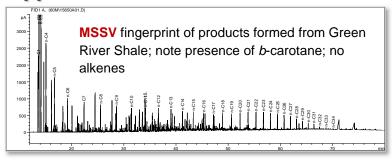
MicroScale Sealed Vessel (MSSV) is an analytical technique developed and shown by Horsfield (1989) that employs 40 microliter glass tubes. One end is presealed, while the other end is used to load sample material and then sealed. The tubes are then heated under either isothermal or nonisothermal closed-system conditions resulting in cracking of the sample material. The heated tube is then broken directly in a gas chromatographic inlet for optimum detection of gaseous and liquid hydrocarbons. Various detectors may be employed such as FID, MS, MSMS, and others.

This technique is used in organic geochemistry to evaluate the products formed at various levels of thermal maturity. Kinetic data may also be computed from results at various time/temperature experiments. Analytical work may utilize whole rock, kerogen, asphaltenes, resins, soils, polymers and other pyrolyzable materials.

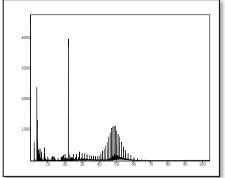
## **Features**

- Quantitative analytical technique with IS
- Isothermal and nonisothermal experiments
- High precision temperature control
- Programmable flow control using HP GC
- Cryogenic trapping system
- Dedicated installation and support system

## **Applications**







High molecular weight waxes (>C40) generated from MSSV pyrolysis of low maturity source rock, Gulf of Mexico, USA

