



High Temperature Pyrolysis and Permeability System

This system is a compact, fully functional triaxial apparatus designed to perform standard coupled process petrophysical and rock mechanics experiments on specimens up to 50 mm (2.0 in) in diameter at temperatures to 450° C

This system is designed to perform permeability measurements on a rock sample at temperature of 400° C. Permeability measurements are made at discrete times using a transient method. Heating is configured so that the sample will reach 400° C.

The system is controlled with hydraulic intensifiers for Confining Pressure, Axial Force and Pore Pressure. Confining Pressure (within the pressure vessel) and Pore Pressure (injected in to the sample) are both Argon gas. Pre-charging the system with Argon must be done using an elevated pressure source: An Argon gas bottle, or some other method of supplying high pressure (3,000 psi) Argon.

The target sample temperature of 400 Celcius is designed to test permeability of shale samples as they go through pyrolysis. Prior tests have been done successfully using a system of almost identical design. This proves the technology used in this system

A global leader in rock testing devices, NER offers the high temperature system for pyrolysis measurements



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Key Features

- Samples temperatures to 400 C
- Pore pressure intensifier compatible with water, brine, oil, and gas (including CO₂)
- Control of pressures and temperature at reservoir conditions
- Integrated electronics console for servo amplifiers and signal conditioning
- AutoLab software for system control and data acquisition
- Supports standard rock mechanics tests and coupled process management