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| **Product Name :** | **Product Code :** |
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| High-Pressure Oil/Water Relative Permeability Testing Instruments | LIM-CAT-L0046-00015 |


**Description :**

High-Pressure Oil/Water Relative Permeability Testing Instruments

**Technical Specification :**

The provides a modern instruction focused measuring instrument that allows the student to go through the experimental process in structured transparent steps. The student then builds on his basic knowledge of relative permeability and can extend it to predicting reservoir performance.
Samples are hand loaded and experimental operating conditions are established manually, thus re-enforcing the previously learned theory. Instructions on the calculation of unsteady state permeability by the Welge method are included.
The instrument is based on Darcy's law allowing the student to make effective liquid permeability measurements on core plugs and is designed to allow the establishment of a single liquid phase in a clean and dried core plug. The relative permeability measurement typically commences with a base permeability of Ko at Swir, the beginning of the drainage phase. The displacing fluid (typically a lab brine) is then flowed through the rock at a known pressure and flow rate.
The experiment is then conducted to a water cut of 99 percent or some other predetermined endpoint. The effluent is measured as a function of time, using the provided volumetric flasks and stopwatch. This allows the effective permeability for each phase to be determined. Once the effective permeability for each phase has been determined then the relative permeability at any given water saturation is determined.

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