

Pendant Drop Contact Angle and IFT Measurement



CA-ES10

Description:

Interfacial tension (IFT), as an indicator of energy at the interface of two immiscible fluids, is a crucial parameter for any Enhanced Oil Recovery (EOR) process. Drop shape analysis, specifically the pendant drop method, provides a convenient way to measure surface tension. Pendant drop tensiometry, enhanced by video-image analysis, is considered a highly accurate method for measuring the IFT of fluid/fluid interfaces across a wide range of IFT values. In this method, video images of pendant drops are digitized to determine the interface loci, enabling the measurement of IFT through the solution of the Young-Laplace equation. The wettability of the reservoir rock and interfacial tensions between reservoir fluids play a crucial role in oil recovery efficiency.

Technical Specification:

- IFT range: 3-72 mN/m
- Online special software for analyzing the shape of the drop for measuring the IFT and contact angle of the liquid-liquid systems
- Contact angle range: 5°-179°
- Working pressure: Ambient
- Working temperature: Ambient
- Automatic dosing pump
- Glass visual cell
- Digital camera 200x
- Three degrees of freedom camera positioner
- Backlight



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