

Fully Automatic Asphaltene Analyzer

Conforms to JPI-5S-45-95
 Compares to ASTM D3279-83; IP 143/82
 and UOP 614/84



Specifications:

Application.....Fuel oils, cracked residue, etc.
 Not available for samples containing toluene insoluble components such as sludge, samples containing a large amount of wax with a pour point of 50°C or higher, and brown asphalt.
 Measuring Range.....0.5 - 15 wt%
 Reproducibility..... +/- 2%
 Measuring Time.....30 seconds (excludes sample prep)
 Measuring Method.....Dual wavelength method using interference filter.
 External Interface.....RS-232C serial
 Power Supply.....110VAC or 220VAC, 50/60Hz
 Weight.....25 kg
 Dimensions..... 460 x 165 x 635mm (w x d x h)

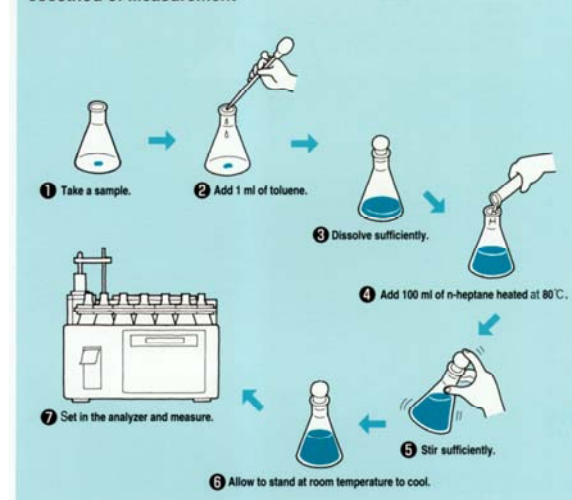
The **APD-500A** utilizes a dual wavelength spectrophotometer to determine asphaltene (n-heptane insoluble) fractions of petroleum residual oils 50 times faster than conventional methods. This rapid, fully automatic determination offers high accuracy, ease of use and significant cost savings.

Principle of Operation

A sample is dissolved with the addition of 1ml of toluene, to which 100ml of n-heptane at 80°C is added. The n-heptane addition causes asphaltene particles to precipitate. The absorbances of the solution are measured at 750nm and 850nm. The absorbance due to asphaltene particles is calculated from the ratio of absorbances of the two wavelengths. The asphaltene concentration is then determined from the calibration curve for asphaltene and the amount of sample.

This method has proven to show excellent correlation to ASTM and IP methods. Correlation coefficients greater than 0.995 (APD-500A vs. ASTM) are achieved along with improved accuracy.

Method of Measurement



Ordering Information

APD-500A - Includes 12-Position sample changer, 12 Erlenmeyer flasks w/ stoppers, 12 stir bars, 12 flask holders, printer tape, calibration standard and operation manual