Spectro Scientific
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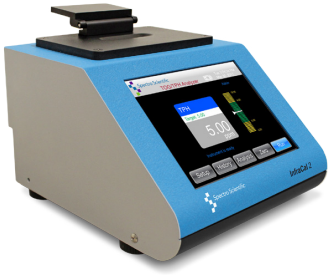
ANALYSIS PROCEDURE

High Range Oil in Water Analysis (0.5-10.0%)



INSTRUMENT SETUP

1. Turn on the InfraCal 2, using either the 18v power supply or the internal battery.
2. Allow the instrument to warm up for a minimum of 30 minutes. If the instrument has been stored in a location of extreme temperature it may require a longer stabilization time.
3. If using a volatile solvent (ie. perchloroethylene, carbon tetrachloride), attach the stainless steel lid to the top plate, P/N: 403-1088. *If you are using S-316, there is no need for a lid.*

EXTRACTION PROCEDURE

1. Materials Needed:
    a. Sample collection bottle, preferably glass. Note: the collection bottle should be large enough to hold the sample and the solvent.
    b. Graduated cylinder
    c. Filter paper (optional)
    d. Extraction solvent
2. Collect a known amount of sample. Although any amount of sample above 8 mL can be collected, it is important to remember that too small a sample will not be a good representation of the water being tested.
3. The extraction will use a 1:1 ratio. For example, if you collect 25 mL of sample, you will need to add 25 mL of solvent.
4. Add the extraction solvent directly to the sample.
5. Shake the sample and solvent mixture vigorously for 2 minutes; allow the sample to settle.
6. If the solvent layer contains particulates/solids, it is necessary to filter the solvent layer before measuring.

SAMPLE ANALYSIS PROCEDURE

1. Select the appropriate calibration from the available calibrations in the InfraCal 2.
2. Clean the sample stage crystal with approximately 1 mL of hexane and wipe in one direction (use a lint-free wipe).
3. Apply the pure extraction solvent to the crystal (1 mL), close the lid, and zero the instrument. If you are using a volatile solvent, as indicated in the instrument set-up, the instrument must have a lid. If the instrument has a lid, immediately close the lid.
4. Press the Set Zero button. Note: You must press Set Zero button when the zero is finished being measured.
5. After zeroing the instrument, wipe the sample from the crystal. Clean the crystal with hexane.
6. Apply a portion of the solvent layer (bottom layer) to the crystal (1 mL). Close the lid and press run. The instrument will display a result in 45 seconds.
7. Once the result is displayed, wipe the sample from the crystal and clean the crystal with hexane.

Note: Please refer to the instrument manual for recommended Emulsion Breaking Techniques.

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