



Thermo

ELECTRON CORPORATION

Potentiometric Titration Application Notes

Applications Log # 570

Overview The percentage of moisture in petroleum products was determined by a Preset Endpoint technique utilizing Hydranal Composite 5 one-component volumetric Karl Fischer reagent. The Orion 960 Autochemistry System determines the endpoint and calculates the percentage moisture.

Industry	Petroleum
Species Measured	% Moisture
Sample	Petroleum Products
Sample Size	0.05-1mL
Typical Concentration	
Technique	# 8 Preset Endpoint
Electrode	
Solutions	Hydranal composite 5. Methanol
Sample Prep	To condition vessel, run the method without a sample. Fill 1 or 3 mL disposable syringe with a long needle with sample and accurately record weight. Remove plug at top of vessel, quickly inject sample, and replace plug. Reweigh syringe and enter difference. Titrate.

Statistics

# of Trials	3	Mean	3.863%w/w	%CV	0.72
Analysis Time	3.0minute(s)				
Comments	Rinse the electrodes, stirrer, and dispenser probe between measurements with deionized water.				