



MicroLab FS-528 Equipment Packages

Spectrophotometry		Intro FS-528-I	Advanced 528-A	Titration FS-528-T	Conductance FS-528-C	Comprehensive FS-528-C2
Absorbance/Transmission Beer's Law, Kinetics Fluorescence, Turbidity, Backscatter	Integrated FASTspec 380-880 nm scanning spectrophotometer	●	●	●	●	●
Beer's Law path length experiments	Model 183 Vial Pack	●	●	●	●	●
Controlled temperature kinetics	Model 186 multi-path length Adapter/Vial pack					●
	Model 257 20 Watt Heater		●	●	●	●
Thermochemistry / Gas Laws						
Freezing/boiling points Supercooling Heat of reaction Absolute zero Boyles Law Vapor pressure	Model 103 Thermistor	●	●	●	●	●
	Integrated 0-2 atm pressure sensor	●	●	●	●	●
	Model 2011 Gas Pressure Syringe	●	●	●	●	●
	Model 116 Gas Pressure Apparatus					●
	Model 109 Stainless Steel Thermocouple					●
Acid-Base Chemistry / Titrations						
Titrations Visual and spectrophotometric indicator end-points.	Model 106 Sample Illumination Module	●	●	●	●	●
	Integrated rotating magnetic field stirring	●	●	●	●	●
pH, buffers, Ka, Indicators, titration curves, spectrophotometric titrations	Model 121 pH electrode		●	●	●	●
	Model 107 pH electrode holder		●	●	●	●
	Micropipette, 100 μ L		●	●	●	●
Drop-counting titrations Titration Curves 1st & 2nd derivative plots	Model 226 IR Drop Counter, non-corroding clamp			●	●	●
	Model 154 Constant Volume Drop Dispenser, non-corroding clamp			●	●	●
Reflected light indicator titrations	Model 112 Light sensor					●
Electrochemistry						
Electroplating, Avogadro's number Atomic Mass	Integrated 0-5 volt, 750 mA regulated power supply	●	●	●	●	●
Half-Cells Electrochemical Series, Nernst Equation	Model 133 Voltage Lead	●	●	●	●	●
	Model 151 Metal Kit		●	●	●	●
	Model 152 Half-cell module		●	●	●	●
Ionization Conductance Titrations	Model 160 Conductance Electrode				●	●
Redox Titrations	Model 125 Redox Probe					●

Atoms First / Visual Spectrometer

Visual Spectrometer, Fiber Optic reference Spectrum Adapter, Adjustable Color Temperature White Light Source

Atoms First Planck's Constant / Camera package			
Planck's Constant / Energy of Light	Model 214 Energy of Light Module		Atoms First course organization emphasizes spectra, atomic structure, and atomic models early in the course. This content is not well supported by traditional "wet labs". MicroLab "Atoms First" experiments provide hands-on experience with light and color, Planck's Law, atomic spectra, and atomic models.
Web camera package with camera mount for visual spectrometer. Calibrated atomic spectra measurements and atomic models.	Model 243 Web camera and mount		

The MicroLab Advantage

With three U.S. patents recently granted, MicroLab's technology and software are at the cutting edge. MicroLab's instruments are used in intro, general, analytical, physical, organic, and biochemistry laboratory courses, in undergraduate and graduate research, and in industrial and research laboratories.

Faculty can easily integrate MicroLab into existing laboratory curricula. They will save lab time, reduce sample size, cost, and prep time, and improve safety. Students will gain high resolution measurements and instant visualization of data. One MicroLab FS-528 can replace multiple single-purpose instruments.