



SYSTEM DESCRIPTION

IDSpectra™ is a compact and portable system for the rapid analysis and quantification of materials/suspensions present in solutions. It is based on a patented technology with automated liquid transport and UV/Vis spectral data collection/processing. The IDS platform is designed to be used across many industries and research disciplines and can be easily customized for a wide range of applications & requirements.

- General UV/Vis/NIR Spectroscopy
- Product Quality Control
- Biomedical Detection & Analysis
- Spectrophotometric Titrations
- Liquid Chromatography
- Food & Beverage Testing & Analysis
- Optical Density (OD) Measurements
- Adsorption Testing & Quantification
- Surfactant & Solute Identification
- Concentration Measurements
- Pigment & Nanocrystal Analysis
- Miscellaneous Research

CONTACT

PHONE: 770-745-5693

WEBSITE: www.phosphortech.com

EMAIL: info@phosphortech.com

MAILING ADDRESS

PhosphorTech Corporation
3645 Kennesaw N. Industrial Pkwy
Kennesaw, Ga 30144

RAPID UV/VIS/NIR SPECTRAL ANALYSIS WITH AUTOMATED SAMPLE TRANSPORT

INSTRUMENT

OPTICAL

Light Source	Deuterium & Tungsten Lamps
Typical Wavelength Range	190 to 850 nm (customized)
Wavelength Accuracy	+/-0.2 nm (at 656.1 nm)
Wavelength Repeatability	+/-0.1 nm
Optical Resolution	2 nm (customized)

MECHANICAL

Dispenser Channels	Four (customized)
Dispenser 1 Volume	300 ml (customized)
Dispensers 2-4 Volume	100 ml (customized)
Liquid Sample Preparation	Varies by Application
Sample Transport & Processing	Automated Liquid Handling

SOFTWARE & PLATFORM

IDSpectra™ App	Laptop/Tablet (customized)
Operating System	Windows 10
Visual Basic (VBA)	Microsoft Office
Graphical Interface	Microsoft Excel
Communication Protocol	Universal Serial Bus (USB)

ANALYSIS CAPABILITIES

UV/Vis Spectrophotometer

- Direct and quick comparison of liquid samples with references
- Detection of contaminants present & sample quality testing
- Identification of samples from spectral signatures
- Label & label-free optical detection of biomarkers & molecules

Concentration Determination

- Determination of concentration from absorbance (Beer's Law)
- Measurement of unknown concentrations using calibration data
- Detection sensitivity in the parts per million (ppm) range

Adsorption Analysis

- Determination of adsorption capacity of solids/powders
- Generation of adsorption isotherms for organic/inorganic chemicals/ions (adsorbates) onto powders/solids (adsorbents)