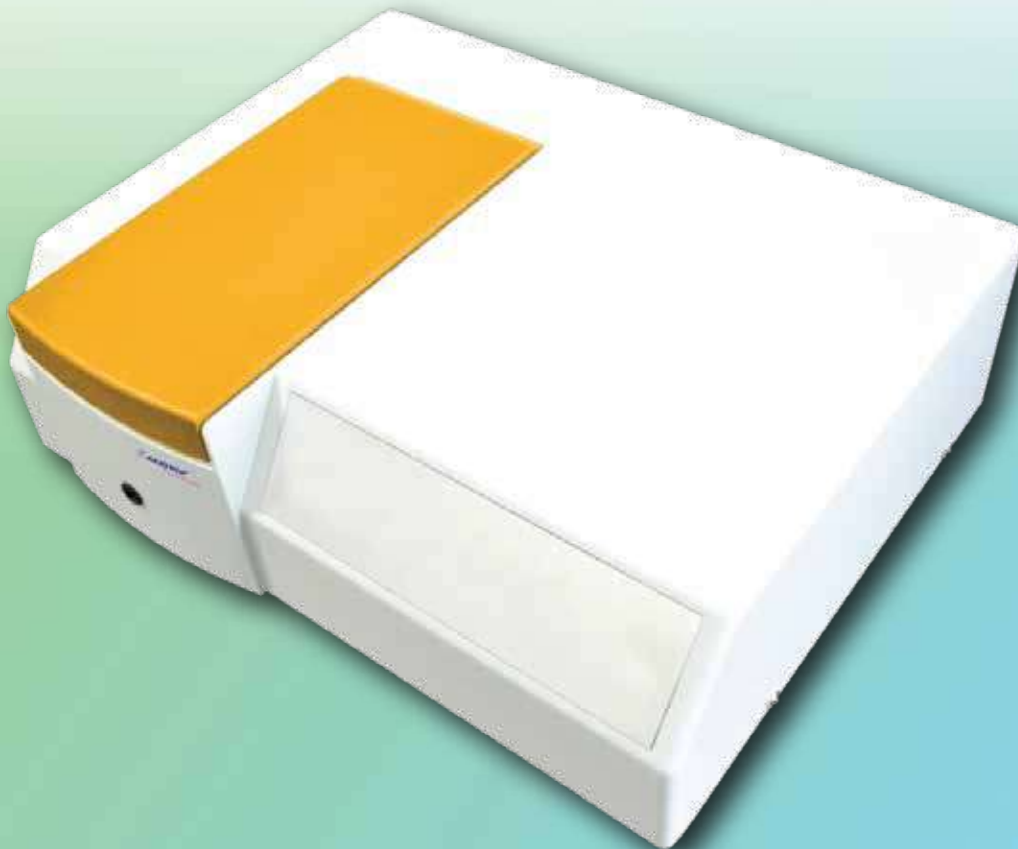


APHA Spectro 3810



EPC / PRODUCTS / APPLICATION / SOFTWARE / ACCESSORIES / CONSUMABLES / SERVICES

Analytical Technologies Limited

An ISO 9001 Certified Company

www.analyticalgroup.net

▶▶ **Product Advantage :**

Glass and Liquid Color Measurement:

APHA Spectro 3810 transmittance spectrophotometer is specially designed for measuring the material transmittance, absorbance, concentration, chromaticity and other datas. It adopts D/O structure, CLEDS, double optical path spectrum analysis technology and every test calibration technology. Instrument resolution reaches 0.0001, transmittance repeatability standard deviation is within 0.08% and chromaticity value ΔE^*_{ab} 0.015.

Adopts CLEDs illuminant

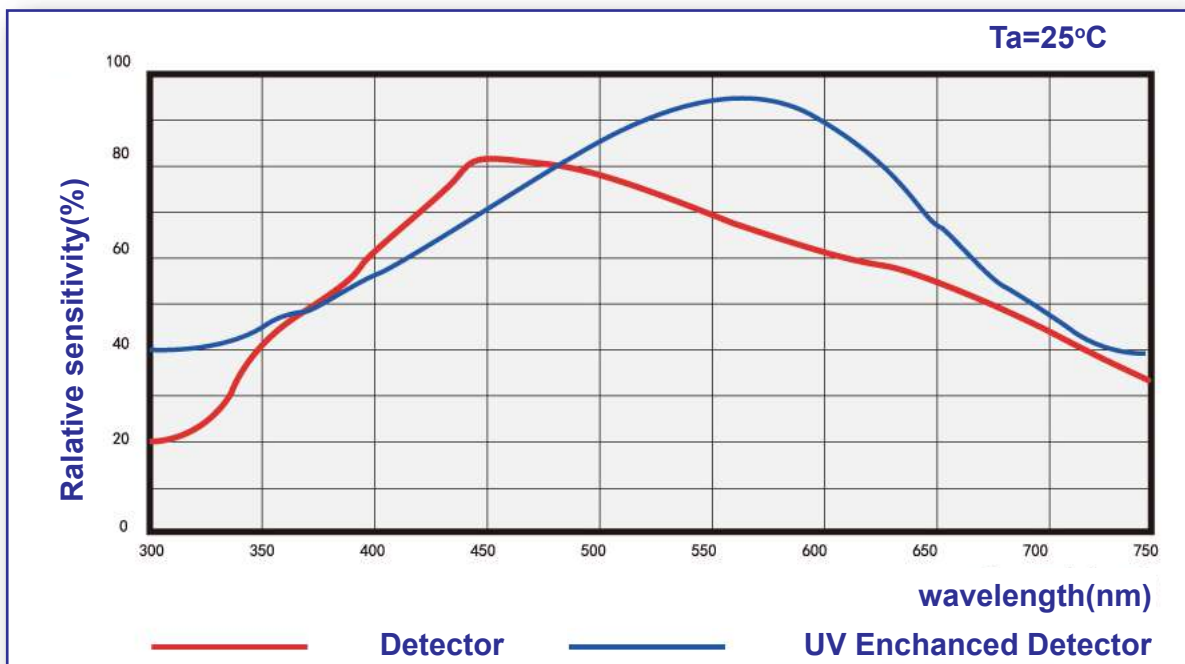
Full-band balanced light source which ensures adequate spectral distribution in the visible range, to avoid the spectral loss of white LED in a particular band, improve the measurement speed and results accuracy.

Every Test Calibration

The standard white board is inside the optical system for has reliable accuracy and repeatability in each test.

Usage of U V-enhanced Silicon Photodiode

Transmittance measure range improved from 0-100% to 0-200%



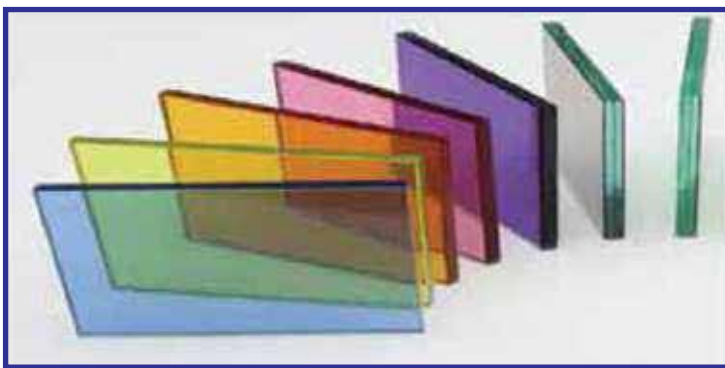
▶▶ **Application Example :**



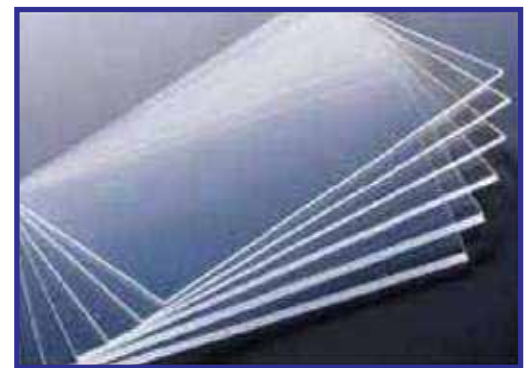
Clear liquid



Solvent



Glass



Transparent Plastic

▶▶ **Technical Data :**

| | |
|-----------------------------|--|
| Type | APHA Spectro 3810 |
| Illumination/viewing system | Viewing degree :2deg and 10deg Illumination :d /0(Diffused illumination, 0°viewing) conform to CIE No.15, ISO 7724/1, ASTM E1164,DIN 5033 Teil7, JIS Z8722 Condition c standards) |
| integrating sphere | Φ40mm,Alvan diffused reflection surface coating |
| Illumination Light source | CLEDs / Xenon lamp |
| Sensor | dual light path sensor array |
| Wavelength range | 400-700nm |
| Wavelength interval | 10nm |
| Half spectral width | 5nm |
| Reflectivity range | 0-200% |
| Reflectivity resolution | 0.01% |
| Power | AC 100 to 240V |

| | |
|----------------------------|---|
| Measurement light source | A,C,D50,D55,D65,D75,F1,F2,F3,F4,F5,F6,F7,F8,F9, F10,F11,F12, CWF,U30,DLF,NBF,TL83,TL84 |
| Data being displayed | Transmittance graph/value, chromatic value, color difference, color values (K/S), color assessment results, color tendency, history, color value simulation, manual input standard sample, generate measurement reports color difference, whiteness, yellowness and brightness index, metameric index and recipe prediction, Observer -2° and 10°. |
| Measurement time interval | 2 seconds |
| Measurement time | 0.5 seconds |
| Measurement caliber | 25.5*10mm()cuvette support) |
| Color space | CIE-L*a*b,L*C*h,CIE-L*u*v, XYZ, Yxy, Transmittance, Hunterlab, Munsell MI, CMYK |
| Color difference formulas | $\Delta E^*ab, \Delta E^*CH, \Delta E^*uv, \Delta E^*cmc(2:1), \Delta E^*cmc(1:1), \Delta E^*94, \Delta E^*00 \Delta Eab(Hunter), 555$ color classification |
| Other indicators | WI(ASTM E313-10,ASTM E313-73,CIE/ISO, AATCC, Hunter, Taube Berger, Ganz, Stensby), YI(ASTM D1925 ASTM E313-00,ASTM E313-73), Tint(ASTM E313-00, CIE,Ganz),Metamerism index Milm, Stick color fastness, Color fastness, APHA, Pt-Co, Gardner, Saybolt, Astm color |
| Repeatability | Transmittance ,standard deviation within 0.08% chromatically value : $\Delta E^*ab \leq 0.015$ (After calibration, standard deviation of 30 measurements on test white board, 5 second intervals,Maximum:0.03) |
| Inter instrument agreement | Within ΔE^*ab 0.2 |
| Interface | USB |
| Data storage | mass storage |
| Light source longevity | 5 years, 1.5 million tests |
| Size | 475*340*150mm(L*W*H) |
| Work temperature range | 0~45°C, relative humidity 80% or below (at 35°C), no condensation |
| Storage temperature range | 25°C to 55°C, relative humidity 80% or below (at 35°C), no condensation |
| Standard accessories | AC power line, color management software, drive software, USB cable, black calibration tube, 40*10mm cuvette |

▶▶ **HPLC Servicing, Validation, Trainings and Preventive Maintenance :**

- HPLC Servicing : We have team of service engineers who can attend to any make of HPLC promptly @the most affordable cost.
- Trainings :We also take up preventive maintenance to reduce downtime of HPLC’s Trainings.
- AMC’s/CMC : We offer user training both in-House and at customer sites on PLC principles, operations, troubleshooting.
- Validations : We have protocols for carrying out periodic Validations as per GLP/ GMP/U SFDA norms.
- Instruments : We offer instruments/Renting Services Modules like pumps, detector etc. on Rent.



▶▶ **About Analytical Technologies**

Analytical Technologies is synonymous for offering technologies for doing analysis and is the Fastest Growing Global Brand having presence in at least 96 countries across the globe. Analytical Technologies Limited is an ISO :9001 Certified Company engaged in Designing, Manufaturing, Marketing & providing Services for the Analytical, Chromatography, Spectroscopy, Bio Technology, Bio Medical, Clinical Diagnostics, Material Science & General Laboratory Instrumentation. Analytical Technologies, India has across the Country operations with at least 4 Regional Offices, 6 Branch Offices & Service Centers. Distributors & Channel partners worldwide.

▶▶ **Our Products & Technologies**

| | | | | | | |
|--|---|---|---|--|---|---|
|  |  |  |  |  |  |  |
| UV/VIS Spectro 2060+ Double Beam | FTIR | Gas Chromatograph 3000 | Gas Chromatograph 2979 Plus | Flash Chromatograph | Atomic Absorption Spectrophotometer | Liquid Partical Counter |
|  |  |  |  |  |  |  |
| Optical Emission Spectrophotometer | DSC/TGA | NOVA 2020 plus Automated Bio Chemistry Analyzer | HEMA 2020 Hematology Analyzer | Micro Plate Reader/Washer | URINOVA 2800 Urine Analyzer | Total Organic Carbon |
|  |  |  |  |  |  |  |
| Fully Automated CLIA | NOVA Basic Semi-Auto Chemistry Analyzer | PCR/Gradient PCR/ RTPCR | Blood Gas Analyzer | Random access Analyzer for immunoassay Proteins & clinical chemistry | Semen Analyzer | Water purification system |

▶▶ Regulatory compliances



▶▶ Corporate Social Responsibility

Analytical Foundation is a Nonprofit Organization (NGO) found for the purpose of:



Analytical Foundation

1. Research & Innovation Scientist's awards / QC Professional Award : Quality life is possible by innovation only and the innovation is possible by research only, hence ANALYTICAL FOUNDATION is committed to identify such personalities for their contributions across various field of Science and Technology and awarding them yearly. To participate for award, send us your details of research / testing / publication at info@analyticalfoundation.org

2. Improving quality of life by offering YOGA Training courses, Work shops / Seminars etc.

3. ANALYTICAL FOUNDATION aims to DETOXYFY human minds, souls and body by means of Yoga, Meditation, Ayurveda, Health Care, Awards, Media, Events, Camps etc.

▶▶ Reach us @



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