

CR - 3410

COLORSpectro



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Analytical Technologies Limited

An ISO 9001 Certified Company

www.analyticalgroup.net

►► **Economical Spectral Colorimeter**

Economical colorimeter series are economical models to measure the color difference. Instrument is with auto calibration to make it simple in operation. It contains 30 kinds of parameters and 26 kinds of illuminants. Two Apertures Version is with switchable apertures to measure samples with different sizes.

►► **Part One. Instrument Advantages**

1. Different apertures

Two Apertures / Small Aperture / Big Aperture

2. Auto calibration

3. SCI/SCE

It supports both SCI and SCE test which is more consistent with result of visual method.

4. Many different kinds of test parameters

Opacity, whiteness index, yellowness index and other 30 kinds of test parameters

5. Provide 26 Kinds of Illuminants for Choice

6. Good repeatability for stable measurement (ΔE^*_{ab} 0.08)

7. Guarantee to pass the national metrology

►► Part Two. Technical Parameter

Model	Economical (Big Aperture)	Economical (Small Aperture)	Economical(Two Apertures)
Color	Green		
Geometry	D/8 (diffused illumination,8 degree viewing) SCI (specular component included),SCE (specular component excluded)		
Repeatability	Chromaticity Value:		
	Standard deviation $\Delta E^*ab \leq 0.04$		
	Average : $dE^*ab \leq 0.05$		
	Max.: $dE^*ab \leq 0.08$		
	(when a white tile is measured 30 times at 5 seconds interval)		
Inter-instrument Agreement	$\Delta E^*ab \leq 0.4$		
Display Accuracy	0.01		
Test Aperture/ Illuminated Area	Φ8mm/Φ11mm	Φ4mm/Φ6mm	Φ8mm/Φ11mm, Φ4mm/Φ6mm
Color Space and Indices	Reflectance, CIE-Lab, CIE-LCh, Hunter Lab, CIE-Luv, XYZ, Yxy, RGB, Color Difference (ΔE^*ab , ΔE^*cmc , ΔE^*94 , ΔE^*00), Whiteness Index (ASTM E313-00, ASTM E313-73, CIE/ISO, AATCC, Hunter, Taube Berger Stensby), Yellowness Index(ASTM D1925, ASTM E313-00, ASTM E313-73), Blackness Index(My,dM), Staining Fastness, Color Fastness, Tint(ASTM E313-00), Color Density CMYK(A,T,E,M), Metamerism Index Milm, Munsell, Opacity, Color Strength		
Illuminants	A,B,C,D50,D55,D65,D75,F1,F2,F3,F4,F5,F6,F7,F8,F9,F10,F11,F12,CWF,U30,U35,DLF,NBF,TL83,TL84		
Support Color Matching Software	No		
Light Source	LED		
Camera	NO		
Calibration	Auto		
Software	Windows		
Accuracy guarantee	Pass National Metrology Level I		
Observer	2°, 10°		

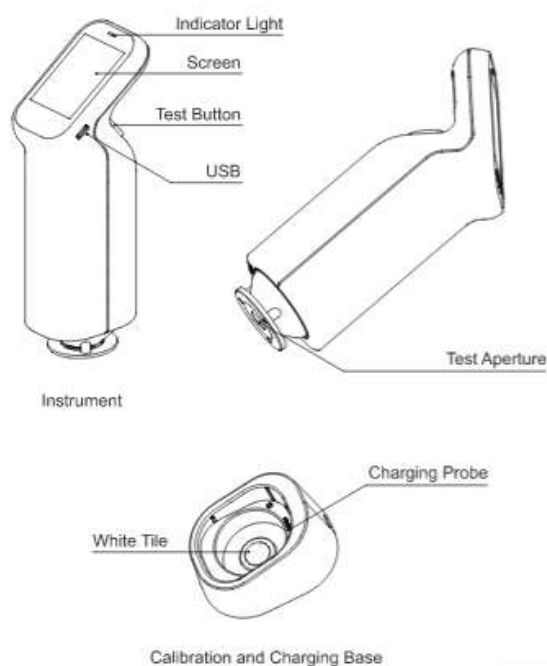
Sphere Size	40mm
Standard	Conform to CIE No.15, GB/T 3978,GB 2893,GB/T 18833,ISO7724-1,ASTM E1164,DIN5033 Teil7
Spectroscopic Method	Integrated optics
Sensor	CMOS Sensor
Wavelength	10nm
Wavelength	400-700nm
Reflectance	0-200%
Reflectance	0.01%
Reflectance	0.01%
Measurement	About 1 second
Screen	IPS full color screen ,2.4 inches
Battery	Rechargeable, 8,000 times continuous tests, 3.7V/3000mAh
Light Source	10 years, 1 million tests
Language	Chinese and English
Storage	100 pieces of data

(Note: 1、CS-410/411/412 main difference is the aperture size and quantity

2、Illuminated area is same as instrument aperture)

►► Part 3. Instrument Outlook

Economical (Big Aperture/Small Aperture) Outlook



Economical (Two Apertures) Outlook

HPLC Servicing, Validation, Trainings and Preventive Maintenance :

HPLC Servicing :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 :AMC's/CMC :We offer user training both in-House and at customer sites on HPLC principles, operations, trouble-shooting.

Validations :Validations :We have protocols for carrying out periodic Validations as per GLP/GMP/USFDA norms.

Instruments :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 global. Analytical Technologies Limited is an ISO:9001 Certified Company engaged in Designing, Manufacturing, 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 2080+
Double Beam



Infra FTIR



Optima Gas
Chromatograph
3007



Optima Gas
Chromatograph
2979 Plus



Flash
Chromatograph



Atomic Absorption
Spectrophotometer



Liquid Particle
Counter



Optical Emission
Spectrophotometer



DSC/TGA



Semi Auto Bio
Chemistry Analyzer



HEMA 2062
Hematology
Analyzer



Micro Plate
Reader/Washer



URINOVA 2800
Urine Analyzer



Total Organic
Carbon 3800



Fully Automated
CLIA



NOVA-2100
Chemistry Analyzer



PCR/Gradient PCR/
RTPCR



TOC
Analyzer



Laser Particle
Size Analyzer



Ion Chromatograph



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.



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