HACA-3650高精度分光测色仪（工业级精度）
HACA-3650 high-precision spectrophotometer (industrial precision)

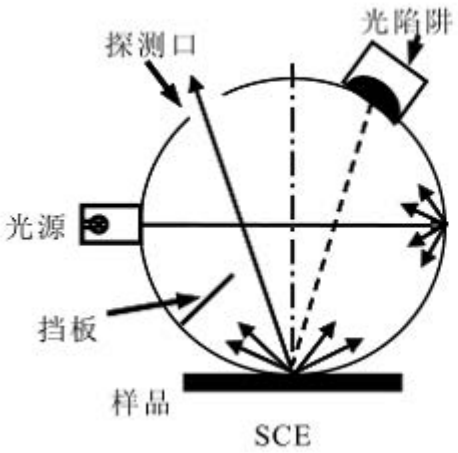
- HACA-3650高精度颜色分析仪采用先进的光学系统，具有业界一流测量精度，可实现颜色、色差、白度、黄度、铂钴指数、赛波特指数、Gardner指数、吸光度、光谱反射率、反光率、光谱透射率、透光率等参数的高精度测量，参考CIE、ISO、ASTM、DIN、JIS等国际标准和GB/T等国家标准要求设计，是颜色高精度测量的优选方案。

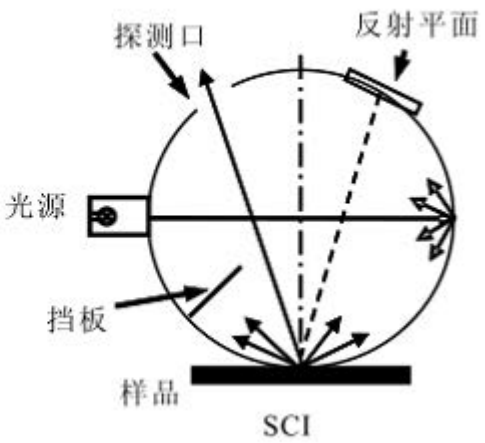
HACA-3650 high-precision color analyzer adopts advanced optical system and has first-class measurement accuracy in the industry. It can realize high-precision measurement of color, chromatic aberration, whiteness, yellowness, platinum cobalt index, Saybolt index, Gardner index, absorbance, spectral reflectance, reflectance, spectral transmittance, transmittance and other parameters. It is designed according to CIE, ISO, ASTM, DIN, JIS and other international standards and GB/T and other national standards, It is the preferred scheme for high-precision color measurement.

特点与优势 Characteristics and advantage

- 测量重复性小于0.015ΔE*ab，器间一致性达0.15ΔE*ab；
  Measurement repeatability is less than 0.015 Δ E * ab, consistency between devices up to 0.15 Δ E*ab;
- 双光束反馈系统，实时监控和补偿光源波动；
  Double beam feedback system, real-time monitoring and compensation of light source fluctuation;
- 兼容反射和透射测量，SCI 和 SCE 两种测试模式可选；
  Compatible with reflection and transmission measurement, and two test modes, SCI and SCE, are optional;
- 采用亮度高、寿命长、稳定性好的优质光源；
  High quality light source with high brightness, long service life and good stability shall be adopted;
- 优异的深色域测量表现，在测量深色材料时，仍具有较高的精度和重复性；
  Excellent performance in dark color measurement, with high accuracy and repeatability when measuring dark materials;
- UV 校正功能：对光源的 UV 成分进行有效调控，使荧光增白材料的测量更加精确；
  UV correction function: effectively regulate the UV component of the light source to make the measurement of fluorescent whitening materials more accurate;
- 多功能管理分析软件：包含颜色、反射率、透射率、遮盖率测量以及统计分析功能。
  Multifunctional management and analysis software: including color, reflectivity, transmittance, coverage measurement and statistical analysis functions.

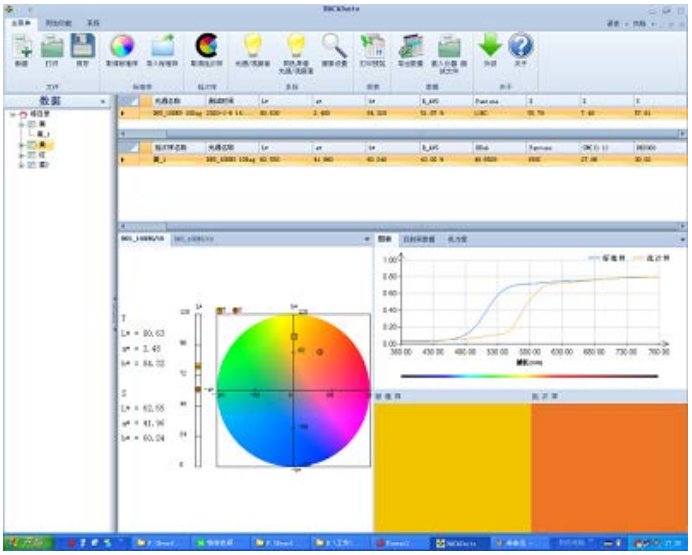
- 照明接收条件；
  Lighting receiving conditions;
- 反射：d/8（漫射照明/8° 接收）SCI/SCE同步测量
  Reflection: d/8 (diffuse illumination/8 ° reception) SCI/SCE synchronous measurement
- 透射：d/0（漫射照明/0° 接收）
  Transmission: d/0 (diffuse illumination/0 ° reception)





特点与优势 Characteristics and advantage

- 典型测试界面：
  Typical test interface:



技术参数 Specifications

型号	HACA-3650
测量几何	反射：d/8(漫射照明/8°接收)； 透射：d/0(漫射照明/0°接收)
测量功能	颜色、色差、光谱反射率曲线、光谱透射率曲线等
色空间及颜色参数	L*a*b、L*C*h、Yxy、Luv、Hunter Lab 、XYZ、RGB、△ E*ab、△ E*94、△E*00、CMC（2：1）、CMC（1：1）、同色异谱指数 MI、白度 WI（ASTM313/CIE）、黄度 YI（ASTM 313/ASTM D1925）等
波长范围	380-780nm
反射率范围	0-200%，分辨率 0.01%
重复性	色度值标准偏差ΔE*ab 小于 0.015（白板校正后，以 10 秒间隔测量白色校正板 30 次）
器间差	色板的平均ΔE*ab 值小于 0.15