

across said area from one side of said spectrum to the other.

6. The method of claim 4 wherein said light-sensitive area comprises an array of photo-sensitive elements each providing an electrical output indicative of received illumination, and wherein said step of generating electrical signals comprises sensing the electrical outputs of said photo-sensitive elements.

7. The method of claim 4 wherein said step of illuminating said light-sensitive area comprises the steps of sequentially illuminating the same area with dispersed light transmitted from each of (a) said sample, (b) said standard, and (c) a black body reference target that is illuminated by light from said light source, but not necessarily in the stated sequence, said step of generating said noise signal comprising generating electrical signals indicative of intensity of illumination of points on said area when the area is illuminated by dispersed light transmitted from said black body reference target.

8. The method of making measurements for use in color analysis comprising the steps of
impinging light from a light source upon a target of which the color is used in said analysis,
collecting light from said light source that is transmitted along a first optical collection path from said target,
generating a target signal indicative of collected light transmitted from said target,
said target including a noise component indicative of stray light in said optical path that is not derived from said target,
generating a noise signal indicative of stray light included in said collected light,
said stray light including light in said optical collection path derived from said source but which is not derived from said target, and
differentially combining said noise signal with said target signal so as to yield a corrected signal indicative of light transmitted from said target as corrected for the presence of stray light.

9. The method of claim 8 wherein said step of generating a noise signal comprises the steps of
impinging light from said light source upon a black body,
collecting light from said light source that is transmitted along a second optical collection path from said black body and concomitantly collecting light from said second optical path that is not derived from said black body.

10. The method of claim 9 wherein said first and second optical collection paths are substantially entirely the same path, and including means for alternately transmitting light along said path from said black body and from said target.

11. The method of claim 9 wherein said steps of generating target and noise signals comprise the steps of
alternately illuminating a light-sensitive area with light collected from said target and spectrally dispersed, and with light collected from said black body and spectrally dispersed,
generating and storing electrical target signals indicative of intensity of illumination of points of said area when illuminated by light from said target,
generating and storing electrical noise signals indicative of intensity of illumination of points of said area when illuminated by light from said black body,

said step of combining comprising subtracting said electrical noise signals from said electrical target signals at each of said points of said area.

12. The method of claim 9 including the steps of
impinging light from said source upon a white standard,

collecting light from said light source that is transmitted from said white standard along a third optical collection path,

generating a standard signal indicative of light collected from said white standard and including a noise component indicative of stray light in said third optical path that is not derived from said white standard,

said step of combining comprising subtracting said noise signal from each of said standard signal and said target signal.

13. The method of claim 12 including the steps of
generating a signal indicative of the ratio of (a) the combined noise and target signals to (b) the combined noise and standard signals.

14. The method of claim 13 wherein said first, second and third optical collection paths are substantially entirely the same path, and including means for alternately transmitting light along said path from said target, from said standard, and from said black body, but not necessarily in the recited order.

15. Measuring apparatus comprising

a target,

a black body,

a source of radiation,

means for illuminating both said target and black body with radiation from said source, whereby radiation is transmitted from said illuminated target and black body along a path, and

means for differentially combining radiation in said path so as to compensate for stray radiation in said path.

16. Measuring apparatus comprising

a source of radiant energy,

a plurality of targets including a first target and a black body positioned to be illuminated by energy from said source,

sensing means for generating a signal indicative of received radiant energy,

means for directing energy from said targets to said sensing means, and

means for differentially combining signals generated by said sensing means in response to receipt of energy directed from said black body and from said first target.

17. The measuring apparatus of claim 16 including a second target positioned to be illuminated by energy from said source, said means for directing energy including means for directing energy from said second target to said sensing means, said means for combining including means for differentially combining signals generated by said sensing means in response to receipt of energy directed from said black body and from said second target.

18. The apparatus of claim 17 wherein said means for directing energy comprises means for providing an energy collecting path common to transmission of energy from said targets to said sensing means, said path being nominally free of radiation that does not derive from said source.