

Instrumental whiteness assessment

■ The Polaris System

- is a System specially developed to measure and assess whiteness
- operates with modified instruments of the CM-3600 Series of Minolta Corp.
- separates fluorescence from substrate reflection
- generates information about the different contributions of whiteness



for more information:

Axiphos GmbH

D-79540 Loerrach, Germany

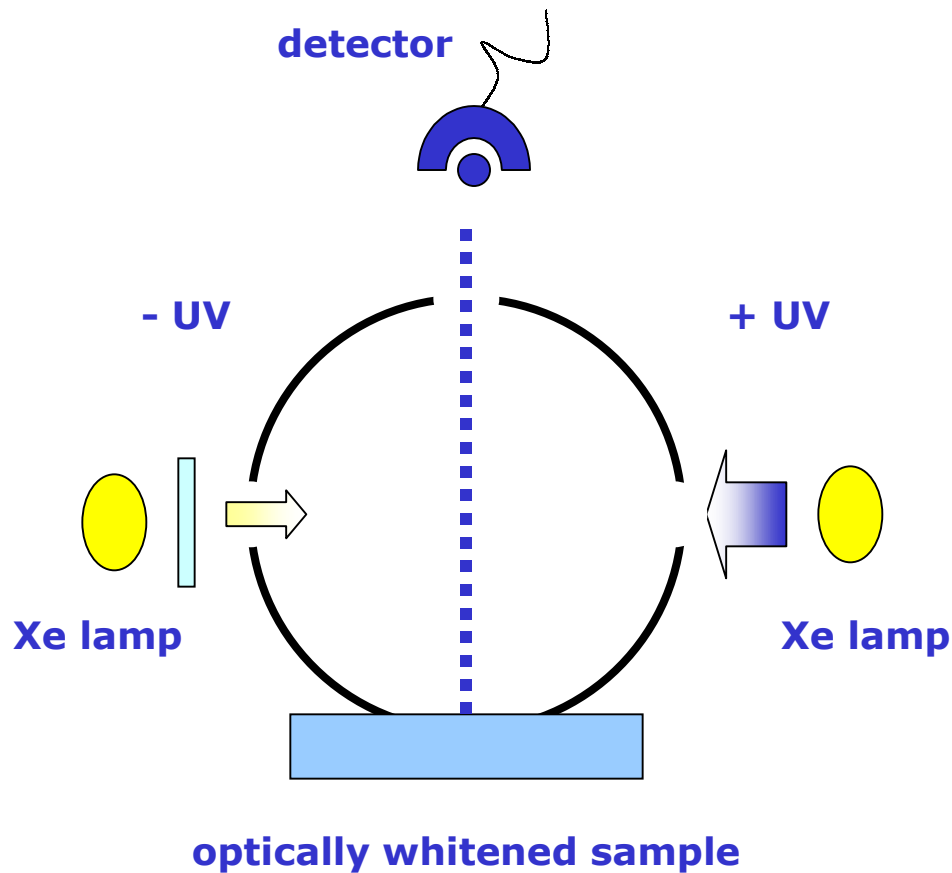
Tel/Fax: +49-7621 426693

Email: marketing@axiphos.com

<http://www.axiphos.com>

More about whiteness at <http://mitglied.lycos.de/whiteness>

Measuring principles: instrument configuration



Sample is illuminated with two flashes, each containing different amounts of UV

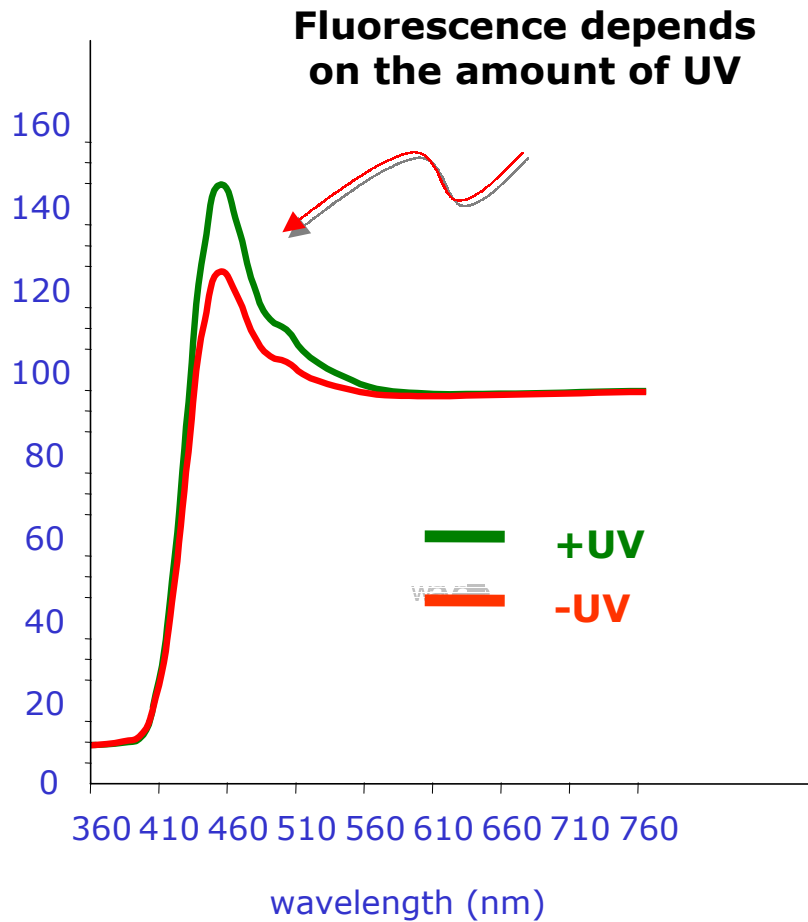


FWA is excited by the two flashes to different extents



different excitation of the FWA leads to proportionally different amounts of fluorescence

Measuring principles : measured spectra



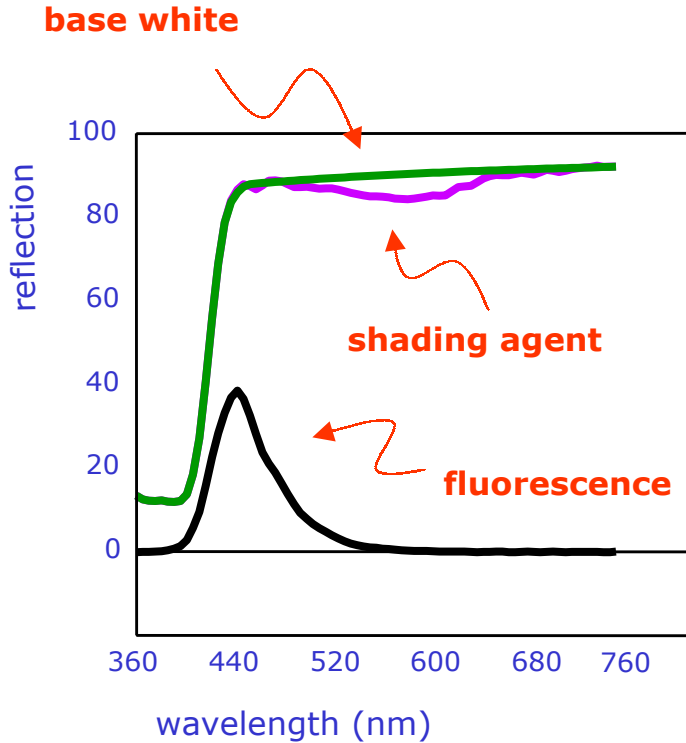
substrate reflection is independent of the illuminating source



Fluorescence amount depends directly on the intensity of UV

Measuring principles : textile sample

whiteness components are calculated



	whiteness / tint CIE	
	A	D ₆₅
Substrate	(65,+1.3)	(80,-1.7)
Substrate with shading	(73,+1.6)	(82,-0.5)
Total	(89,+1.4)	(121,+3.8)

results for different illuminants provide information about metameric effects