

Measurement of Fluorescent Brightener 28 (Excitation Spectrum)

INTRODUCTION

Fluorescent brightener 28 is yellow powder, also called calcofluor white. It is used as a stain for cellulose. When the excitation spectrum at the fluorescence wavelength of 480 nm was measured by F-7000 fluorophotometer, an excitation spectrum having peaks at around 240 and 300 nm, equivalent to the wavelength of UV light and at around 420 nm, equivalent to the wavelength of a purple light, was obtained. Each fluorophotometer has unique wavelength characteristics and by performing a spectral correction to correct for the wavelength characteristics, an accurate excitation spectrum can be obtained. The standard installation of F-7000 fluorophotometer includes the spectral correction functions for the range of 200 to 600 nm. (Refer to FL TD No.47 for the spectral correction method). The corrections at longer than 600 nm are also possible with the optional installation.

SAMPLE

Sample : Fluorescent Brightener 28 (Powder)
(Wako Pure Chemical Industries, Ltd.)

ACCESSORY

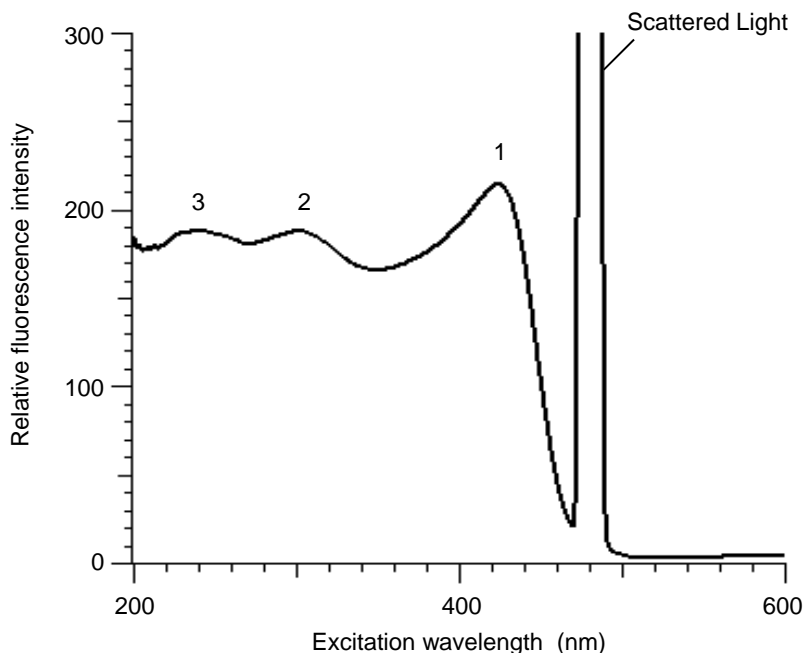
Solid Sample Holder
(P/N : 650-0161)

ANALYSIS CONDITIONS

Instrument	: F-7000			
Fluorescence wavelength	: 480 nm	Response	: Automatic	
Slit on excitation side	: 5 nm	Filter	: L37	
Slit on fluorescence side	: 5 nm	Detector	: R928F	
Scan speed	: 240 nm/min	Photomultiplier Vol.	: 250 V	

WAVELENGTH (nm)

1. 423 nm
2. 299 nm
3. 241 nm



[With Spectral Corrections]

KEY WORDS

Material/Processing Material Related, Pigment/Paint/Dye, Fluorescent Dye, Excitation Spectrum, Spectral Correction, Fluorescent Brightening Agent, Fluorescent Brightener 28, Corrected Spectrum, FL, F-7000

Fluorophotometer (FL)

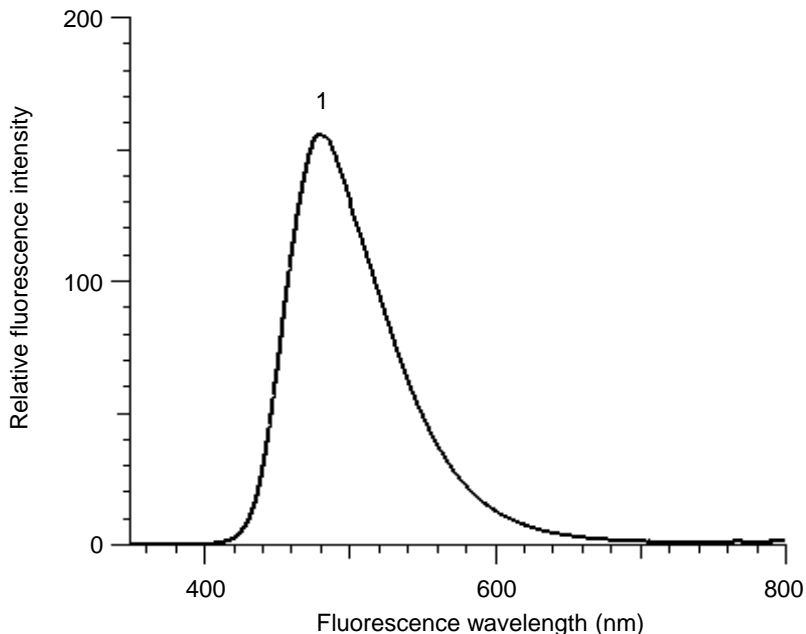
Sheet No. FL110005-01A

Measurement of Fluorescent Brightener 28 (Fluorescence Spectrum)

INTRODUCTION

Fluorescent brightener 28 is yellow powder, also called calcofluor white. It is used as a stain for cellulose. When the fluorescence spectrum at the excitation wavelength of 300 nm was measured by F-7000 fluorophotometer, a peak at around 480 nm, equivalent to the wavelength of a bluish green light, was detected. Each fluorophotometer has unique wavelength characteristics and by performing a spectral correction to correct for the wavelength characteristics, an accurate excitation spectrum can be obtained. The standard installation of F-7000 fluorophotometer includes the spectral correction functions for the range of 200 to 600 nm. (Refer to FL TD No.47 for the spectral correction method). The corrections at longer than 600 nm are also possible with the optional installation.

SAMPLE		ACCESSORY
Sample : Fluorescent Brightener 28 (Powder) (Wako Pure Chemical Industries, Ltd.)		Solid Sample Holder (P/N : 650-0161)
ANALYSIS CONDITIONS		WAVELENGTH (nm)
Instrument	: F-7000	1. 479 nm
Excitation wavelength	: 300 nm Response : Automatic	
Slit on excitation side	: 5 nm Filter : L37	
Slit on fluorescence side	: 5 nm Detector : R928F	
Scan speed	: 240 nm/min Photomultiplier Vol. : 250 V	



[With Spectral Corrections]

KEY WORDS

Material/Processing Material Related, Pigment/Paint/Dye, Fluorescent Dye, Fluorescence Spectrum, Spectral Correction, Fluorescent Brightening Agent, Fluorescent Brightener 28, Corrected Spectrum, FL, F-7000

Fluorophotometer (FL)

Sheet No. FL110005-02A

Measurement of Fluorescent Brightener 28 (3D Fluorescence Spectrum)

INTRODUCTION

Fluorescent brightener 28 is yellow powder, also called calcofluor white. It is used as a stain for cellulose. Its 3D fluorescence spectrum was measured by F-7000 fluorophotometer. The F-7000 fluorophotometer, with the scan speed of 60000 nm/min which is the fastest for the instrument class, allows high-throughput measurements. Each fluorophotometer has unique wavelength characteristics and by performing spectral corrections to correct for the wavelength characteristics, an accurate 3D fluorescence spectrum can be obtained. The standard installation of F-7000 fluorophotometer includes the spectral correction functions for the range of 200 to 600 nm. (Refer to FL TD No.47 for the spectral correction method). The corrections at longer than 600 nm are also possible with the optional installation. In addition, necessary spectra can be viewed more easily by using a filter in combination with the instrument.

SAMPLE

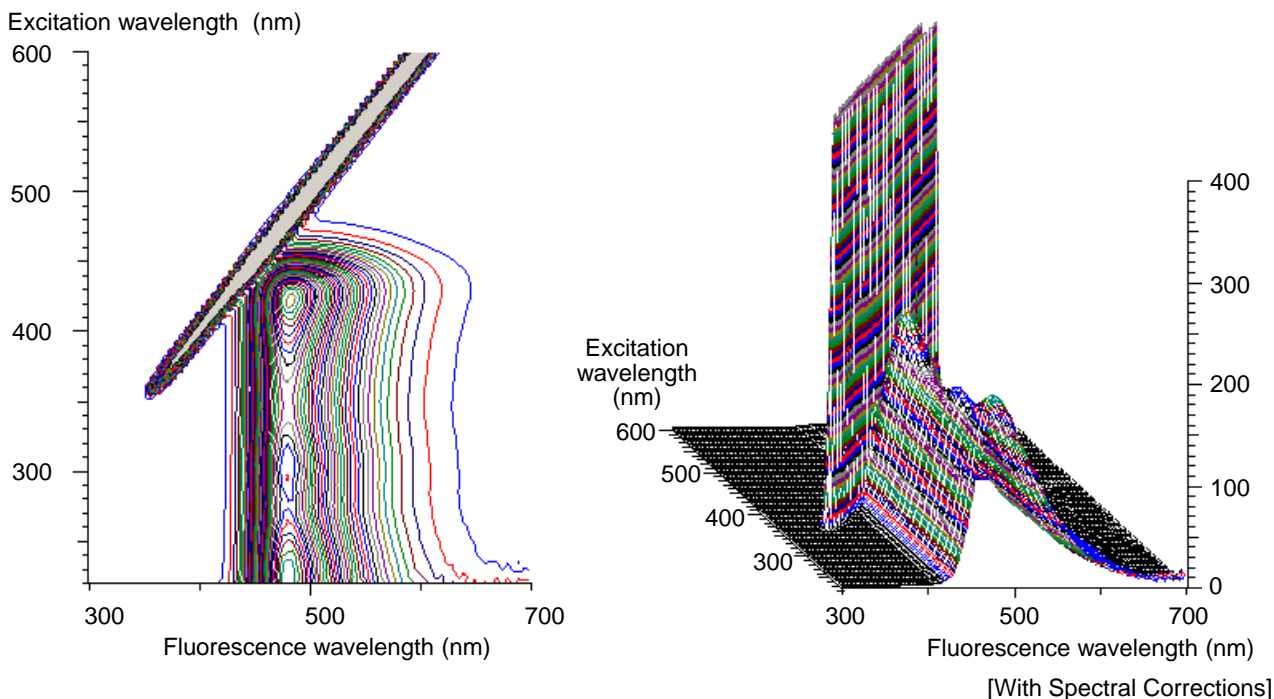
Sample : Fluorescent Brightener 28 (Powder)
(Wako Pure Chemical Industries, Ltd.)

ACCESSORY

Solid Sample Holder
(P/N : 650-0161)

ANALYSIS CONDITIONS

Instrument	: F-7000	Response	: Automatic	
Slit on excitation side	: 5 nm	Filter	: L37	Full scale : 400
Slit on fluorescence side	: 5 nm	Detector	: R928F	Contour line interval : 5
Scan speed	: 60000 nm/min	Photomultiplier Vol.	: 250 V	



KEY WORDS

Material/Processing Material Related, Pigment/Paint/Dye, Fluorescent Dye, 3D Fluorescence Spectrum, 3D, Spectral Correction, Fluorescent Brightening Agent, Fluorescent Brightener 28, Corrected Spectrum, FL, F-7000

Fluorophotometer (FL)

Sheet No. FL110005-03A