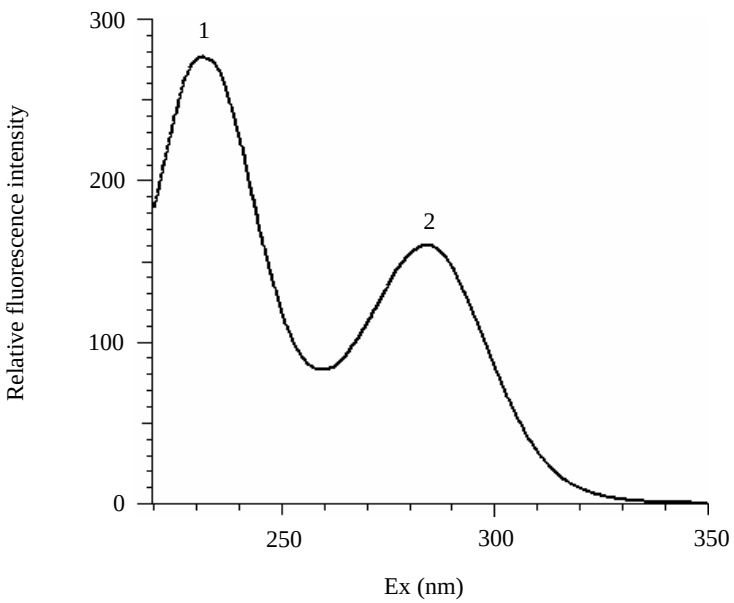
Excitation Spectrum of Low fluorescent Glass

INTRODUCTION

The fluorescence spectrum of a low fluorescent glass base material used for fluorescence microscopes, etc. was analyzed. At the excitation wavelengths higher than 350 nm, the fluorescence was not confirmed. At the wavelengths lower than 350 nm, the fluorescence was confirmed, but the intensity was about 30% of the fluorescence of an optical glass (BK-7).(Refer to DS 080011 for the fluorescence characteristics of BK-7.) For samples such as glass that transmits the excitation light, the fluorescence can be measured with high accuracy by using a solid sample holder with a transmission hole (P/N: 250-0366).

SAMPLE	ACCESSORY
SAMPLE NAME : Low fluorescent glass (for fluorescence microscopes)	Solid sample holder with a transmission hole (P/N : 250-0366) 

INSTRUMENT CONDITIONS				PEAKS (nm)
INSTRUMENT	: F-7000			1 : 232
EM WAVE LENGTH	: 380 nm	RESPONSE	: Auto	2 : 284
EX BANDPASS	: 5 nm	EM FILTER	: 310	
EM BANDPASS	: 5 nm	PHOTOMULTIPLIER	: R3788	
SCAN SPEED	: 240 nm/min	PHOTOMULTIPLIER VOL.	: 400 V	



[Corrected Spectrum]

KEY WORDS
Optical Glass, Glass, Base Material, Solid, Excitation Spectrum, FL, F-7000

Fluorophotometer (FL)

Sheet No. FL080012-01

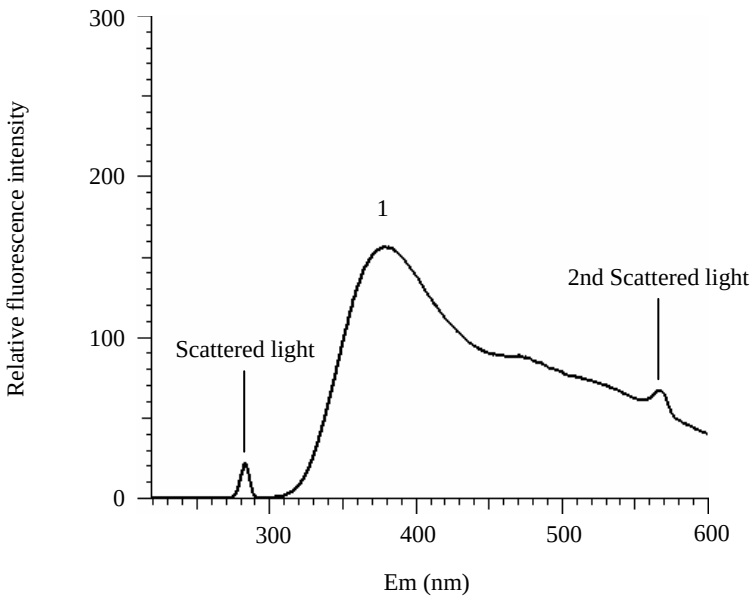
Fluorescence Spectrum of Low fluorescent Glass

INTRODUCTION

The fluorescence spectrum of a low fluorescent glass base material used for fluorescence microscopes, etc. was analyzed.
The fluorescence spectrum at the excitation wavelengths of 275 nm was obtained and the fluorescence having a peak at about 380 nm was confirmed. For samples such as glass that transmits the excitation light, the fluorescence can be measured with high accuracy by using a solid sample holder with a transmission hole (P/N: 250-0366).

SAMPLE	ACCESSORY
SAMPLE NAME : Low fluorescent glass (for fluorescence microscopes)	Solid sample holder with a transmission hole (P/N : 250-0366) 

INSTRUMENT CONDITIONS				PEAKS (nm)
INSTRUMENT	: F-7000			1 : 379
EX WAVE LENGTH	: 280 nm	RESPONSE	: Auto	
EX BANDPASS	: 5 nm	EM FILTER	: 310	
EM BANDPASS	: 5 nm	PHOTOMULTIPLIER	: R3788	
SCAN SPEED	: 240 nm/min	PHOTOMULTIPLIER VOL.	: 400 V	



[Corrected Spectrum]

KEY WORDS
Optical Glass, Glass, Base Material, Solid, Excitation Spectrum, FL, F-7000

Fluorophotometer (FL)

Sheet No. FL080012-02

3D Fluorescence Spectrum of Low fluorescent Glass

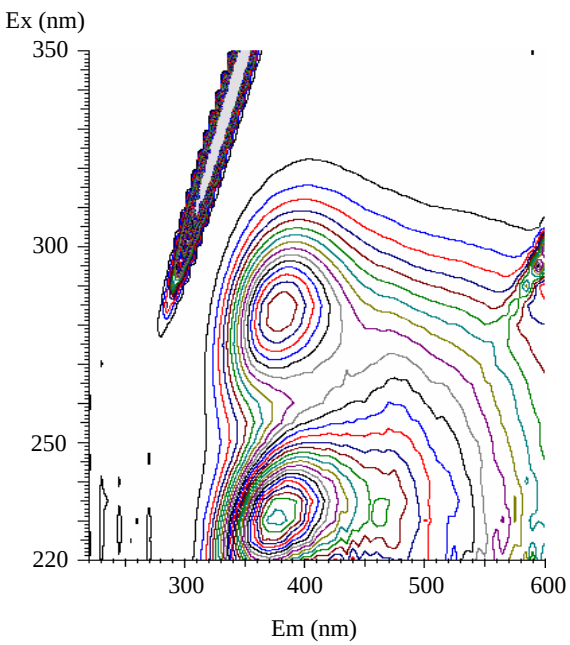
INTRODUCTION

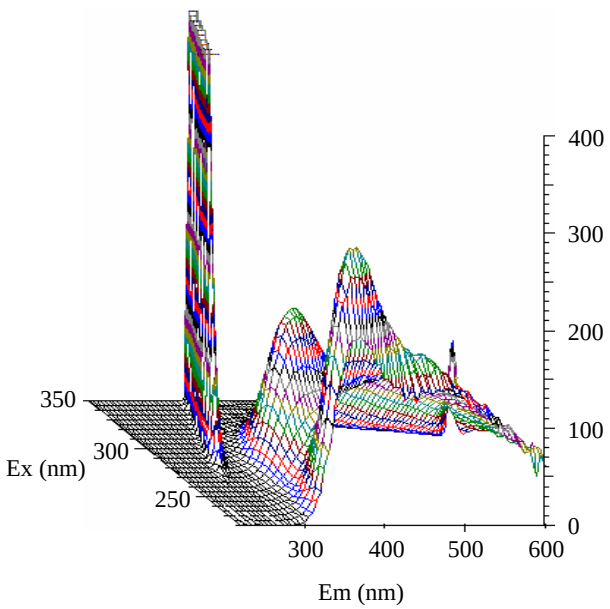
The fluorescence spectrum of a low fluorescent glass base material used for fluorescence microscopes, etc. was analyzed. By obtaining the three-dimensional fluorescence spectrum, the characteristic excitation and fluorescence wavelengths of the sample can be obtained at once. For samples such as glass that transmits the excitation light, the fluorescence can be measured with high accuracy by using a solid sample holder with a transmission hole (P/N: 250-0366).

SAMPLE	ACCESSORY
SAMPLE NAME : Low fluorescent glass (for fluorescence microscopes)	Solid sample holder with a transmission hole (P/N : 250-0366) 

INSTRUMENT CONDITIONS

INSTRUMENT	: F-7000				
EX BANDPASS	: 5 nm	RESPONSE	: Auto	FULLSCALE	: 400
EM BANDPASS	: 5 nm	EM FILTER	: 310	DIVISION NUMBER	: 10
SCAN SPEED	: 60000 nm/min	PHOTOMULTIPLIER	: R3788		
		PHOTOMULTIPLIER VOL.	: 400 V		





KEY WORDS

Optical Glass, Glass, Base Material, Solid, Three-dimension, Three-dimensional Fluorescence Spectrum, FL, FL-7000

Fluorophotometer (FL)

Sheet No. FL080012-03