Absorption Spectrum of Green Dopant Marerials for OLED Display (Coumarin 6)

INTRODUCTION

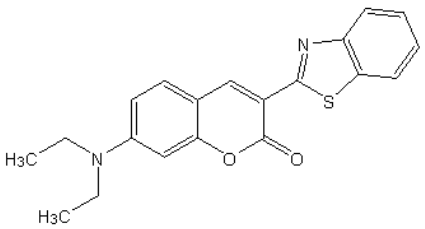
Coumarin 6 is one of the green-emitting phosphorescence used for organic EL (Organic Electro Luminescence) emitting layers.
The fluorescence properties of Coumarin 6 were confirmed by using F-7000.
Spectral corrections are necessary to obtain accurate emission properties. By using F-7000 with the substandard light source and R928F photomultiplier, the spectral corrections over a broad wavelength range, from the UV to visible region (200 - 800 nm), are possible.

SAMPLE

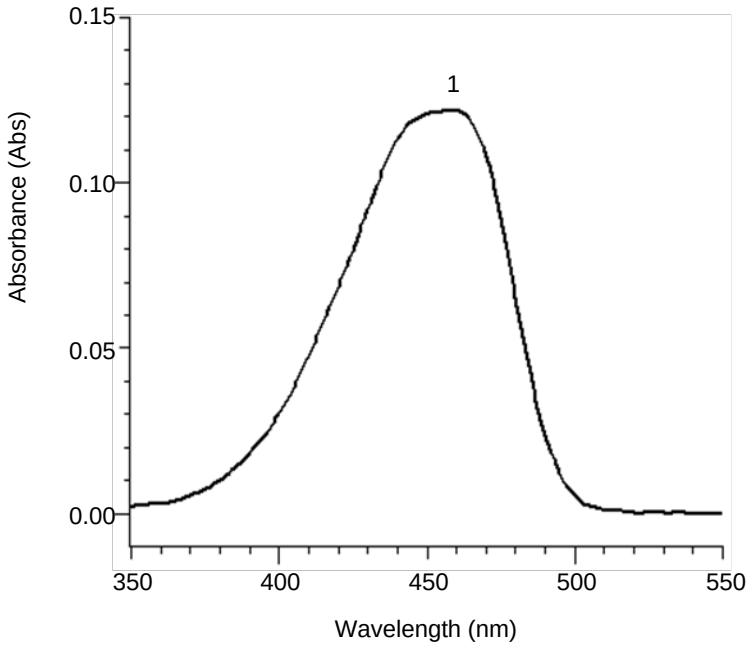
Sample : Coumarin 6
$C_{20}H_{18}N_2O_2S$ mol.wt. 350.44
(Sigma-Aldrich, Tokyo, Japan)

Solven : Ethanol

Concentration : 500 μg/L



ANALYSIS CONDITIONS		WAVELENGTH (nm)
Instrument	: U-3900H	1. 459 nm
Scan speed	: 300 nm/min	
Slit	: 2 nm	



KEY WORDS
Material·Processing Material Related,
Other Material·Processing Material Related,
Green Dopant Materials for OLED Display, Coumarin 6, Absorption Spectrum, Green Dopant Materials, OLED, UV, U-3900H, FL, F-7000

Fluorophotometer (FL)

Sheet No. FL100007-01

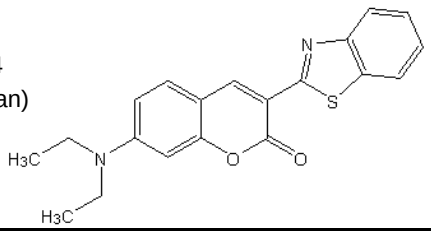
Excitation Spectrum of Green Dopant Marerials for OLED Display (Coumarin 6)

INTRODUCTION

Coumarin 6 is one of the green-emitting phosphorescence used for organic EL (Organic Electro Luminescence) emitting layers.
The fluorescenc properties of Coumarin 6 were confirmed by using F-7000.
Spectral corrections are necessary to obtain accurate emission properties. By using F-7000 with the substandard light source and R928F photomultiplier, the spectral corrections over a broad wavelength range, from the UV to visible region (200 - 800 nm), are possible.

SAMPLE

Sample : Coumarin 6 (Coumarin 6)
$C_{20}H_{18}N_2O_2S$ mol.wt. 350.44
(Sigma-Aldrich, Tokyo, Japan)



Solvent : Ethanol

Concentration : 10 μg/L

ACCESSORY

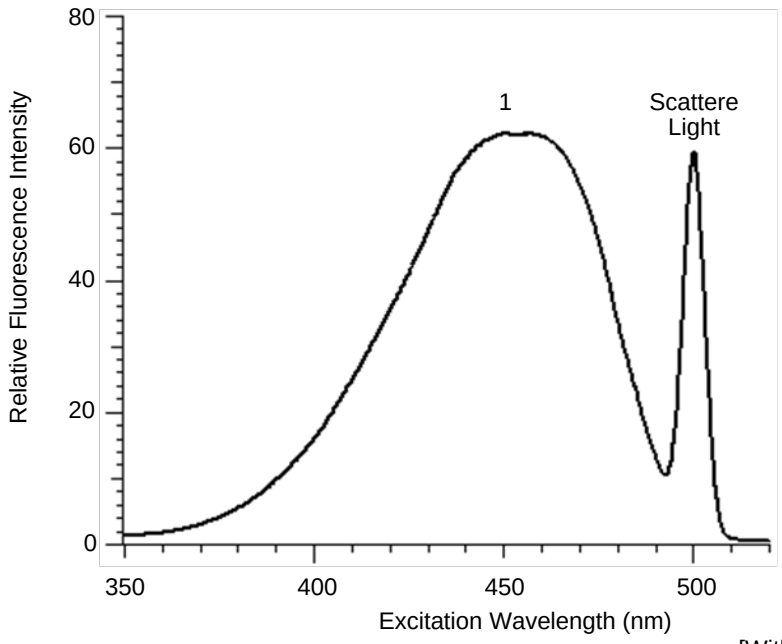
Substandard Light Source
(P/N : 5J0-0135/5J0-0136)

Analysis Conditions

Instrument	: F-7000		
Fluorescence wavelength	: 500 nm	Response	: Automatic
Slit on excitation side	: 5 nm	Detector	: R928F
Slit on fluorescence side	: 5 nm	Photomultiplier voltage	: 400 V
Scan speed	: 1200 nm/min		

Wavelength (nm)

1. 450 nm



[With Spectral Corrections]

KEY WORDS
Material·Processing Material Related,
Other Material·Processing Material Related,
Green Dopant Materials for OLED Display, Coumarin 6, Excitation Spectrum,
Green Dopant Materials, OLED, FL, F-7000

Fluorophotometer (FL)

Sheet No. FL100007-02

Fluorescence Spectrum of Green Dopant Marerials for OLED Display (Coumarin 6)

INTRODUCTION

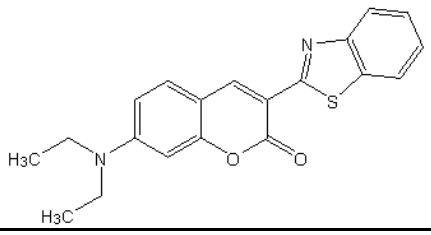
Coumarin 6 is one of the green-emitting phosphorescence used for organic EL (Organic Electro Luminescence) emitting layers.
The fluorescenc properties of Coumarin 6 were confirmed by using F-7000.
Spectral corrections are necessary to obtain accurate emission properties. By using F-7000 with the substandard light source and R928F photomultiplier, the spectral corrections over a broad wavelength range, from the UV to visible region (200 - 800 nm), are possible.

SAMPLE

Sample : Coumarin 6
$C_{20}H_{18}N_2O_2S$ mol.wt. 350.44
(Sigma-Aldrich, Tokyo, Japan)

Solvent : Ethanol

Concentration : 10 μg/L



ACCESSORY

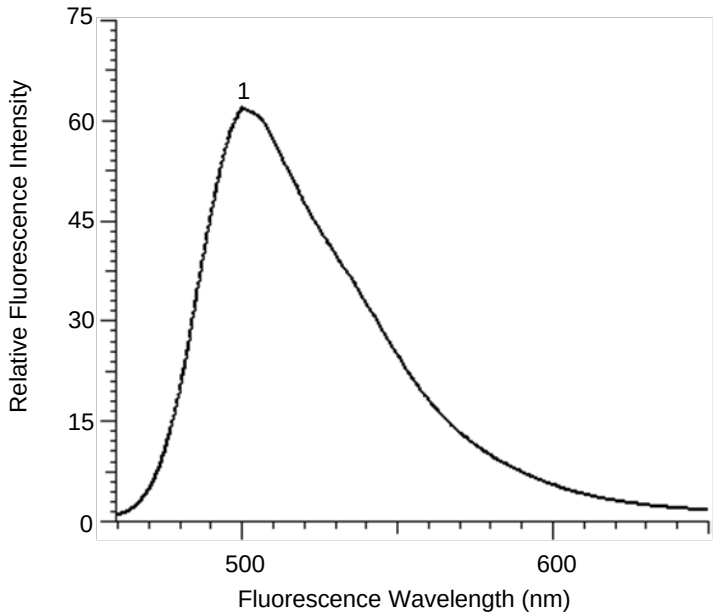
Substandard Light Source
(P/N : 5J0-0135/5J0-0136)

ANALYSIS CONDITIONS

Instrument	: F-7000		
Excitation wavelength	: 450 nm	Response	: Automatic
Slit on excitation side	: 5 nm	Detector	: R928F
Slit on fluorescence side	: 5 nm	Photomultiplier voltage	: 400 V
Scan speed	: 1200 nm/min		

WAVELENGTH (nm)

1. 500 nm



[With Spectral Corrections]

KEY WORDS
Material·Processing Material Related,
Other Material·Processing Material Related,
Green Dopant Materials for OLED Display, Coumarin 6,
Fluorescence Spectrum, Green Dopant Marerials, OLED, FL, F-7000

Fluorophotometer (FL)

Sheet No. FL100007-03

3D Fluorescence Spectrum of Green Dopant Marerials for OLED Display (Coumarin 6)

INTRODUCTION

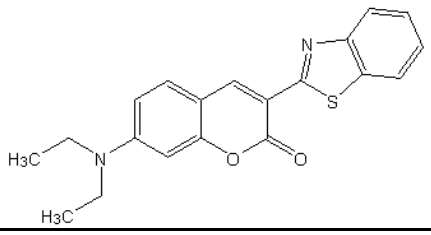
Coumarin 6 is one of the green-emitting phosphorescence used for organic EL (Organic Electro Luminescence) emitting layers.
The fluorescenc properties of Coumarin 6 were confirmed by using F-7000.
Spectral corrections are necessary to obtain accurate emission properties. By using F-7000 with the substandard light source and R928F photomultiplier, the spectral corrections over a broad wavelength range, from the UV to visible region (200 - 800 nm), are possible.

SAMPLE

Sample : Coumarin 6
$C_{20}H_{18}N_2O_2S$ mol.wt. 350.44
(Sigma-Aldrich, Tokyo, Japan)

Solvent : Ethanol

Concentration : 10 μg/L

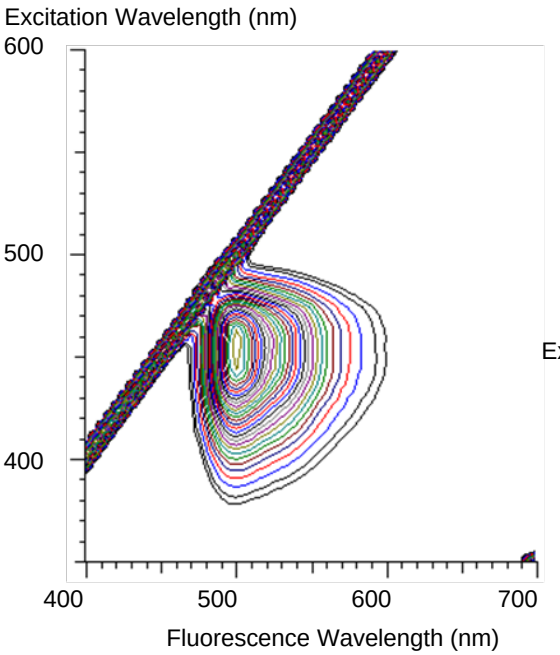


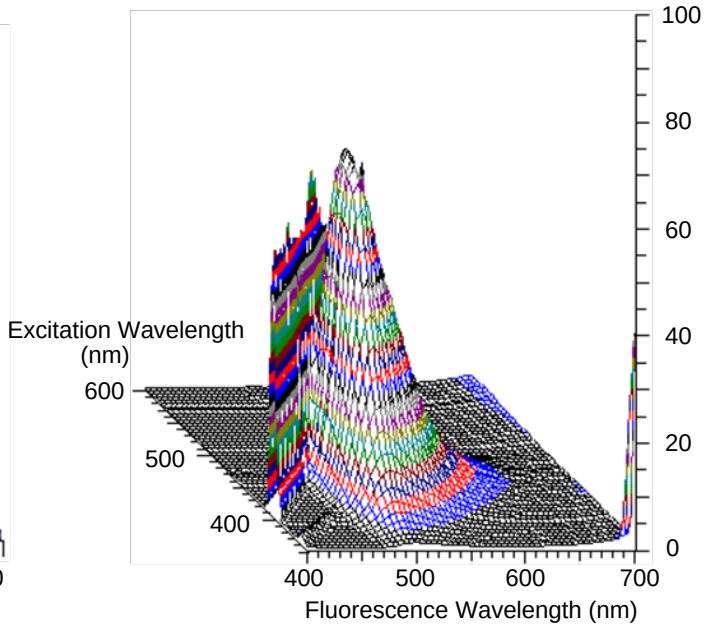
ACCESSORY

Substandard Light Source
(P/N : 5J0-0135/5J0-0136)

ANALYSIS CONDITIONS

Instrument	: F-7000				
Excitation wavelength	: 450 nm	Response	: Automatic	Full scale	: 100
Slit on excitation side	: 5 nm	Detector	: R928F	Contour line interval	: 2
Slit on fluorescence side	: 5 nm	Photomultiplier	: 400 V		
Scan speed	: 60000 nm/min				





[With Spectral Corrections]

KEY WORDS
Material·Processing Material Related, Other Material·Processing Material Related, Green Dopant Materiasl for OLED Display, Coumarin 6, 3D Fluorescence Spectrum, 3D, Green Dopant Materials, OLED, FL, F-7000

Fluorophotometer (FL)

Sheet No. FL100007-04

Calibration Curve of Green Dopant Marerials for OLED Display (Coumarin 6)

INTRODUCTION

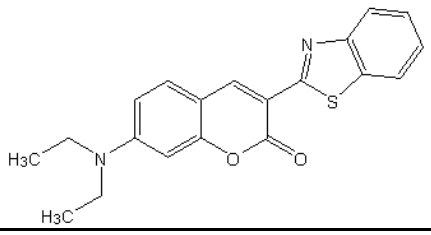
Coumarin 6 is one of the green-emitting phosphorescence used for organic EL (Organic Electro Luminescence) emitting layers.
The fluorescenc properties of Coumarin 6 were confirmed by using F-7000.
Spectral corrections are necessary to obtain accurate emission properties. By using F-7000 with the substandard light source and R928F photomultiplier, the spectral corrections over a broad wavelength range, from the UV to visible region (200 - 800 nm), are possible.

SAMPLE

Sample : Coumarin 6
$C_{20}H_{18}N_2O_2S$ mol.wt. 350.44
(Sigma-Aldrich, Tokyo, Japan)

Solvent : Ethanol

Concentration : 0 to 100 μg/L

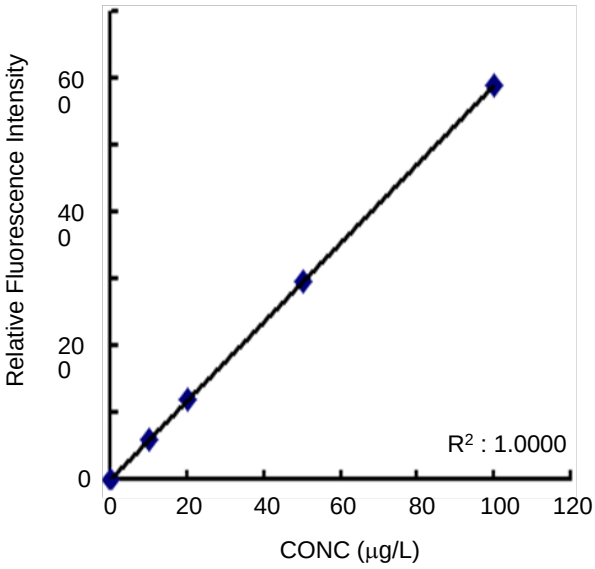


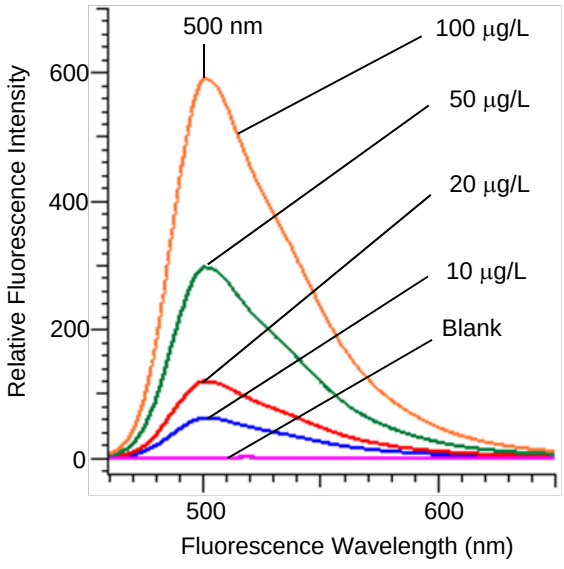
ACCESSORY

Substandard Light Source
(P/N : 5J0-0135/5J0-0136)

ANALYSIS CONDITIONS

Instrument	: F-7000				
Excitation wavelength	: 450 nm	Response	: Automatic	Calibration curve	
Slit on excitation side	: 5 nm	Detector	: R928F	Fluorescence wavelength	: 500 nm
Slit on fluorescence side	: 5 nm	Photomultiplier	: 400 V		
Scan speed	: 1200 nm/min				





[With Spectral Corrections]

KEY WORDS
Material·Processing Material Related,
Other Material·Processing Material Related,
Green Dopant Materials for OLED Display, Coumarin 6, Calibration Curve,
Green Dopant Materials, OLED, Working Curve, FL, F-7000

Fluorophotometer (FL)

Sheet No. FL100007-05