

Measurement of Fluorescent dye pyrolysis behavior

INTRODUCTION

The pyrolysis behavior of thermally decomposable fluorescent dye was analyzed. The fluorescent dye absorbs light at 300 nm to 500 nm and emits green fluorescence at about 540 nm. When the dye was heated to 25°C to 95°C, the fluorescent intensity decreased gradually with heating and it was completely decomposed at about 55°C.

F-7000 offers the world's fastest scan speed (60,000 nm/min) and allows the 3D time change measurement to analyze the change in the fluorescence spectrum at constant intervals. The data can be obtained at a minimum of every 2 seconds. By using the electric thermostatic cell holder with the function programmable for the temperature changes at set times, the data shown here can be obtained.

SAMPLE

SAMPLE NAME : Thermodecomposable fluorescent dye (green)

ACCESSORY

Programmable electronic thermostatic cell holder

INSTRUMENT CONDITIONS

INSTRUMENT : F-7000

WAVE LENGTH : 350 nm

RESPONSE : Auto

FULLSCALE : 400

EX BANDPASS : 10 nm

EM FILTER : 390

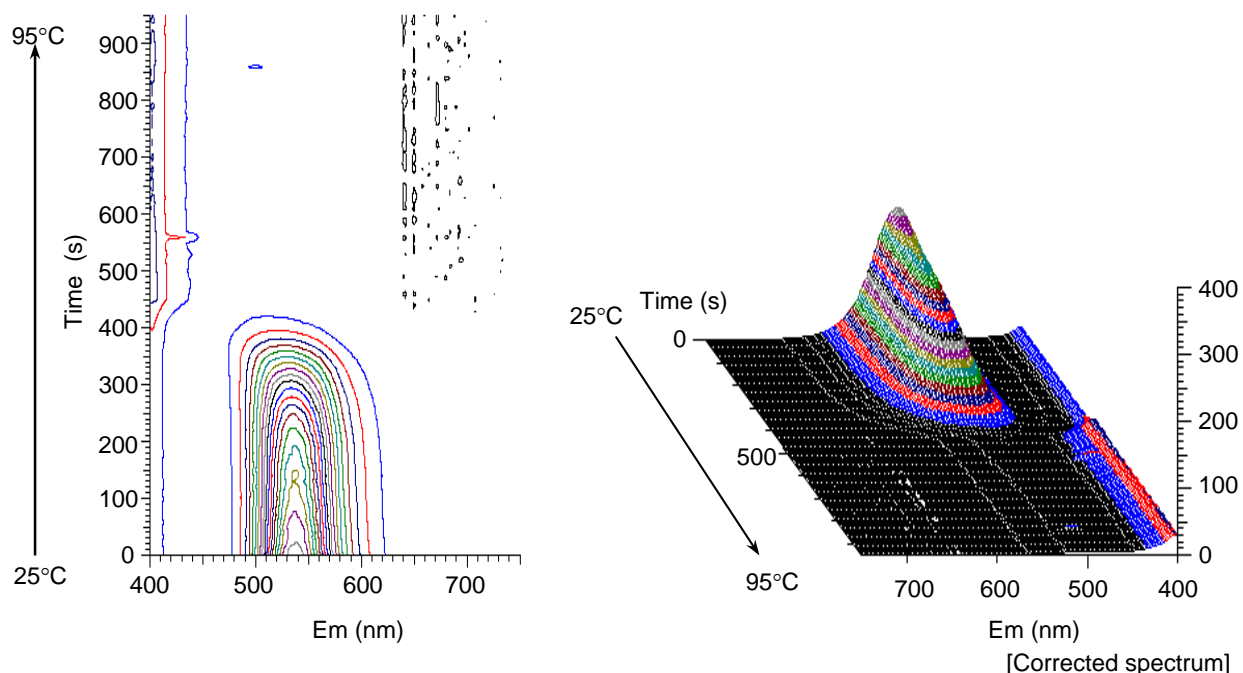
DIVISION NUMBER : 10

EM BANDPASS : 10 nm

PHOTOMULTIPLIER : R928F

SCAN SPEED : 60000 nm/min

PHOTOMULTIPLIER VOL. : 400 V



KEY WORDS

Material-Processing Material Related, Pigment·Coating·Dye, Ink, Fluorescence, Pyrolysis, Dye, Temperature Change, 3D Fluorescence Spectrum, 3D, Fluorescent Dye Pyrolysis Behavior, Fluorescence Spectrum, FL, F-7000

Fluorophotometer (FL)

Sheet No. FL090019-01

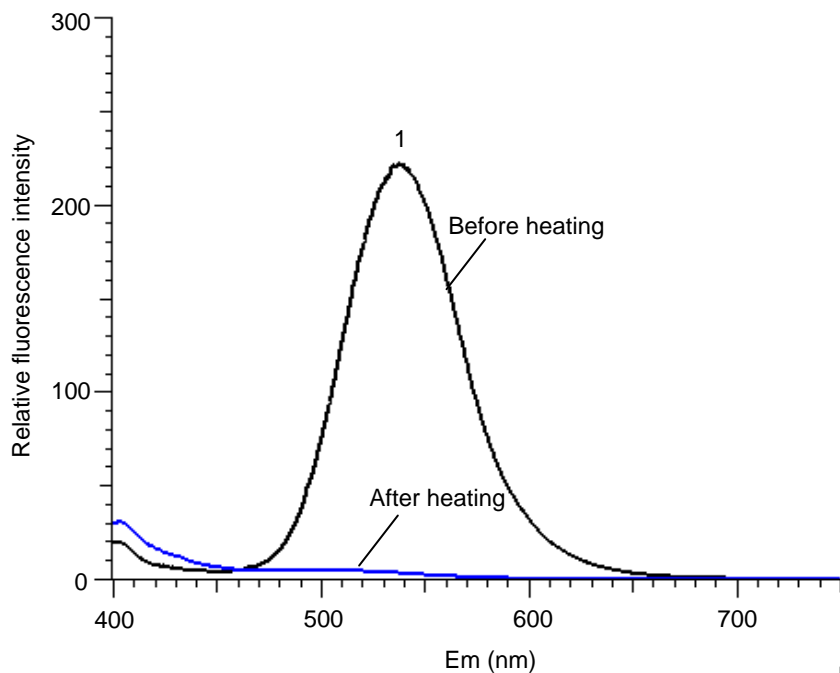
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SAMPLE	ACCESSORY
SAMPLE NAME : Thermodecomposable fluorescent dye (green)	Programmable electronic thermostatic cell holder
INSTRUMENT CONDITIONS	PEAKS (nm)
INSTRUMENT : F-7000 WAVE LENGTH : 350 nm RESPONSE : Auto EX BANDPASS : 10 nm EM FILTER : 390 EM BANDPASS : 10 nm PHOTOMULTIPLIER : R928F SCAN SPEED : 60000 nm/min PHOTOMULTIPLIER VOL. : 400 V	1 : 537



KEY WORDS

Material-Processing Material Related, Pigment-Coating-Dye, Ink, Fluorescence, Pyrolysis, Dye, Temperature Change, Fluorescence Spectrum, Fluorescent Dye Pyrolysis Behavior, Fluorescence Spectrum, FL, F-7000

Fluorophotometer (FL)

Sheet No. FL090019-02

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INTRODUCTION

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SAMPLE

SAMPLE NAME : Thermodecomposable fluorescent dye (green)

ACCESSORY

Programmable electronic thermostatic cell holder

INSTRUMENT CONDITIONS

INSTRUMENT : F-7000

WAVE LENGTH : 350 nm

RESPONSE : Auto FULLSCALE : 500

EX BANDPASS : 10 nm

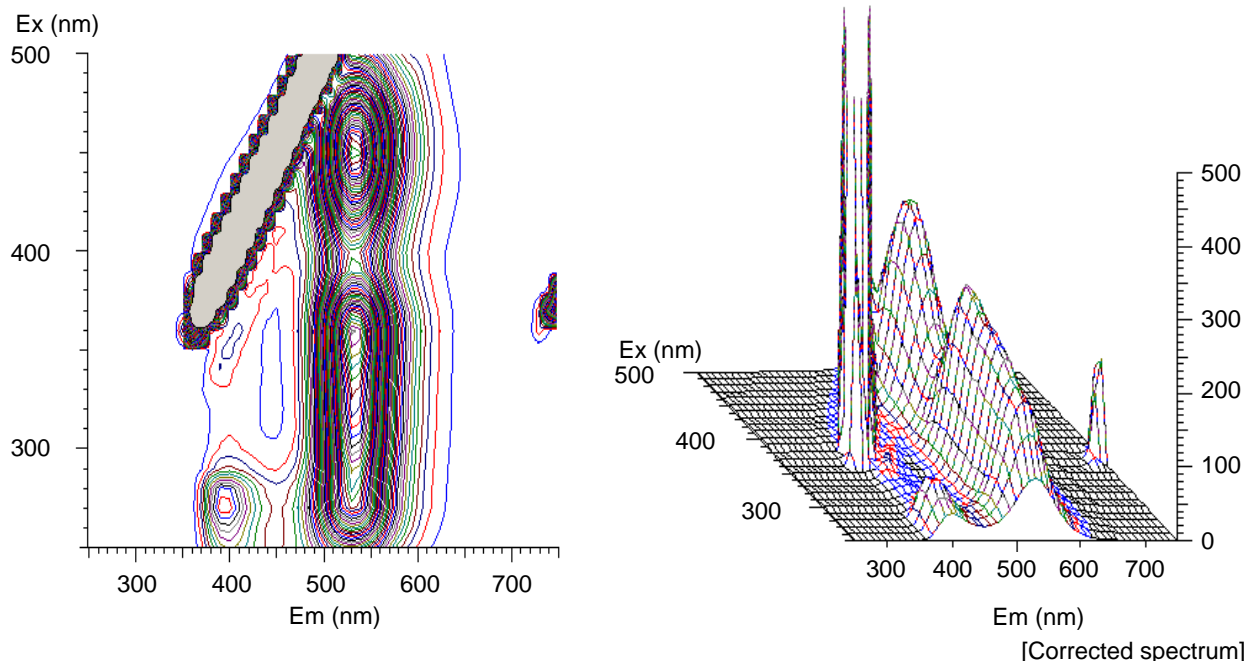
EM FILTER : 390 DIVISION NUMBER : 10

EM BANDPASS : 10 nm

PHOTOMULTIPLIER : R928F

SCAN SPEED : 60000 nm/min

PHOTOMULTIPLIER VOL. : 400 V



KEY WORDS

Material-Processing Material Related, Pigment·Coating·Dye, Ink, Fluorescence, Pyrolysis, Dye, Temperature Change, 3D Fluorescence Spectrum, 3D, Fluorescent Dye Pyrolysis Behavior, Fluorescence Spectrum, FL, F-7000

Fluorophotometer (FL)

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