

Title (en)

DEVICE AND METHOD FOR DETECTING FLUORESCENT AND PHOSPHORESCENT LIGHT

Title (de)

VORRICHTUNG UND VERFAHREN ZUR DETEKTION VON FLUORESZENTEM UND PHOSPHORESZENTEM LICHT

Title (fr)

DISPOSITIF ET PROCEDE POUR LA DETECTION DE LA LUMIERE FLUORESCENTE ET PHOSPHORESCENTE

Publication

EP 0943087 B1 20030813 (DE)

Application

EP 97954730 A 19971209

Priority

- DE 19651101 A 19961209
- EP 9706879 W 19971209

Abstract (en)

[origin: US6297509B1] The apparatus has an illuminating device for illuminating sheet material with clocked excitation light. Both during the light phase of clocked excitation light and during the dark phase of clocked excitation light a sensor detects an intensity of the light emitted by the sheet material in each case. In an evaluation device an intensity of fluorescently emitted light and an intensity of phosphorescently emitted light are derived from the intensities detected in the light phase and in the dark phase of clocked excitation light. In order to ensure long preillumination with high intensity, the sensor preferably detects the intensities of emitted light within, and toward the end (in the transport direction) of, the area of the sheet material illuminated by the illuminating device. Additionally the illuminated area of the sheet material is selected to be so great that it is a multiple of the desired resolution.

IPC 1-7

G01N 21/64; **G07D 7/00**

IPC 8 full level

G01N 21/64 (2006.01); **G07D 7/00** (2006.01); **G07D 7/12** (2016.01)

CPC (source: EP US)

G07D 7/12 (2013.01 - EP US)

Cited by

EP2056260B1; EP2754137B1; EP3147873B1

Designated contracting state (EPC)

AT BE CH DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)

US 6297509 B1 20011002; AT E247280 T1 20030815; AU 5984098 A 19980703; CN 1096608 C 20021218; CN 1244920 A 20000216; DE 19651101 A1 19980610; DE 59710585 D1 20030918; EP 0943087 A1 19990922; EP 0943087 B1 20030813; JP 2001506001 A 20010508; JP 3790931 B2 20060628; RU 2170420 C2 20010710; UA 48284 C2 20020815; WO 9826276 A1 19980618

DOCDB simple family (application)

US 31924699 A 19990809; AT 97954730 T 19971209; AU 5984098 A 19971209; CN 97181461 A 19971209; DE 19651101 A 19961209; DE 59710585 T 19971209; EP 9706879 W 19971209; EP 97954730 A 19971209; JP 52621098 A 19971209; RU 99114596 A 19971209; UA 99073904 A 19971209