



Europäisches Patentamt  
European Patent Office  
Office européen des brevets



(11) Publication number:

**0 340 523 A3**

(12)

## EUROPEAN PATENT APPLICATION

(21) Application number: **89106919.7**

(51) Int. Cl.<sup>5</sup>: **G03G 5/14**

(22) Date of filing: **18.04.89**

(30) Priority: **19.04.88 JP 96144/88**

(43) Date of publication of application:  
**08.11.89 Bulletin 89/45**

(84) Designated Contracting States:  
**DE FR GB IT**

(88) Date of deferred publication of the search report:  
**23.10.91 Bulletin 91/43**

(71) Applicant: **mitsubishi kasei corporation**  
**5-2, Marunouchi 2-chome Chiyoda-ku**  
**Tokyo 100(JP)**

(72) Inventor: **Otsuka, Shigenori**  
**3-110 Takahana-cho**  
**Omiya-shi Saitama-ken(JP)**

(74) Representative: **TER MEER - MÜLLER -**  
**STEINMEISTER & PARTNER**  
**Mauerkircherstrasse 45**  
**W-8000 München 80(DE)**

(54) **Electrophotographic photoreceptor.**

(57) According to the present invention, there is provided a layered-type organic electrophotographic photoreceptor in which a charge generating layer containing organic charge generating material and a charge transporting layer containing organic charge transporting material are constructed on an electroconductive support, characterized in that a value  $n$  is not greater than 0.5 in the following equation (1):

$$\eta = \eta_0 E^n \quad (1)$$

where  $\eta$  represents a quantum yield as the whole photoreceptor,  $E$  represents an electric field and  $\eta_0$  represents a constant, and that a film thickness of said charge transporting layer is not less than 30  $\mu\text{m}$ .

**EP 0 340 523 A3**



European  
Patent Office

## EUROPEAN SEARCH REPORT

Application Number

EP 89 10 6919

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.5)
X	DATABASE WPIL, no. 88-109107, Derwent Publications Ltd, London, GB; JP-A-63058451 (Bando Chem Ind) 14-03-1988 * Abstract, line 11 * -- --	1-5	G 03 G 5/047
X	PATENT ABSTRACTS OF JAPAN vol. 9, no. 40 (P-336)(1763) 20 February 1985, & JP-A-59 180562 (TOSHIBA K.K.) 13 October 1984, * the whole document * -- --	1-5	
X	GB-A-1 337 222 (XEROX CORPORATION) * page 4, lines 17 - 21 ** page 5, line 123 - page 6, line 10 ** lines 27 - 36; claims 1-3 * -- --	1-5	
X	EP-A-0 120 581 (XEROX CORPORATION) * abstract; claim 10 ** page 10, paragraph 3 - page 11, paragraph 1 @ page 15, line 3 @ page 16, line 14 @ page 23, line 16 ** page 26, line 5 * -- --	1-5	
X	DE-A-3 034 564 (HITACHI, LTD.) * claims 1-3 ** page 16, paragraph 4 ** page 18, paragraph 2 @ page 21, paragraph 2 @ page 23, paragraph 2 @ page 33, paragraph 1 ** page 40, paragraph 3 * -- --	1-5	TECHNICAL FIELDS SEARCHED (Int. Cl.5)
P,X	EP-A-0 289 216 (XEROX CORPORATION) * abstract; claims 1, 14 ** page 10, lines 20 - 30 ** page 11, lines 35 - 55 ** page 14, line 27 * -- -- -- --	1-5	G 03 G
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of search 29 August 91	Examiner VOGT C.H.C.
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention		E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons ----- & : member of the same patent family, corresponding document	