

(19)



Europäisches Patentamt
European Patent Office
Office européen des brevets



(11)

EP 0 813 118 A3

(12)

EUROPEAN PATENT APPLICATION

(88) Date of publication A3:
07.01.1998 Bulletin 1998/02

(51) Int Cl.⁶: **G03G 9/09, G03G 9/087,
G03G 9/097**

(43) Date of publication A2:
17.12.1997 Bulletin 1997/51

(21) Application number: **97303745.0**

(22) Date of filing: **03.06.1997**

(84) Designated Contracting States:
**AT BE CH DE DK ES FI FR GB GR IE IT LI LU MC
NL PT SE**

(30) Priority: **10.06.1996 JP 147651/96**

(71) Applicant: **MITA INDUSTRIAL CO. LTD.
Osaka-shi Osaka 540 (JP)**

(72) Inventors:
• **Shimizu, Yoshitake
Chuo-ku, Osaka-shi, Osaka 540 (JP)**

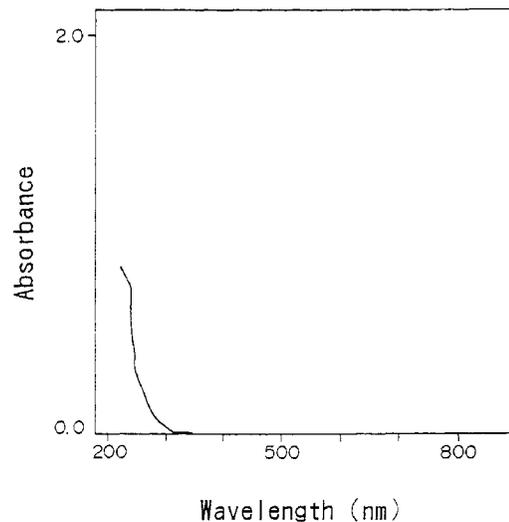
- **Nagao, Kazuya
Chuo-ku, Osaka-shi, Osaka 540 (JP)**
- **Funato, Masatomi
Chuo-ku, Osaka-shi, Osaka 540 (JP)**
- **Ishimaru, Seijiro
Chuo-ku, Osaka-shi, Osaka 540 (JP)**
- **Toshimitsu, Masatoshi
Chuo-ku, Osaka-shi, Osaka 540 (JP)**

(74) Representative: **W.P. THOMPSON & CO.
Eastcheap House
Central Approach
Letchworth, Hertfordshire SG6 3DS (GB)**

(54) Toner for two-component type developer

(57) There is provided a toner for a two-component type developer, which comprises (i) toner particles comprising a fixing resin having anionic polar groups, a coloring agent, and a magnetic powder which is used in an amount of 0.1 to 5 parts by weight for 100 parts by weight of the fixing resin, and (ii) an additive comprising silica, alumina and titania, and being adhered on surfaces of the toner particles in a total amount of 0.15 to 2 parts by weight for 100 parts by weight of the toner particles, and contains substantially no charge control agent. The toner exhibits a stable chargeability during a long-term use without generation of a spent toner. As a result, the toner suppresses the image fogging and the toner scattering, and ensures a stable image density and a high image quality for a long term.

FIG. 1



EP 0 813 118 A3



European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 97 30 3745

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.6)
A	EP 0 703 504 A (MITA INDUSTRIAL CO LTD) * page 20 - page 21; example 7.1 * * page 26; tables 6,7 * ---	1-10	G03G9/09 G03G9/087 G03G9/097
A	EP 0 703 503 A (MITA INDUSTRIAL CO LTD) * page 12 - page 13; example 2.1 * * page 21; table 5 * ---	1-10	
A	EP 0 357 042 A (TDK CORP) * page 8; example 1 * ---	1-10	
A	EP 0 467 439 A (AGFA GEVAERT NV) * page 8; example 1 * -----	1-10	
			TECHNICAL FIELDS SEARCHED (Int.Cl.6)
			G03G
The present search report has been drawn up for all claims			
Place of search		Date of completion of the search	Examiner
THE HAGUE		27 October 1997	Vogt, 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	

EPO FORM 1503 03 82 (P04001)