

(19)



Europäisches Patentamt

European Patent Office

Office européen des brevets



(11)

**EP 0 756 199 A3**

(12)

**EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:  
**05.03.1997 Bulletin 1997/10**

(51) Int. Cl.<sup>6</sup>: **G03C 1/04, G03C 1/005**

(43) Date of publication A2:  
**29.01.1997 Bulletin 1997/05**

(21) Application number: **96202085.5**

(22) Date of filing: **23.07.1996**

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

(30) Priority: **27.07.1995 US 1580**  
**19.12.1995 US 574833**

(71) Applicant: **EASTMAN KODAK COMPANY**  
**Rochester, New York 14650-2201 (US)**

(72) Inventor: **Maskasky, Joe Edward,**  
**c/o Eastman Kodak Co.**  
**Rochester, New York 14650-2201 (US)**

(74) Representative: **Nunney, Ronald Frederick**  
**Adolphe et al**  
**Kodak Limited**  
**Patent Department**  
**Headstone Drive**  
**Harrow Middlesex HA1 4TY (GB)**

**(54) High bromide ultrathin tabular grain emulsions**

(57) An improved spectrally sensitized ultrathin tabular grain emulsion is disclosed in which tabular grains (a) having {111} major faces, (b) containing greater than 50 mole percent bromide, based on silver, (c) accounting for greater than 70 percent of total grain projected area, (d) exhibiting an average equivalent circular diameter of at least 0.7 μm, and (e) exhibiting an average thickness of less than 0.07 μm, show an enhanced capability for chemical sensitization by reason of employing a cationic starch as a peptizer.

A photographic element is disclosed comprised of a support, a first silver halide emulsion layer coated on the support and sensitized to produce a photographic record when exposed to specular light within the minus blue visible wavelength region of from 500 to 700 nm, a second silver halide emulsion layer capable of producing a second photographic record coated over the first silver halide emulsion layer to receive specular minus blue light intended for the exposure of the first silver halide emulsion layer, the second silver halide emulsion layer being capable of acting as a transmission medium for the delivery of at least a portion of the minus blue light intended for the exposure of the first silver halide emulsion layer in the form of specular light, wherein the second silver halide emulsion layer is comprised of the improved spectrally sensitized ultrathin tabular grain emulsion of the invention.

**EP 0 756 199 A3**



European Patent  
Office

EUROPEAN SEARCH REPORT

Application Number  
EP 96 20 2085

| 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) |
| Y  | FR-A-2 290 690 (VEB FILMFABRIK WOLFEN)<br>* page 2, line 8 - line 27 *<br>* page 2, line 35 - line 37 *<br>* page 3, line 1 - line 3 *<br>* page 3, line 17 - line 22 *<br>---  | 1-10  | G03C1/04<br>G03C1/005                        |
| Y  | BE-A-568 154 (GEVAERT)<br>* page 2, line 25 - page 3, line 10 *<br>* page 4, line 4 - line 9 *<br>* page 5, line 1 - line 21; claim 5 *<br>---  | 1-10  |  |
| Y  | RESEARCH DISCLOSURE,<br>vol. 232, no. 12, August 1983, HAVANT GB,<br>pages 261-264, XP002022287 "Tabular grain<br>silver bromide emulsions, photographic<br>elements incorporating these emulsions,<br>and processes for their preparation and<br>use"<br>* page 261, right-hand column, line 42 -<br>line 73 *<br>* page 262, right-hand column, line 31 -<br>line 43 *<br>* page 262, right-hand column, line 79 -<br>line 85 *<br>* page 263, right-hand column, line 77 -<br>line 79 *<br>----- | 1-10  |  |
|  |   |   | TECHNICAL FIELDS<br>SEARCHED (Int.Cl.6)      |
|  |   |   | G03C   |
| The present search report has been drawn up for all claims   |   |   |  |
| Place of search<br>THE HAGUE   |   | Date of completion of the search<br>8 January 1997  | Examiner<br>Magrizos, S                      |
| CATEGORY OF CITED DOCUMENTS<br>X : particularly relevant if taken alone<br>Y : particularly relevant if combined with another document of the same category<br>A : technological background<br>O : non-written disclosure<br>P : intermediate document |   | T : theory or principle underlying the invention<br>E : earlier patent document, but published on, or after the filing date<br>D : document cited in the application<br>L : document cited for other reasons<br>.....<br>& : member of the same patent family, corresponding document |  |

EPO FORM 1503 03.82 (P04C01)