

Title (en)

Photographic silver bromiodide emulsions, elements and processes

Title (de)

Photographische Silberbromojodidemulsionen, Elemente und Verfahren

Title (fr)

Emulsions, éléments et procédés photographiques au bromo-iodure d'argent

Publication

EP 0432834 B1 19960515 (EN)

Application

EP 90203208 A 19901206

Priority

US 45014489 A 19891213

Abstract (en)

[origin: EP0432834A1] A photographic silver bromiodide emulsion comprises a dispersing medium and silver bromiodide that (a) is octahedral silver bromiodide; (b) has a grain size within the range of 0.45 to 1.2 microns; (c) contains 1 to 12 mole percent iodide; (d) has a core region (A), a surface region (B) and a subsurface region (C) between core region (A) and surface region (B); wherein (i) subsurface region (C) contains an iodide concentration higher than the iodide concentration of core region (A); and, (e) the silver bromiodide is prepared by a process comprising, in sequence, (I) a nucleation step comprising mixing bromide or bromiodide salts and silver salts in a reaction medium; then, (II) a crystal growth step under controlled pBr conditions within the range of 1.75 to 4.2 pBr enabling formation of core region (A) comprising 50% to 90% by weight of the silver bromiodide; then, (III) addition to the composition from (II) of iodide salt in which 25 to 100 mole percent of the total iodide salt is added to the composition resulting from step (II) within a time period of 1 second to 20 minutes; then, (IV) holding the reaction mixture from step (III) for a time period of 0.5 second to 20 minutes that aids in formation of subsurface region (C); then, (V) addition of silver salts or, optionally, the combination of silver salts and bromide to the reaction mixture from step (IV) until reaction completion forming surface region (B). Such photographic silver bromiodide emulsions are useful in photographic silver halide materials to provide increased photographic speed of the materials.

IPC 1-7

G03C 1/035; **G03C 1/015**; **G03C 7/30**

IPC 8 full level

G03C 1/015 (2006.01); **G03C 1/035** (2006.01); **G03C 7/30** (2006.01)

CPC (source: EP)

G03C 1/015 (2013.01); **G03C 1/035** (2013.01); **G03C 7/3022** (2013.01)

Cited by

EP0566417A3; US6159672A; EP1055967A1; DE19516351A1; US5726005A; US5736310A; EP0718679A1; US6242168B1

Designated contracting state (EPC)

BE DE FR

DOCDB simple family (publication)

EP 0432834 A1 19910619; **EP 0432834 B1 19960515**; CA 2029579 A1 19910614; DE 69027009 D1 19960620; DE 69027009 T2 19970123; JP 2909220 B2 19990623; JP H03278048 A 19911209

DOCDB simple family (application)

EP 90203208 A 19901206; CA 2029579 A 19901108; DE 69027009 T 19901206; JP 40196790 A 19901213