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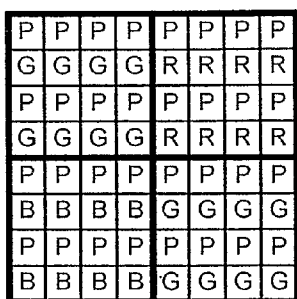
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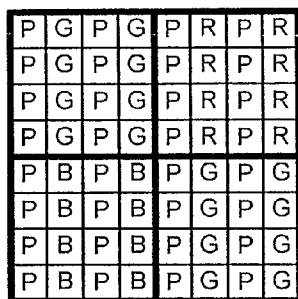
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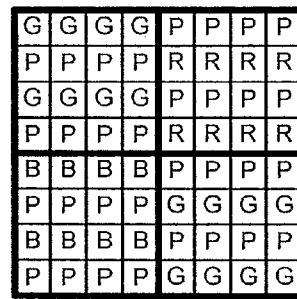
(54) Title: IMAGE SENSOR WITH IMPROVED LIGHTSENSITIVITY



A



B



C

(57) Abstract: An image sensor for capturing a color image is disclosed having a two-dimensional array having first and second groups of pixels wherein pixels from the first group of pixels have narrower spectral photoresponses than pixels from the second group of pixels and wherein the first group of pixels has individual pixels that have spectral photoresponses that correspond to a set of at least two colors. Further, the placement of the first and second groups of pixels defines a pattern that has a minimal repeating unit including at least twelve pixels. The minimal repeating unit has a plurality of cells wherein each cell has at least two pixels representing a specific color selected from the first group of pixels and a plurality of pixels selected from the second group of pixels (panchromatic = white pixels) arranged to permit the reproduction of a captured color image under different lighting conditions .

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INTERNATIONAL SEARCH REPORT

International application No
PCT/US2006/027454

A. CLASSIFICATION OF SUBJECT MATTER
INV. H04N9/04

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 4 437 112 A (TANAKA NOBUYOSHI [JP] ET AL) 13 March 1984 (1984-03-13) column 8, lines 3,4; figure 9F column 9, lines 18-20	1-88
X	GB 2 105 143 A (SHARP KK [JP]) 16 March 1983 (1983-03-16) figures 8b,8c	1,88
X	EP 0 472 299 A1 (CANON KK [JP]) 26 February 1992 (1992-02-26) figures 1a,2,8,12	1
X	EP 0 119 862 A2 (NIPPON ELECTRIC CO [JP]) 26 September 1984 (1984-09-26) figures 9,11	1,88
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See patent family annex.

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INTERNATIONAL SEARCH REPORT

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C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2004/046881 A1 (UTAGAWA KEN [JP]) 11 March 2004 (2004-03-11) figures 9,11 -----	1,88

INTERNATIONAL SEARCH REPORT

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