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(54) Title: COLOR-OPTIMIZED IMAGE SENSOR

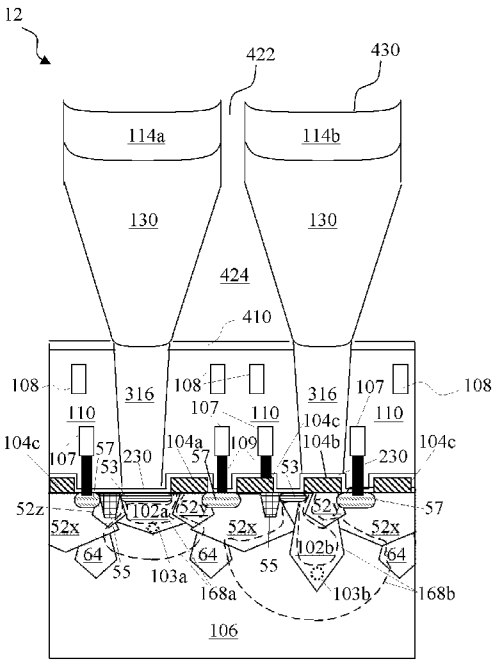


FIG. 2

(57) Abstract: A pixel array (12) of an image sensor supported by a substrate (106) of a first conductivity type, comprising: a first pixel configured to detect a blue light; and, a second pixel, the second pixel comprises: a photodetector that comprises a second region (102b) of a second conductivity type in the substrate; a first region (52y) of the first conductivity type being vertically above the second region and under a top interface of the substrate; a first drain (57) of a first transistor, the first drain abutting the first region; a first gate of the first transistor (104b), the first gate being vertically above the first and second regions; a first color filter (114b), the first color filter being a red color filter or a green color filter or a yellow color filter; and, a first light guide (130, 316), the first light guide being configured to transmit a light from the first color filter to the second region via the first gate and the first region..

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