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(54) Title: MULTI-LENS IMAGING SYSTEMS AND METHODS

(57) Abstract: Imaging systems and methods are provided. One exemplary system (300) incorporates multiple lenses that are individually configured to receive visible light from an object to be imaged, and to direct this light upon acorresponding sensor array. Luminance information is then derived from signals generated in one or more of the sensor arrays. When chrominance information is desired, an optical filter is interposed between a lens and the corresponding sensor array. The mosaic pattern contained in the optical filter is tailored to provide advantageous chrominance information. One or more such filters with different mosaic patterns may be employed. The luminance and chrominance information obtained from the sensor arrays are combined to generate an image of the object.

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