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(71) Applicant (for all designated States except US): **ELECTRO SCIENTIFIC INDUSTRIES, INC.** [US/US];
13900 NW Science Park Drive, Portland, OR 97229-5497 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **JOHANSEN, Brian** [US/US]; 5911 NW Oelrich Rd., Hillsboro, OR 97124 (US). **ALPAY, Mehmet, E.** [TR/US]; 17517 NW Reindeer Dr., Portland, OR 97229 (US).

(74) Agent: **HELMHOLDT, Thomas, D.**; Young Basile Hanlon MacFarlane & Helmholtz P.C., 3001 West Big Beaver Road, Suite 624, Troy, MI 48064-3107 (US).

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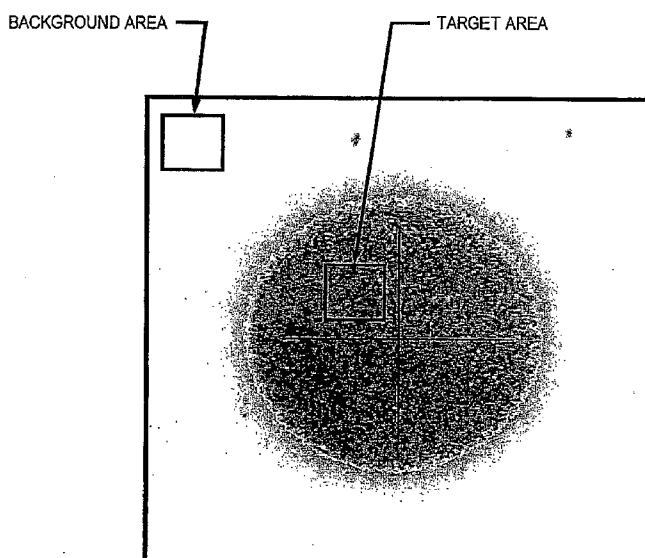
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(54) Title: IMPROVING IMAGE QUALITY VIA MULTI-WAVELENGTH LIGHT



(57) Abstract: A method and apparatus to improve image quality in images captured via monochromatic cameras using multi-wavelength lighting. A contrast optimization algorithm determines which particular wavelength among those available is most suitable to maximize contrast. The quality of the image can be further improved through active noise cancellation by determining the lighting schemes that provide maximum and minimum contrast between a target and a background. The elimination of image texture data (i.e., noise) is then accomplished through pixel-by-pixel division of the maximum by the minimum contrast image. Alternatively, images obtained using at least two wavelengths can be algebraically combined for noise reduction. The resulting composite image can be fed into any known target identification algorithm.

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