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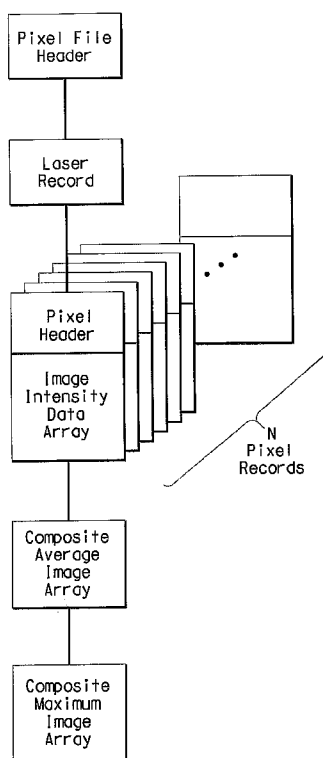
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[Continued on next page]

(54) Title: COMPUTER-IMPLEMENTED METHODS FOR ORGANIZING IMAGE DATA PRODUCED BY RESONANT MIE SCATTERING OF LIGHT FROM MICROPARTICLES AND RESULTING DATA STRUCTURES



(57) Abstract: Computer-implemented methods and programs for organizing image data representing light scattered from one or more substantially spherical microparticles and the resulting data structures are disclosed. A digital representation of an image produced on an electronic image plane by light scattered from one or more substantially spherical microparticles at each of a predetermined number (Q) of illuminating wavelengths is created. For each of the N pixels in each image an associated Image Intensity Data Array containing Q values is created. In one embodiment the resulting data structure is an inclusive collection of Pixel Records from each pixel in the image. In a second embodiment a select set of S number of Image Intensity Data Arrays is chosen. Each Image Intensity Data Array in the select set has at least one intensity value that exceeds a predetermined analog threshold. A Pointer Array containing N values is also created. The Pointer Array correlates the position on the electronic image plane of the pixel associated with each Image Intensity Data Array in the select set with the order of selection of that data array into the select set.

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**B. FIELDS SEARCHED**

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

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6,593,938 B1 (SAKATA et al ) 15 July 2003, Figures 1-24; Column 9, line 56-Column 37, line 37.	1-102

Further documents are listed in the continuation of Box C.

See patent family annex.

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"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
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