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Babayoff

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(54) **METHOD AND APPARATUS FOR COLOUR IMAGING A THREE-DIMENSIONAL STRUCTURE**

(71) Applicant: **ALIGN TECHNOLOGY, INC.**, San Jose, CA (US)

(72) Inventor: **Noam Babayoff**, Rishon Le Zion (IL)

(73) Assignee: **ALIGN TECHNOLOGY, INC.**, San Jose, CA (US)

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(58) **Field of Classification Search**
None
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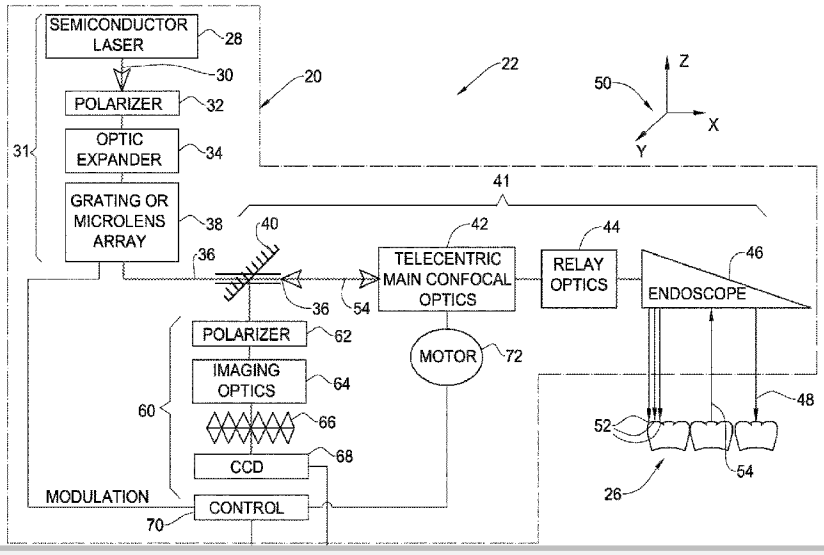
Primary Examiner — Rebecca A Volentine
(74) *Attorney, Agent, or Firm* — FisherBroyles, LLP

(57) **ABSTRACT**

A device for determining the surface topology and associated color of a structure, such as a teeth segment, includes a scanner for providing depth data for points along a two-dimensional array substantially orthogonal to the depth direction, and an image acquisition means for providing color data for each of the points of the array, while the spatial disposition of the device with respect to the structure is maintained substantially unchanged. A processor combines the color data and depth data for each point in the array, thereby providing a three-dimensional color virtual model of the surface of the structure. A corresponding method for determining the surface topology and associate color of a structure is also provided.

34 Claims, 11 Drawing Sheets



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