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[54] **SYSTEM AND METHOD OF DETERMINING SURFACE CHARACTERISTICS USING INFRARED IMAGING**

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[52] U.S. Cl. 250/330; 374/44

[58] Field of Search 374/44; 250/330

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[57] **ABSTRACT**

There is disclosed a system and method for generating characteristics of a surface using an analysis of the infrared image of the surface. A heat balance equation is generated and a technique is presented for solving the equation to generate the absorptivity and conductivity indices of the surface. These indices are matched against a data base of indices of various surfaces to achieve material identification. An embodiment is disclosed in which the indices are used to predict surface appearance in the infrared image for different points in time.

24 Claims, 1 Drawing Sheet

