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(54) **METHODS, SYSTEMS, AND DEVICES FOR EVALUATION OF THERMAL TREATMENT**

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(52) **U.S. Cl.** **324/204; 374/176**

(58) **Field of Classification Search** **324/204; 374/176**

See application file for complete search history.

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(57) **ABSTRACT**

Methods, Systems, and Devices for Evaluation of Thermal Treatment. A magnetically detectable particle and related methods, systems, and devices are provided for generating a temperature measurement for a batch or a continuous stream of material. The particle can include a first and second magnet each comprising a positive and negative pole. The particle can also include an adhesive having a release temperature and operable to attach one or both of the positive and negative poles of the first magnet proximate to the same polarity pole of the second magnet or to attach one of the positive and negative poles of the first magnet between the poles of the second magnet below the release temperature such that a first magnetic field is generated by the first and second magnet. The adhesive can also be operable to release the first and second magnets from one another above the release temperature.

88 Claims, 90 Drawing Sheets

