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# United States Patent [19]

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[54] **HEATED STAGE FOR A SCANNING PROBE MICROSCOPE**

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### Related U.S. Application Data

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[51] Int. Cl.<sup>6</sup> ..... **H01J 37/20**

[52] U.S. Cl. .... **250/443.1**

[58] Field of Search ..... 250/443.1

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### [57] ABSTRACT

A heater for use in heating a sample stage of a microscope such as a scanning probe microscope is bonded to a sample stage which sits on a tube of a ceramic thermal insulator which is, in turn, mounted within or part of a tube of the same material. This re-entrant design provides an increased thermal path over straight line distances between the heater and the support structure for the sample stage and thus provides excellent thermal insulation, while also maximizing the thermal stability of the system.

**9 Claims, 5 Drawing Sheets**

