

United States Patent [19]

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Kessler et al.

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[54] **CONTROLLED-IMMERSION INSPECTION**

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[52] U.S. Cl. **73/620**

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[56] **References Cited**

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[57] **ABSTRACT**

A controlled-immersion inspection mechanism gradually immerses a planar pattern of integrated circuits or other articles into a tank filled with water to a given level; across the tank there are two spaced parallel guide tracks along which two carriages, connected by a platform, move from an entry position above the water to an inspection position. In the inspection position the platform supports the articles, in an orderly array, for scanning inspection by a focussed energy beam, preferably an ultrasonic beam. A platform drive drives the platform between its entry and inspection positions. A mesh or other removable cover that permits water to flow but stabilizes article positions may cover the articles during immersion; the mesh is usually removed before scanning.

20 Claims, 6 Drawing Sheets

