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International Bureau

INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification 6 : G01N 21/01

A2

(11) International Publication Number: **WO 98/53301**

(43) International Publication Date: 26 November 1998 (26.11.98)

(21) International Application Number: PCT/US98/10504

(22) International Filing Date: 22 May 1998 (22.05.98)

(30) Priority Data:
60/047,481 23 May 1997 (23.05.97) US

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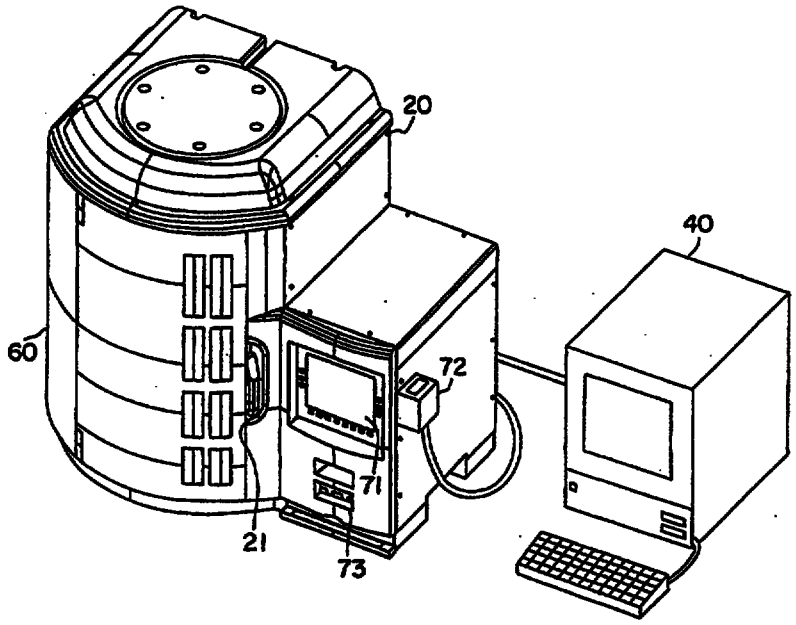
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(81) Designated States: AU, BR, CA, JP, MX, SG, European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE).

Published
Without international search report and to be republished upon receipt of that report.

(54) Title: AUTOMATED MICROBIOLOGICAL TESTING APPARATUS AND METHODS THEREFOR



(57) Abstract

A diagnostic microbiological testing system and method for microorganism identification (ID) and antimicrobial susceptibility determinations (AST). The system includes multiple–well test panels capable of performing ID and AST testing on the same test panel. Each test panel is inoculated with reagents, broth–suspended organisms, and placed into the instrument system. The instrument system includes a rotating carousel for incubation and indexing, multiple light sources each emitting different wavelength light, precision calorimetric and fluorometric detection, barcode test panel tracking and a control processor for making determinations based on measured test data. One light source includes a plurality of LEDs arranged in a linear array. Each of the LEDs' junction currents are controllable to produce a predetermined illumination profile.