

Title (en)

METHOD AND SYSTEM FOR NOISE CONTROL IN SEMICONDUCTOR SPECTROSCOPY SYSTEM

Title (de)

VERFAHREN UND SYSTEM ZUR GERÄUSCHESTEUERUNG IN SYSTEM ZUR HALBLEITERSPEKTROSKOPIE

Title (fr)

PROCEDE ET SYSTEME DE CONTROLE DE BRUIT DANS UN SYSTEME DE SPECTROSCOPIE SEMICONDUCTEUR

Publication

EP 1794855 A1 20070613 (EN)

Application

EP 05798659 A 20050920

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Abstract (en)

[origin: WO2006039154A1] An optical power control system for a semiconductor source spectroscopy system controls power fluctuations in the tunable signal (210) from the spectroscopy system (100) and thus improves the noise performance off the system. This general solution has advantages relative to other systems that simply detect reference power levels during the scan and then correct the detected signal after interaction with the sample by reducing the requirements for coordinating the operation of the sample detectors and power or reference detectors. The spectroscopy system (100) comprises a semiconductor source (200, 610, 622) and a tunable filter (612). The combination of the semiconductor source (200, 610, 622) and tunable signal (210) illuminate a sample (10) with a tunable signal (210), being tunable over a scan band (510). The power control system comprises an amplitude detector system (320, 322) for detecting the power of the tunable optical signal (210) and power control system (410, 411, 318) for regulating the amplitude of the tunable optical signal (210) in response to its detected power.

IPC 8 full level

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Citation (search report)

See references of WO 2006039154A1

Citation (examination)

- US 2004064022 A1 20040401 - KORN JEFFREY A [US]
- VARGHESE P L ET AL: "Tunable diode laser measurements of spectral parameters of HCN at room temperature", JOURNAL OF QUANTITATIVE SPECTROSCOPY AND RADIATIVE TRANSFER, ELSEVIER SCIENCE, OXFORD, GB, vol. 31, no. 6, 1 June 1984 (1984-06-01), pages 545 - 559, XP024416699, ISSN: 0022-4073, [retrieved on 19840601], DOI: DOI:10.1016/0022-4073(84)90060-8

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