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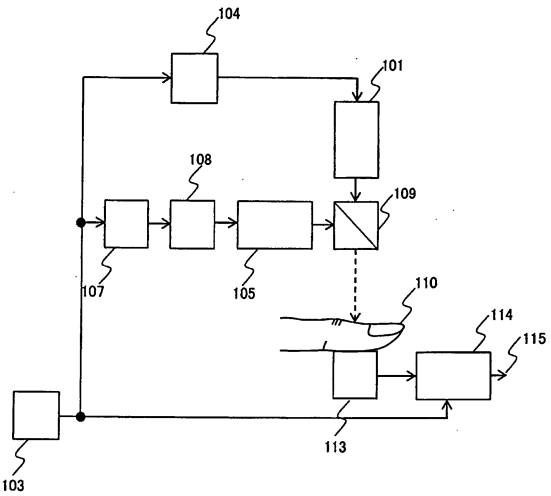
(54) Component concentration measuring device and method of controlling component concentration measuring device

(57) An object of the present invention is to provide a noninvasive constituent concentration measuring apparatus and constituent concentration measuring apparatus controlling method, in which accurate measurement can be performed by superimposing two photoacoustic signals having the same frequency and reverse phases to nullify the effect from the other constituent occupying large part of the object to be measured. The constituent concentration measuring apparatus according to the invention includes light generating means for generating two light beams having different wavelengths, modulation means for electrically intensity-modulating each of the two light beams having different wavelengths using signals having the same frequency and reverse phases, light outgoing means for outputting the two intensity-modulated light beams having different wavelengths toward a test subject, and acoustic wave detection means for detecting an acoustic wave generated in the test subject by the outputted light.

Fig. 1



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EUROPEAN SEARCH REPORT

Application Number
EP 11 00 2586

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The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
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CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
Y : particularly relevant if combined with another document of the same category
A : technological background
O : non-written disclosure
P : intermediate document

T : theory or principle underlying the invention
E : earlier patent document, but published on, or after the filing date
D : document cited in the application
L : document cited for other reasons

& : member of the same patent family, corresponding document

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ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO. EP 11 00 2586

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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82

专利名称(译)	组分浓度测量装置和控制组分浓度测量装置的方法		
公开(公告)号	EP2336747A3	公开(公告)日	2011-07-06
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[标]申请(专利权)人(译)	日本电信电话株式会社		
申请(专利权)人(译)	日本电报电话公司		
当前申请(专利权)人(译)	日本电报电话公司		
[标]发明人	THE DESIGNATION OF THE INVENTOR HAS NOT YET BEEN FILED		
发明人	THE DESIGNATION OF THE INVENTOR HAS NOT YET BEEN FILED		
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摘要(译)

本发明的一个目的是提供一种无创成分浓度测量装置和成分浓度测量装置控制方法，其中可以通过叠加具有相同频率和反相的两个光声信号来执行精确测量，以抵消来自其他成分的影响。占据待测物体的大部分。根据本发明的成分浓度测量装置包括用于产生具有不同波长的两个光束的光产生装置，用于使用具有相同频率和反相的信号对具有不同波长的两个光束中的每一个进行电强度调制的调制装置，光输出用于向测试对象输出具有不同波长的两个强度调制光束的装置，以及用于通过输出光检测在测试对象中产生的声波的声波检测装置。

Fig. 1