

(12) 按照专利合作条约所公布的国际申请

(19) 世界知识产权组织
国际局



(10) 国际公布号
WO 2020/119825 A1

(43) 国际公布日
2020年6月18日 (18.06.2020)

(51) 国际专利分类号:
A61B 5/1455 (2006.01) *A61B 5/00* (2006.01)
A61B 5/145 (2006.01)

(21) 国际申请号: PCT/CN2019/125781

(22) 国际申请日: 2019年12月16日 (16.12.2019)

(25) 申请语言: 中文

(26) 公布语言: 中文

(30) 优先权:
201811539082.1 2018年12月14日 (14.12.2018) CN

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(81) 指定国(除另有指明, 要求每一种可提供的国家保护): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB,

(54) Title: NONINVASIVE DETECTION METHOD, APPARATUS AND SYSTEM FOR TISSUE CONSTITUENT, AND WEARABLE DEVICE

(54) 发明名称: 一种组织成分无创检测方法、装置、系统及可穿戴设备

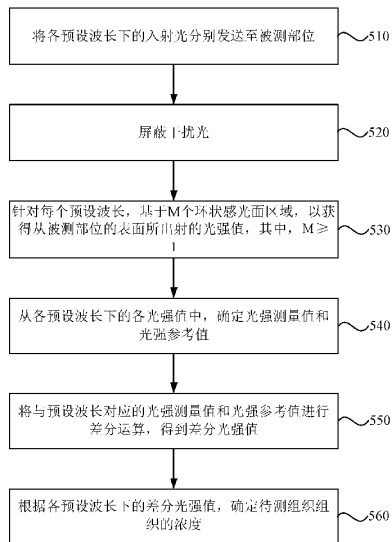


图 9

510 Respectively transmit the light at preset wavelengths to a detected position
520 Shield the disturbance light
530 Obtain, on the basis of M annular photosensitive surface areas, light intensity values emitted from the surface of the detected position for each preset wavelength, wherein M ≥ 1
540 Determine the light intensity measurement value and the light intensity reference value from the light intensity values at the preset wavelengths
550 Perform differential computation on the light intensity measurement value and the light intensity reference value corresponding to the preset wavelength to obtain a differential light intensity value
560 Determine, according to differential light intensity values at the preset wavelengths, the concentration of tissue constituents to be detected

(57) Abstract: Disclosed are a noninvasive detection method, apparatus and system for a tissue constituent, and a wearable device. The method comprises: respectively transmitting the light at preset wavelengths to a detected position; obtaining, on the basis of photosensitive surfaces, light intensity values emitted from the surface of the detected position for each preset wavelength, the photosensitive surfaces being distant from the center of the incident light at a corresponding preset distance; and determining, according to the light intensity values at the preset wavelengths, the concentration of tissue constituents to be detected. Since embodiments of the

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GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW。

- (84) 指定国 (除另有指明, 要求每一种可提供的地区保护): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, ST, SZ, TZ, UG, ZM, ZW), 欧亚 (AM, AZ, BY, KG, KZ, RU, TJ, TM), 欧洲 (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG)。

本国际公布:

- 包括国际检索报告 (条约第21条(3))。

present invention can achieve reception of light intensity values in a wide range, the light reception efficiency is improved, and thus the precision of detecting said tissue constituents is improved. Meanwhile, since differential computation can be performed on different light intensity values, common-mode interference information can be eliminated. Therefore, the precision of detecting said tissue constituents is also improved.

(57) 摘要: 本发明公开了一种组织成分无创检测方法、装置、系统及可穿戴设备, 其中, 该方法包括: 将各预设波长下的入射光分别发射至被测部位; 针对每个预设波长, 基于各感光面以获得从被测部位的表面所出射的光强值, 每个感光面距入射光中心以对应的预设距离; 根据各预设波长下的各光强值, 确定待测组织成分的浓度。本发明实施例由于可实现大范围的光强值接收, 因此, 提高了光的接收效率, 进而提高了对待测组织成分的检测精度。同时, 由于不同光强值可进行差分运算, 能够消除共模干扰信息, 因此, 也提高了对待测组织成分的检测精度。