

Title (en)

METHOD FOR OPERATING A MICROSPECTROMETER AND MICROSPECTROMETER

Title (de)

VERFAHREN ZUM BETREIBEN EINES MIKROspektrometers UND MIKROspektrometer

Title (fr)

PROCÉDÉ DE FONCTIONNEMENT D'UN MICROSPECTROMÈTRE ET MICROSPECTROMÈTRE

Publication

EP 3532813 A1 20190904 (DE)

Application

EP 17780698 A 20171002

Priority

- DE 102016221383 A 20161031
- EP 2017074981 W 20171002

Abstract (en)

[origin: WO2018077573A1] The invention relates to a method for operating a microspectrometer (102), wherein the method involves the following steps: irradiating a measurement object (130) to be measured with a first spectral intensity distribution (120) with first pulse characteristics (118) and with a second spectral intensity distribution (124) with second pulse characteristics (122) using a modulatable emitter device (106) of the microspectrometer (102); allowing a first wavelength range (134) associated with the first spectral intensity distribution (120) and a second wavelength range (136) associated with the second spectral intensity distribution (124) from a spectral reflection intensity distribution (132) re-emitted from the measurement object (130) to pass through using an adjustable filter device (108) of the microspectrometer (102); mapping a radiation intensity of the first wavelength range (134) and the second wavelength range (136) in a detector signal (138) using a detector device (110) of the microspectrometer (102); and demodulating the detector signal (138) using the first pulse characteristics (118) and the second pulse characteristics (122), in order to obtain a first intensity value (140) associated with the first wavelength range (134) and a second intensity value (142) associated with the second wavelength range (136).

IPC 8 full level

G01J 3/26 (2006.01); **G01J 3/02** (2006.01); **G01J 3/427** (2006.01); **G01J 3/433** (2006.01)

CPC (source: EP)

G01J 3/0256 (2013.01); **G01J 3/027** (2013.01); **G01J 3/0272** (2013.01); **G01J 3/10** (2013.01); **G01J 3/26** (2013.01); **G01J 3/2803** (2013.01);
G01J 3/32 (2013.01); **G01J 3/427** (2013.01); **G01J 3/433** (2013.01); **G01J 2003/102** (2013.01); **G01J 2003/1234** (2013.01);
G01J 2003/1247 (2013.01); **G01J 2003/425** (2013.01)

Citation (search report)

See references of WO 2018077573A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

WO 2018077573 A1 20180503; CN 109891204 A 20190614; CN 109891204 B 20210402; DE 102016221383 A1 20180503;
EP 3532813 A1 20190904

DOCDB simple family (application)

EP 2017074981 W 20171002; CN 201780067294 A 20171002; DE 102016221383 A 20161031; EP 17780698 A 20171002