

Title (en)

OFF-AXIS TRANSMISSION DIGITAL HOLOGRAPHIC IMAGING METHOD, MICROSCOPE AND ASSEMBLY

Title (de)

DIGITALES HOLOGRAPHISCHES ABBILDUNGSVERFAHREN MIT AUSSERAXIALER ÜBERTRAGUNG, MIKROSKOP UND ANORDNUNG

Title (fr)

PROCÉDÉ, MICROSCOPE ET ENSEMBLE D'IMAGERIE HOLOGRAPHIQUE NUMÉRIQUE HORS AXE EN TRANSMISSION

Publication

EP 3850439 A1 20210721 (FR)

Application

EP 19774071 A 20190913

Priority

- FR 1858232 A 20180913
- EP 2019074582 W 20190913

Abstract (en)

[origin: WO2020053433A1] The invention relates to a method (800) for off-axis transmission digital holographic imaging of an object, comprising the following steps: acquisition (802) of a holographic image of the object (102), comprising the steps of illuminating (804) the object with at least three non-coplanar illumination waves (OI), focussing each object wave from the object towards a digital sensor (126) using a focussing means (122), and detecting (806) an interference figure (126) between the object waves (OI) and a reference wave (OR); and digital reconstruction (808) of a holographic image from the at least one interference figure. The invention also relates to a holographic imaging microscope and assembly implementing such a method.

IPC 8 full level

G03H 1/08 (2006.01); **G03H 1/04** (2006.01); **G03H 1/26** (2006.01)

CPC (source: EP)

G03H 1/0443 (2013.01); **G03H 1/0465** (2013.01); **G03H 1/0866** (2013.01); **G03H 1/265** (2013.01); **G03H 2001/005** (2013.01); **G03H 2001/0452** (2013.01); **G03H 2001/0456** (2013.01); **G03H 2001/0471** (2013.01); **G03H 2001/2655** (2013.01); **G03H 2222/34** (2013.01); **G03H 2222/44** (2013.01); **G03H 2223/23** (2013.01); **G03H 2225/24** (2013.01)

Citation (search report)

See references of WO 2020053433A1

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 2020053433 A1 20200319; EP 3850439 A1 20210721; FR 3086071 A1 20200320; FR 3086071 B1 20230303

DOCDB simple family (application)

EP 2019074582 W 20190913; EP 19774071 A 20190913; FR 1858232 A 20180913