

Title (en)  
WAVE FIELD MICROSCOPE, METHOD FOR A WAVE FIELD MICROSCOPE, INCLUDING FOR DNA SEQUENCING, AND CALIBRATION  
METHOD FOR WAVE FIELD MICROSCOPY

Title (de)  
WELLENFELD-MIKROSKOP, VERFAHREN FÜR EIN WELLENFELDMIKROSKOP EINSCHLIESSLICH DNA-SEQUENZIERUNG UND  
KALIBRIERUNGSVERFAHREN FÜR DIE WELLENFELDMIKROSKOPIE

Title (fr)  
MICROSCOPE A CHAMP D'ONDES, PROCEDEE DE MICROSCOPIE A CHAMP D'ONDES SERVANT EGALEMENT AU SEQUENCAGE D'ADN  
ET PROCEDE D'ETALONNAGE UTILISE EN MICROSCOPIE A CHAMP D'ONDES

Publication  
**EP 0996854 A1 20000503 (DE)**

Application  
**EP 98967010 A 19980709**

Priority  
• DE 9801908 W 19980709  
• DE 19729512 A 19970710  
• EP 98123687 A 19981211

Abstract (en)  
[origin: DE19830596A1] The wave field microscope has an illumination or excitation system, with a lens at the light source with a further lens or reflector. The illumination or excitation system has at least one real or virtual lamp for coherent light beams in two or all three dimensions, and at least one reflector or beam divider to catch part-beams or a further lamp for coherent light beams. At least one lens gives light wave trains which are aligned anti-parallel to a light or are in a variable and adjustable angle to the light wave trains at the reflector or other light, so that the light wave trains from one light interfere with the reflector or other light to a standing wave field with even wave fronts. The detection system has at least one lens for epi-fluorescent detection and/or at least one lens for screen point detection, preferably with a higher aperture number. Its optical axis is at right angles to the wave fronts of one of the interfering wave fields, and can also be identical to the lens of the excitation system. The detection lens for epi-fluorescent detection is a two-dimension detector such as a camera. The lens for screen point detection has a fixed confocal detection ring diaphragm and/or a diaphragm opening and/or at least one fixed detection slit in front of it, and a point detector and especially a photo multiplier, a photo diode or a diode array after it.

IPC 1-7  
**G01N 21/64**; **G02B 21/06**; **C12Q 1/68**

IPC 8 full level  
**C12Q 1/68** (2006.01); **G01B 9/04** (2006.01); **G02B 21/06** (2006.01)

CPC (source: EP)  
**C12Q 1/6825** (2013.01); **G01B 9/04** (2013.01); **G02B 21/06** (2013.01)

Citation (search report)  
See references of WO 9902974A1

Cited by  
US7772569B2; US7880149B2; US8217992B2

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DE

DOCDB simple family (publication)  
**DE 19830596 A1 19990114**; **DE 19830596 B4 20080821**; AU 9251898 A 19990208; EP 0996854 A1 20000503; EP 1008845 A1 20000614; WO 9902974 A1 19990121; WO 9902974 A9 19990422

DOCDB simple family (application)  
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