

Title (en)

CALIBRATION-FREE PHASE SHIFTING PROCEDURE FOR SELF-INTERFERENCE HOLOGRAPHY

Title (de)

KALIBRIERFREIES PHASENVERSCHIEBUNGSVERFAHREN FÜR SELBSTINTERFERENZHOLOGRAFIE

Title (fr)

PROCÉDURE DE DÉPHASAGE SANS ÉTALONNAGE POUR HOLOGRAPHIE À AUTO-INTERFÉRENCE

Publication

EP 3994529 A4 20240228 (EN)

Application

EP 20834451 A 20200702

Priority

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- US 2020040683 W 20200702

Abstract (en)

[origin: WO2021003380A1] An apparatus and method are introduced to produce a hologram of an object from electromagnetic radiation, such as incoherent light, received from the object. The electromagnetic radiation is received by a receiving assembly and transformed into a plurality of co-linear co-propagating beams with different focal distances. The interference of the plurality of beams is enabled by projecting components of each beam along a common polarization direction. The interference patterns thus formed are recorded and then processed to form the hologram of the object.

IPC 8 full level

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CPC (source: EP)

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Citation (search report)

- [XAI] TATSUKI TAHARA ET AL: "Single-shot phase-shifting incoherent digital holography", JOURNAL OF OPTICS, INSTITUTE OF PHYSICS PUBLISHING, BRISTOL GB, vol. 19, no. 6, 22 May 2017 (2017-05-22), pages 65705, XP020316965, ISSN: 2040-8986, [retrieved on 20170522], DOI: 10.1088/2040-8986/AA6E82
- [XAI] DONG LIANG ET AL: "Single-shot Fresnel incoherent digital holography based on geometric phase lens", ARXIV.ORG, CORNELL UNIVERSITY LIBRARY, 201 OLIN LIBRARY CORNELL UNIVERSITY ITHACA, NY 14853, 16 November 2018 (2018-11-16), XP081429481
- See also references of WO 2021003380A1

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