

(12) **United States Patent**
Ryzhikov et al.

(10) **Patent No.:** **US 9,411,244 B2**
(45) **Date of Patent:** **Aug. 9, 2016**

(54) **OPTICAL SYSTEM, INSPECTION SYSTEM AND MANUFACTURING METHOD**

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 157 days.

(21) Appl. No.: **14/107,819**

(22) Filed: **Dec. 16, 2013**

(65) **Prior Publication Data**
US 2014/0098356 A1 Apr. 10, 2014

Related U.S. Application Data

(63) Continuation of application No. 13/105,364, filed on May 11, 2011, now Pat. No. 8,692,977.

(60) Provisional application No. 61/334,286, filed on May 13, 2010.

(51) **Int. Cl.**
G03B 27/54 (2006.01)
G03B 27/42 (2006.01)
(Continued)

(52) **U.S. Cl.**
CPC **G03F 7/7015** (2013.01); **G01N 21/94** (2013.01); **G02B 13/04** (2013.01); **G02B 13/18** (2013.01); **G03F 1/84** (2013.01); **G03F 7/7085** (2013.01); **G03F 7/70908** (2013.01)

(58) **Field of Classification Search**
CPC G03F 7/70908; G03F 7/7085; G03F 7/015
USPC 355/30, 52, 53, 55, 67; 356/302; 359/365, 684, 717
See application file for complete search history.

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(57) **ABSTRACT**

Systems and methods for inspection are provided utilizing a wide angle optical system. The optical system includes a wide angle input lens group and an output lens group. The wide angle input lens group is configured to receive wide-angle radiation, e.g., having an angular spread of 60 degrees or more, from an object surface, and produce imageable radiation. The wide angle input lens group is arranged such that no intermediate focused image is formed within or after the wide angle input lens group. The output lens group is configured to receive the imageable radiation from the wide angle input lens group and focus the imageable radiation onto an image plane to image at least part of the object surface. A detector receives the image of the at least part of the object surface and, based on the received image, detects, for example, contamination on the object surface.

20 Claims, 3 Drawing Sheets

