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(71) Applicant (for all designated States except US): **NIKON CORPORATION** [JP/JP]; 2-3 Marunouchi, 3-Chome, Chiyoda-ku, Tokyo, 100-8331 (JP).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **NOVAK, W., Thomas** [US/US]; 1205 Lakeview Drive, Hillsborough, CA 94010 (US).

(74) Agent: **NISHIMURA, Keiichi**; Beyer Weaver & Thomas, LLP, P.O. Box 778, Berkeley, CA 94704-0778 (US).

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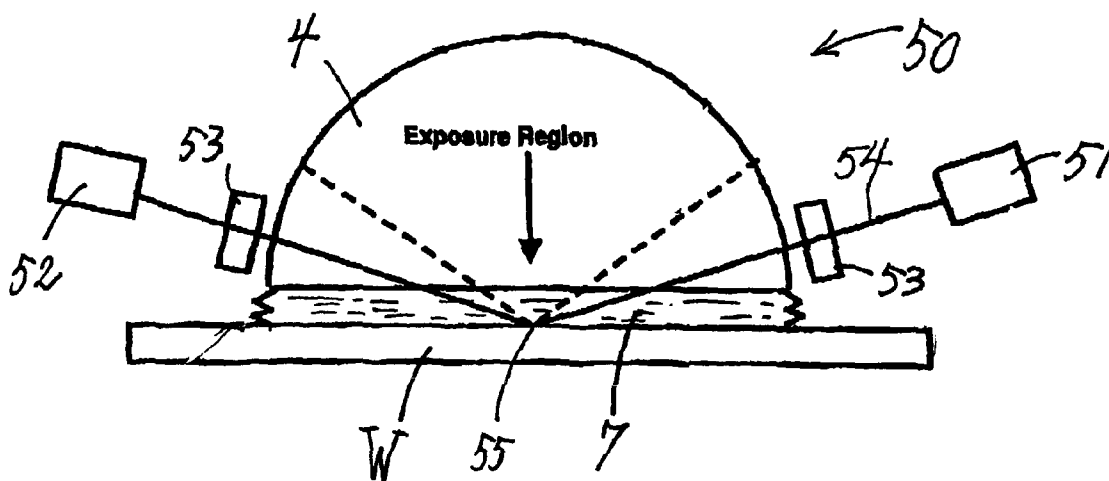
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(54) Title: OPTICAL ARRANGEMENT OF AUTOFOCUS ELEMENTS FOR USE WITH IMMERSION LITHOGRAPHY



(57) Abstract: An autofocus unit is provided to an immersion lithography apparatus for having a fluid over a target surface of a workpiece and an image pattern projected on this target surface through the fluid. The autofocus unit has an optical element such as a projection lens disposed opposite and above the target surface. An autofocus light source is arranged to project a light beam obliquely at a specified angle such that this light beam passes through the fluid and is reflected by the target surface of the workpiece at a specified reflection position which is below the optical element. A receiver receives and analyzes the reflected light. Correction lenses may be disposed on the optical path of the light beam for correcting propagation of the light beam.

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