

ABSTRACT

A position control system for a substrate support of a lithographic apparatus includes a position measurement system configured to determine a position of a sensor or sensor target on the substrate support, a controller configured to provide a control signal based on a desired position of a target portion of the substrate and the determined position, and one or more actuators configured to act on the substrate support. The position control system includes a stiffness compensation model of the substrate support, the stiffness compensation model including a relation between a difference in a change in position of the target portion and a change in position of the sensor or sensor target as a result of a force exerted on the substrate support. The position control system is configured to substantially correct at least during projection of a patterned radiation beam on the target portion, the position of the target portion using the stiffness compensation model.

Fig. 1