

LITHOGRAPHIC APPARATUS, PROJECTION ASSEMBLY AND ACTIVE DAMPING

ABSTRACT

A lithographic apparatus comprises an illumination system configured to condition a radiation beam and a support constructed to support a patterning device. The lithographic apparatus further comprises a substrate table constructed to hold a substrate; and a projection system configured to project the patterned beam onto a target portion of the substrate. An active damping system is provided to dampen a vibration of at least part of the projection system. The active damping system comprises a combination of a sensor to measure a position quantity of the projection system and an actuator to exert a force on the projection system in dependency of a signal provided by the sensor. The active damping system is connected to a damping mass, the damping mass being connected to the projection system.

Figure 1