

LITHOGRAPHIC APPARATUS AND HUMIDITY MEASUREMENT SYSTEM

A humidity measurement system for use in, for example, a lithographic apparatus. The humidity measurement system includes a tunable laser diode configured to emit a measurement radiation beam having a wavelength in a wavelength range. The wavelength range includes a first wavelength associated with an absorption peak of water molecules. A signal processing unit is connected to a radiation detector. The signal processing unit is configured to measure an intensity of the measurement radiation beam of the tunable laser diode subjected to absorption. The signal processing unit is also connected to the tunable laser diode for obtaining wavelength information. The signal processing unit is arranged to detect an extreme value in a measured intensity as function of the wavelength and to calculate a humidity value from the detected extreme value.

[Figure 1]