METHOD AND SYSTEM FOR PREVENTING DEPOSITION ON AN OPTICAL COMPONENT IN A SPECTROSCOPIC SENSOR

Abstract

Provided are novel methods of preventing deposition on an optical component in an absorption spectroscopy measurement cell. The methods involve performing an absorption spectroscopy measurement of a sample gas introduced into the cell, and introducing a flow of purge gas from a purge gas inlet pipe across a critical surface of the optical element at a velocity effective to prevent deposition on the critical surface. The gas inlet is disposed adjacent said critical surface. Also provided are devices for practicing the inventive method, measurement cells useful in absorption spectroscopy measurements, apparatuses for performing an absorption spectroscopy measurement and semiconductor processing apparatuses. The invention allows for the performance of accurate spectroscopic measurements. Because deposits are prevented from forming on the surface of an optical element, interference therefrom can effectively be avoided.

Figure 3A