ALD SYSTEMS AND METHODS

Abstract

A gas deposition system *(1000)* configured as a dual-chamber "tower" includes a frame *(1140)* for supporting two reaction chamber assemblies *(3000)*, one vertically above the other. Each chamber assembly *(3000)* includes an outer wall assembly surrounding a hollow chamber *(3070)* sized to receive a single generation 4.5 (GEN 4.5) glass plate substrate through a load port. The substrate is disposed horizontally inside the hollow chamber *(3070)* and the chamber assembly *(3000)* includes removable and cleanable triangular shaped input *(3150)* and output *(3250)* plenums disposed external to the hollow chamber *(3070)* and configured to produce substantially horizontally directed laminar gas flow over a top surface of the substrate. Each chamber includes a cleanable and removable chamber liner assembly *(6000)* disposed inside the hollow chamber (3070) to contain precursor gases therein thereby preventing contamination of chamber outer walls *(3010, 3020, 3030, 3040).*

FIGURE 1