

CLAIMS

1. A processing chamber comprising:
 - a substrate support configured to rotate a substrate during processing; and
 - a showerhead assembly disposed above the substrate support, wherein the showerhead assembly comprises:
 - a reflector plate having a first gas injection port and a second gas injection port disposed therethrough;
 - a gas injection insert disposed in the reflector plate and having a plurality of apertures, wherein the gas injection insert comprises:
 - at least two baffle plates radially disposed in the gas injection insert about a center of the reflector plate, each baffle plate having a plurality of apertures, wherein a first plenum is formed between a first portion of the baffle plate and the reflector plate, wherein a second plenum is formed between a second portion of the baffle plate and the reflector plate, the first plenum separated from the second plenum by a wall of the reflector plate, and wherein the plurality of apertures of the gas injection insert and the baffle plate are not axially aligned; and
 - a third plenum formed between the baffle plate and the gas injection insert,
- wherein the third plenum is in fluid communication with the first and second plenums through the apertures formed through the baffle plate, wherein the plurality of apertures of the gas injection insert are aligned in one or more columns, and wherein the plurality of apertures of the gas injection insert increase in diameter from a first end of the gas injection insert to a second end of the gas injection insert.