

ABSTRACT

PLASMA RESISTANT COATING OF POROUS BODY BY ATOMIC LAYER DEPOSITION

Described herein are articles, systems and methods where a plasma resistant coating is deposited onto a surface of a porous chamber component and onto pore walls within the porous chamber component using an atomic layer deposition (ALD) process. The porous chamber component may include a porous body comprising a plurality of pores within the porous body, the plurality of pores each comprising pore walls. The porous body is permeable to a gas. The plasma resistant coating may comprise a solid solution of $\text{Y}_2\text{O}_3\text{-ZrO}_2$ and may have a thickness of about 5nm to about 3 μm , and may protect the pore walls from erosion. The porous body with the plasma resistant coating remains permeable to the gas.

(Figure 3A)