

ALD Reactor for Coating Porous Substrates

Technology available for licensing: The invention is an improved ALD reactor for coating substrates, particularly porous substrates having an aspect ratio, defined as pore length divided by pore diameter, of greater than about 10-1000, and a high surface area by virtue of the porosity. The system includes a top showerhead plate, a substrate and a bottom showerhead plate. The substrate includes a porous microchannel plate and a substrate holder is positioned in the system to insure flow-through of the gas precursor.

Benefits:

- These features serve to improve the uniformity of the precursor flux, resulting in improved thickness and compositional uniformity of the deposited layers on the porous substrate.
- In another embodiment plural porous substrates can be disposed between the dual showerheads to enable deposition of material on multiple substrates.

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