ABSTRACT

Disclosed is a showerhead, comprising: a faceplate, including a first surface, a second surface, and a plurality of through holes penetrating the first surface and the second surface; an inflation cavity, at least partially defined by the first surface of the faceplate; wherein the second surface is opposite to a substrate support member, and the first surface protrudes in a direction away from the substrate support member, such that the length of the plurality of through holes reaches the maximum at the center of the faceplate and the minimum at the edge of the faceplate. In the showerhead of the present invention, the gas flow rate gradually decreases from the center to the edge of the faceplate on the first surface, while the length of the through holes gradually decreases from the center to the edge of the faceplate. Accordingly, the resistance applied to the gas by the through holes gradually decreases from the center to the edge of the faceplate, which improves the uniformity of gas flow rate discharged from the second surface of the faceplate and regulates the uniformity of film thickness deposited on the surface of a substrate.