

Provided is a new type of vaporization core, belonging to the field of vaporization applications. The new vaporization core comprises a vaporization core substrate and a heating element on the vaporization core substrate; the vaporization core substrate is made of dense material; liquid-guiding holes are distributed on the vaporization core substrate, and the diameter of the liquid-guiding holes is 1–250 microns, the wall spacing of two adjacent liquid-guiding holes is less than 500 microns, and the porosity of the dense ceramic is less than 30 %. In the new type of vaporization core, a controllable liquid flow passageway is constructed on the substrate; during the heating and vaporization process, it is possible not only to approximate in-situ vaporization, but also, by means of the quantization of the liquid flow passageway, the fluid flow is accurately controlled, thus the effect of quantum vaporization is achieved, controlling to the maximum extent the nucleation and particle growth process of vaporized particles and achieving the purpose of uniform vaporization. At the same time, the ceramic powder and relatively toxic and harmful substances caused by the porous ceramic process are prevented from entering the vaporized aerosol, thereby providing safer quantitative vaporization.