

ABSTRACT OF THE DISCLOSURE

NOZZLE SOURCE FOR THERMAL EVAPORATION PROCESS

The present invention relates to a nozzle source for a thermal evaporation process, wherein when a material in the source is deposited on a substrate during the thermal evaporation process, the evaporated material can be uniformly deposited on the substrate and heat can be uniformly applied to the material within a crucible of the source. The nozzle source of the present invention comprises an insertion portion 10 in which nozzles 11 for determining evaporation directions of a chemical material are conically arranged; a crucible 20 that is in the form of a cylinder with an opened upper end and formed with a catching step 21 by which the insertion portion 10 can be caught at the upper end of the crucible; a filament 30 disposed around the crucible 20 to heat the crucible 20; a reflecting plate 40 disposed around the filament 30 to minimize heat loss; and a heat conducting portion 50 inserted into the crucible 20 to transfer heat from the filament 30 to the interior of the crucible 20. According to the nozzle source of the present invention, the uniformity of the thickness of a material layer deposited on a substrate, particularly, upon manufacture of a large substrate can be improved, the deposition rate of a material can be prevented from being rapidly decreased with time, and the use rate of the material can be increased.