Aerosol Deposition Method에 의한 수동소자와 능동소자의 동시 직접화를 위한 다양한 유전체 후막

남송민[a]
광운대학교

Various Dielectric Thick Films for Co-Integration of Passive and Active Devices by Aerosol Deposition Method

Song-Min NAM[a]
Kwangwoon Univ.

Abstract : In recent, the concept of system-on-package (SOP) for highly integrated multifunctional systems has been paid attention to for the miniaturization and high frequency of electronic devices. In order to realize SOP, co-integration of passive devices, such as capacitors, resistors and inductors, and active devices should be achieved. If ceramic thick films can be grown at room temperature, we expect to be able to overcome many problems in conventional fabrication processes. So, we focused on the aerosol deposition method (ADM) as room temperature fabrication technology. ADM is a novel ceramic coating method based on the Room Temperature Impact Consolidation (RTIC) phenomena. This method has a wide range potential for fabrication of co-integration of passive and active devices. In this paper, I will present the future potential of ADM introducing various ceramic dielectric thick films for the integration of electronic ceramics.

Key Words : Dielectrics, Thick film, Aerosol Deposition Method, Co-integration