

CaO-MgO-SiO₂ 계 LTCC glass에 대한 특성 연구

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삼성전기

Study on properties of CaO-MgO-SiO₂ system glass-ceramic for LTCC

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Abstract : Low-temperature co-fired ceramics (LTCC) have turned out to be very promising technology in accordance with the rapid developments in semiconductor technology. The demands for compact electrical assemblies, smaller power loss as well as high signal density can be fulfilled by LTCC. And for the multi-layered ceramic devices with embedded passive components such as high dielectric constant decoupling capacitor, LTCC materials require the several conditions to avoid delamination and internal cracks. For the present study, diopside-based glass is chosen as the LTCC substrate material in view of its high coefficient of thermal expansion (CTE). From the experimental resultsn the influence of each element on the CTE change can be revealed.

Key Words : LTCC, diopside, thermal expansion