

Investigation of Interactions Between Co-fired LTCC Components

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Abstract

Material interactions, which take place during co-firing of different LTCC components, is investigated in this work. Selected conductor and resistor (PTC thermistor) thick-film pastes are screen-printed on LTCC green-tapes and co-fired. The resulting structures and the corresponding thermistor characteristics are analysed and the results are interpreted using various characterisation techniques such as compositional analysis, X-Ray diffraction, dilatometry and electron microscopy. This work aims for a better understanding of material interactions in co-fired state and minimise the frequently encountered TCR variations in co-fired structures.