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(54) Title: GLASS CERAMIC MASS AND USE THEREOF

[Figure]

(57) Abstract: The invention relates to a glass ceramic mass, comprising at least one oxide ceramic, containing barium, titanium and at least one rare earth metal Re_k and at least one glass material, containing at least one oxide with boron and at least one oxide of a rare earth metal Re_g . The glass material further contains either at least one oxide of a tetravalent metal Me_{4+} or at least one oxide of a pentavalent metal Me_{5+} . A compression of the glass ceramic mass occurs above all by viscous flow. A low vitrification temperature can thus be achieved. Crystallization products are produced during and/or after the compression. The rare earth oxide and the crystallization products can be used to predetermine each of a dielectric material property of the glass ceramic mass in a wide range such as permittivity (15 – 80), quality (350 – 5000) and T_f value (± 20 ppm/K). The glass ceramic mass is characterized by a vitrification temperature of below 850°C and can thus find application in LTCC (low temperature cofired ceramics) technology for the integration of a passive electrical component in the volume of a ceramic multilayer body. Suppression of a lateral shrinkage may be achieved in a composite with a ceramic film blank made from another ceramic material compressed at a higher temperature.



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