

MIXER WITH MICROCHANNELS IN LTCC TECHNOLOGY

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ABSTRACT

LTCC technology gives the possibility to form spatial structures and can be used to produce components, applied in analytical fluidic systems. This paper will discuss related construction of Y-shaped mixer with microchannels, including cutting process in two lamination layers of LTCC using CO₂ laser. The sample was fabricated by combination of LTCC structure with PMMA covers (polymethylmethacrylate). Mixer was designed for the fluid flow rate to 20 µl/min. The sample was examined for the two fluids: water and ethanol.