The use of Low-Temperature Cofired Ceramics technology in Gas Electron Multiplier Microstructures. Piotr Bielówka

Foreseen advantages of LTCC-GEM structures over polyimide-based ones:

- low outgassing
- low coefficient of thermal expansion
- excellent dielectric properties
- a high amplification
- a high density of vias
- robustness and durability
- many types of conductive layers can be used
- low production costs of prototypes

The first LTCC-GEM prototypes were investigated, and the R&D work is ongoing.

A GEM made on the basis Low-Temperature Cofired Ceramics technique.

LTCC-GEM microstructure made with LTCC substrate covered by a conductive substrate. Vias were fabricated by a laser beam.