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(71) Applicant *(for all designated States except US)*: **S.O.I.TEC SILICON ON INSULATOR TECHNOLOGIES** [FR/FR]; Chemin des Franques, Parc Technologique des Fontaines, F-38190 Bernin (FR).

(72) Inventor; and

(75) Inventor/Applicant *(for US only)*: **LETERTRE, Fabrice** [FR/FR]; 40 chemin des Buclos, F-38240 Meylan (FR).

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(54) **Title:** MULTILAYER STRUCTURE AND ITS FABRICATION PROCESS

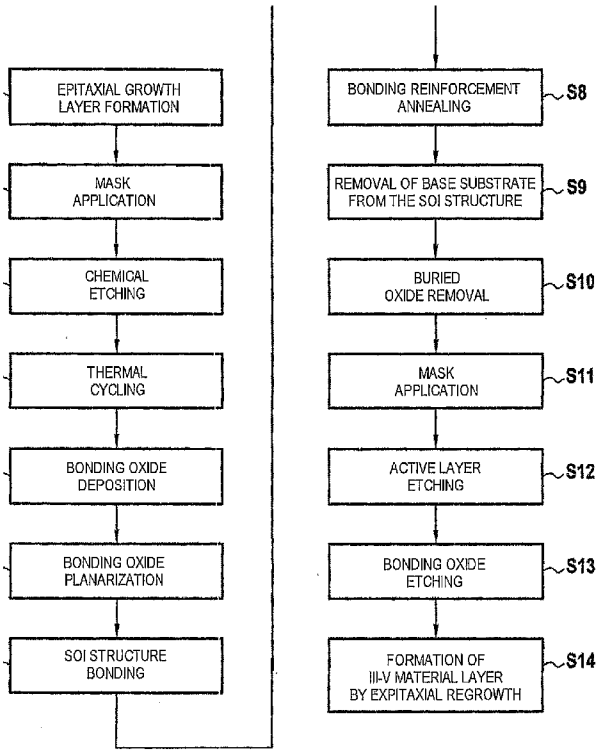


FIG.2

(57) **Abstract:** The invention relates to a process for fabricating a multilayer structure, comprising at least the following steps : a) epitaxial growth (S1) of a growth layer on a silicon substrate; b) formation of at least one pattern (S2, S3) in the growth layer,- c) deposition of an oxide layer (S5) on the silicon substrate; d) transfer of a silicon active layer (S7-S10) onto the oxide layer; e) formation of a cavity (S11, S12) in the silicon active layer and in the oxide layer above each pattern; and f) growth in the cavity of a III-V material (S14) from each exposed pattern of the growth layer.

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