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

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: **GHYSELEN, Bruno** [FR/FR]; 58 rue Georges Maeder, F-38170 Seyssinet-Pariset (FR). **LETERTRE, Fabrice** [FR/FR]; 33 Quai Jongkind, F-38000 Grenoble (FR). **MAZURE, Carlos** [FR/FR]; 357 Route de Saint-Pancrasse, F-38330 Saint-Nazaire les Eymes (FR).

(74) Agent: **CABINET REGIMBEAU**; Espace Performance, Bâtiment K, F-35769 Saint-Gregoire (FR).

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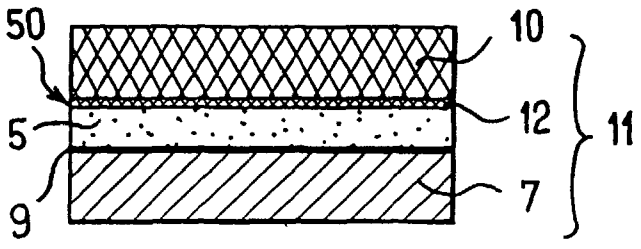
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(54) Title: METHOD FOR MANUFACTURING A FREE-STANDING SUBSTRATE MADE OF MONOCRYSTALLINE SEMICONDUCTOR MATERIAL



(57) Abstract: The invention relates to a method for manufacturing a free-standing substrate made of monocrystalline semi-conductor material.This method is characterized by the following steps comprising: - transferring of a thin nucleation layer (5, 5') onto a support (7) by creating between the two a removable bonding interface (9) ;- growing by epitaxy on said thin nucleation layer (5, 5'), a microcrystalline layer (10) of material intended to comprise said substrate, until it attains a sufficient thickness to be free-standing, while preserving the removable character of the bonding interface (9) ; the coefficients of thermal expansion of the material of the thick layer (10) and of the support material (7) being chosen to be different from each other, such that at the time of cooling of the assembly, the stresses induced by differential thermal expansion between the support material (7) and that of the thick layer (10) causing the removal of said nucleation layer (5, 5') and said monocrystalline thick layer (10) from said support (7) at the level of said removable bonding interface (9).

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