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The invention relates to the semiconductor manufacturing technology and can be used for manufacturing optoelectronic devices.

The method for producing epitaxial TiO₂ thin layers comprises degreasing a glass substrate in toluene, drying it in isopropyl alcohol vapors and placing it in a chemical vapor deposition reactor, which is purged with argon for 20 min at a flow rate of 100 cm³/min, after which the temperature of the substrate is increased up to 400°C. The method also includes the formation of titanium isopropoxide vapors by bubbling at a temperature of 90°C. The deposition of epitaxial TiO₂ layers is carried out by separately feeding into the reactor titanium isopropoxide vapors, carried by an argon flow at a speed of 40 cm³/min, and an oxygen flow at a speed of 40 cm³/min, for 30 min.

Claims: 1