

Abstract

Process for manufacturing semiconductor wafers containing a gas-phase epitaxial layer in a deposition chamber

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A process for producing semiconductor wafers with epitaxial layer deposited from the gas phase in a deposition chamber, comprising

the removal from the deposition chamber of material which has deposited in the deposition chamber in the course of preceding coating operations, by means of

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etching of the deposition chamber;

coating operations carried out in succession and each entailing the deposition of an epitaxial layer on a substrate wafer in the deposition chamber, involving a first gas stream of first deposition gas being passed over the substrate wafer, to form a semiconductor wafer with epitaxial layer;

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before, during or after each of the coating operations carried out in succession, the passing of a second gas stream of a second deposition gas to an edge region of the respective substrate wafer or of the respective semiconductor wafer with epitaxial layer, wherein a change is made in at least one process parameter whose effect is that through the passing of the second deposition gas, deposition of material in the

20 edge region increases as a function of the number of coating operations carried out since the removal of material from the deposition chamber.

Drawing for the abstract: Fig.4