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(54) Title: EPITAXIAL GROWTH METHOD AND EPITAXIAL WAFER

(54) 发明名称: 外延生长方法及外延片

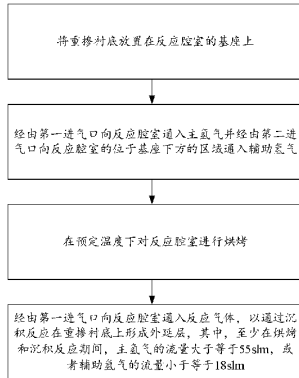


图 2

AA Place a heavily doped substrate on a pedestal of a reaction chamber
BB Introduce main hydrogen into the reaction chamber via a first gas inlet and auxiliary hydrogen into the region of the reaction chamber below the pedestal via a second gas inlet
CC Bake the reaction chamber at a predetermined temperature
DD Introduce a reaction gas into the reaction chamber via the first gas inlet, so as to form an epitaxial layer on the heavily doped substrate by means of a deposition reaction, wherein, at least during baking and the deposition reaction, the flow rate of the main hydrogen is greater than or equal to 55 slm, or the flow rate of the auxiliary hydrogen is less than or equal to 18 slm

(57) Abstract: The present disclosure relates to an epitaxial growth method and an epitaxial wafer. In one aspect, provided is an epitaxial growth method for a heavily doped substrate without a back seal film. The method comprises: placing the heavily doped substrate on a pedestal of a reaction chamber; introducing main hydrogen into the reaction chamber via a first gas inlet and auxiliary hydrogen into the region of the reaction chamber below the pedestal via a second gas inlet; baking the reaction chamber at a predetermined temperature; and introducing a reaction gas into the reaction chamber via the first gas inlet, so as to form an epitaxial layer on the heavily doped substrate by means of a deposition reaction, wherein, at least during baking and the deposition reaction, the flow rate of the main hydrogen is greater than or equal to 55 slm, or the flow rate of the auxiliary hydrogen is less than or equal to 18 slm.

(57) 摘要: 本公开涉及外延生长方法及外延片。在一方面中, 提供了一种外延生长方法, 其用于无背封膜的重掺衬底, 该方法包括: 将重掺衬底放置在反应腔室的基座上; 经由第一进气口向反应腔室通入主氢气并经由第二进气口向反应腔室的位于基座下方的区域通入辅助氢气; 在预定温度下对反应腔室进行烘烤; 以及经由第一进气口向反应腔室通入反应气体, 以通过沉积反应在重掺衬底上形成外延层, 其中, 至少在烘烤和沉积反应期间, 主氢气的流量大于等于55slm, 或者辅助氢气的流量小于等于18slm。

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