ABSTRACT

The present disclosure discloses a method for forming a semiconductor structure, a plasma generator, and a semiconductor process apparatus, and belongs to the technical field of semiconductor structures. The method disclosed includes: performing a first etching process on a stacked semiconductor structure, to form a plurality of fin structures spaced apart from one another, where the stacked semiconductor structure includes at least one first semiconductor layer and at least one second semiconductor layer that are alternately stacked, and separating a plasma generation chamber from a reaction chamber by a first distance when the first etching process is performed; and performing a second etching process on the fin structures, to selectively etch at least a portion of one of the first semiconductor layer and the second semiconductor layer, and separating the plasma generation chamber from the reaction chamber by a second distance when the second etching process is performed, where the second distance is greater than the first distance. The solution can solve the problem of low etching throughput caused by transfer between chambers when a semiconductor process apparatus involved in the related art performs different etching processes.