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(54) **SEMICONDUCTOR STRUCTURE AND METHOD FOR PREPARING SEMICONDUCTOR STRUCTURE, FILM BULK ACOUSTIC RESONATOR AND METHOD FOR PREPARING FILM BULK ACOUSTIC RESONATOR**

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(57) **ABSTRACT**  
Disclosed are a semiconductor structure and a method for preparing a semiconductor structure, a film bulk acoustic resonator and a method for preparing a film bulk acoustic resonator. The method for preparing a semiconductor structure according to the present application includes: growing a first nitride layer on a surface, including an active silicon layer, of a substrate, and selectively removing a partial area of the active silicon layer to form a hollow structure, so that the first nitride layer and the substrate are partially separated, and then a stress between the substrate and the first nitride layer is released. A crack of the semiconductor structure is reduced and quality of the semiconductor structure is improved while a thickness of the semiconductor structure is guaranteed.

