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**GONG et al.**(10) **Pub. No.: US 2023/0231527 A1**(43) **Pub. Date: Jul. 20, 2023**(54) **METHOD FOR MANUFACTURING  
ACOUSTIC RESONATOR IN LATERAL  
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**ABSTRACT**

The present disclosure relates to a method for fabricating a laterally excited shear mode acoustic resonator. The method includes: providing a piezoelectric layer including monocrystalline lithium niobate and/or monocrystalline lithium tantalate; forming an acoustic mirror on a first surface of the piezoelectric layer; the acoustic mirror including at least one first acoustic reflection layer and at least one second acoustic reflection layer, the first acoustic reflection layers and the second acoustic reflection layers being alternately superimposed, and acoustic impedance of each of the first acoustic reflection layers being less than that of each of the second acoustic reflection layers; bonding a bearing wafer on a first surface of the acoustic mirror; and forming an electrode unit and a lateral reflector on a second surface of the piezoelectric layer.

