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(54) **PIEZO-ACTUATED MEMS RESONATOR**

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ABSTRACT

A microelectromechanical system (MEMS) resonator includes a degenerately-doped single-crystal silicon layer and a piezoelectric material layer disposed on the degenerately-doped single-crystal silicon layer. An electrically-conductive material layer is disposed on the piezoelectric material layer opposite the degenerately-doped single-crystal silicon layer, and patterned to form first and second electrodes.

