

ABSTRACT

**METHOD FOR FABRICATING SEMICONDUCTOR STRUCTURES
INCLUDING A HIGH RESISTIVITY LAYER, AND RELATED
SEMICONDUCTOR STRUCTURES**

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Methods of forming a semiconductor structure (140) include forming a device layer (100) on an initial substrate (102), attaching a first surface of the device layer (100) to a temporary substrate and forming a high resistivity layer (136) on a second surface of the device layer (100) by removing a portion of the initial substrate (102). Methods further include attaching a final substrate (132) to the high resistivity layer (136) and removing the temporary substrate. Semiconductor structures (140) are fabricated by such methods that include a final substrate (132), a high resistivity layer (136) disposed over the final substrate (132) and a device layer (100) disposed over the high resistivity layer (136).

Fig. 1H