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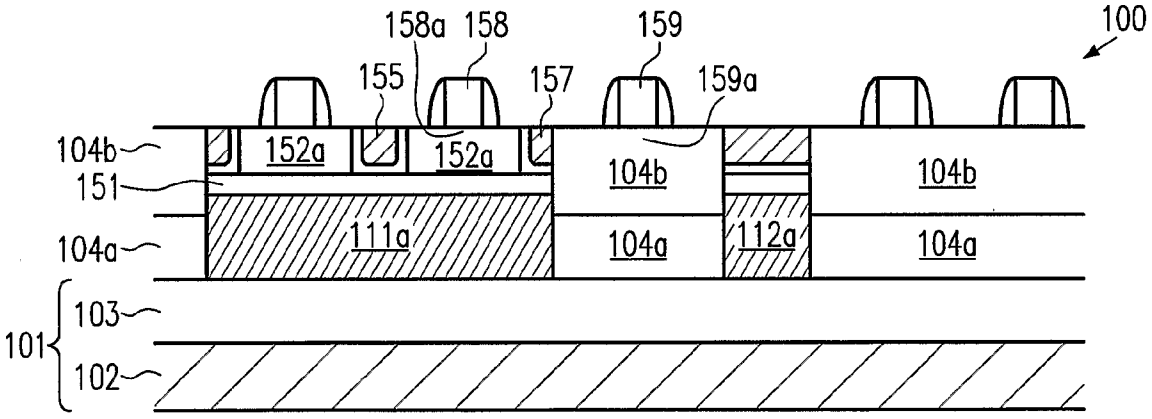
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(54) **Title:** TECHNIQUE FOR FORMING A SUBSTRATE HAVING CRYSTALLINE SEMICONDUCTOR REGIONS OF DIFFERENT CHARACTERISTICS



(57) **Abstract:** Different types of crystalline semiconductor regions are provided on a single substrate by forming a dielectric region 111 a within a first crystalline semiconductor region 104a. Thereafter, a second crystalline region 152a is positioned above the dielectric region 111 a by wafer bond techniques. In preferred embodiments, isolation structures may be formed in the first crystalline region along with the dielectric region. In particular, crystalline semiconductor regions of different crystallographic orientations may be formed, wherein a high degree of flexibility and compatibility with currently used CMOS processes is maintained.

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