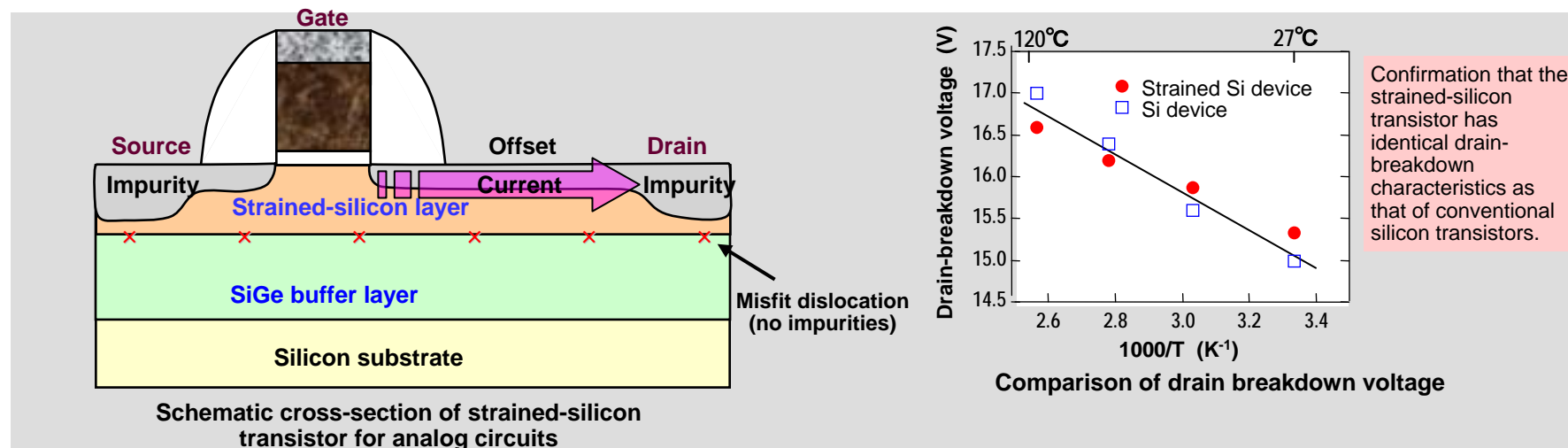


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Successful development of strained-silicon technology for analog circuits - 40% improvement in gain, 16% improvement in frequency -



Hitachi, Ltd. has succeeded in applying strained-silicon technology known to enhance performance in digital semiconductor circuits, to analog circuits. Strained-silicon technology is currently being applied to logic circuits, and issues had existed for its application in analog circuits. In this research, the maximum operation voltage of the strained-silicon transistor was significantly improved to enable its application to analog circuits. This technology is expected to enhance the high-speed performance of analog semiconductor devices, such as those used in high frequency amplifiers in cellular phones.