

14. A nanodevice comprising:

a substrate including an elongated channel having a plurality of nanoscale critical dimensions arranged as a stepped gradient across a width of the elongated channel.

15. The nanodevice as recited in claim **14**, further comprising first and second voltage control channels within the substrate, with the elongated channel being located between the first and second voltage control channels, and the first and second voltage control channels are configured to generate an

electric field in the elongated channel along a direction that is transverse to the length of the elongated channel.

16. The nanodevice as recited in claim **14**, wherein the plurality of nanoscale critical dimensions is heights of steps of the stepped gradient, and the step heights are less than 100 nanometers.

17. The nanodevice as recited in claim **14**, wherein the stepped gradient includes at least two different depths.

18. The nanodevice as recited in claim **14**, wherein the stepped gradient includes at least 1,000 different depths.

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