Review of: "Meanwhile, vertical nanotubes grow more in the proliferation of 2D ballistic nanotransistors. If it is assumed that semiconductor and metal nanotubes can be grown and oriented on the surface with desired precision, they will provide the possibility of compression and increasing the speed of the integrated electronics as much as possible"

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3D nanotube transistors are tubes whose wall is graphene. These pipes can be single-walled or multi-walled as per the structure. On the other hand, depending on how the carbon atoms are twisted and arranged at the edge of the tube, they can be found in three forms (armchair, ziggurag and tube-like chiral). These three forms of carbon nanotubes have very different properties. For example, the chair handle structure behaves as a metallic conductor, while the chiral nanotube structure behaves as a semiconductor, and this function is coordinated with the small gap energy matching with 3D carbon nanotubes. It also gives unique electrical and mechanical properties to the 3D tube nano transistor.

The main problem in using nanotubes in the construction of 2D ballistic nanotransistors is mainly that they should be used lying on the surface so that they can be linked and a metal connection can be established to achieve transistor behavior. Meanwhile, vertical nanotubes grow more in the proliferation of 2D ballistic nanotransistors. If it is assumed that semiconductor and metal nanotubes can be grown and oriented on the surface with desired precision, they will provide the possibility of compression and increasing the speed of the integrated electronics as much as possible.

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