Review of: "The term "nano-transistor" comes from the combination of the words "nano-scale" and "transistor." In a Si graphene field-effect nanotransistor"

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Many chemical and physical methods have been proposed to produce different types of multilayered nanographene. The basis of the work of physical methods is that in these methods, they try to eliminate the forces between the graphene sheets in graphite, and by separating them, they reach single layers of graphene or graphene oxide, which is the same top-down method. In chemical methods, multi-layered nanographene is made by placing individual carbon atoms together, which is also called the bottom-up method. Graphene, which consists of only one carbon atom, can be used to create multilayer graphene field-effect nanotransistors that consume less energy and occupy little space. Graphene is a semi-conducting material with a zero bandgap and is not suitable for logic circuits, but by using nanotechnology, they create different forms of this material that have different gaps. Graphene nanoribbons, multilayer graphene, and graphene grown on Si are such forms.

The term "nano-transistor" comes from the combination of the words "nano-scale" and "transistor." In a Si graphene field-effect nanotransistor, the resistance between two electrodes can be transferred or controlled by a third electrode. In a Si multilayer graphene field-effect nanotransistor, the current between the two electrodes is controlled by the electric field from the third electrode. Unlike the bipolar transistor, it is capacitively connected to the third electrode and is not in contact with the semiconductor. Three electrodes are connected to the source, drain, and gate in the Si multilayer graphene field-effect nanotransistor structure.

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