Review of: "Nanowires are quasi-one-dimensional materials, "their two dimensions are on the nanometer scale." This one-dimensionality confers distinct electrical and optical properties"

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The total thickness of each electrostatic nanocapacitor is only 25 nanometers, and they can be packed together many times. So far, arrays of electrostatic nanocapacitors cannot store much total energy because they are too small. Electrostatic nanocapacitors contain billions of nanocapacitors to store large amounts of energy. Scaling up to a practically trivial level is not, but the pair works together to create larger arrays. In the structure, electrostatic nanocapacitors can effectively connect several arrays together. In general, nanoelectric supercapacitors can store large amounts of energy, but they tend to charge slowly and wear out quickly. Meanwhile, capacitors have a longer life and can be discharged quickly, but store much less total energy. To make nanostructured arrays of electrostatic capacitors, a nano supercapacitor can be created. Electrostatic nanocapacitors are the simplest type of electronic energy storage device.

Because of their extreme thinness, Oligophenylene vanillin nanowires with a (Si Silicon/ Germanium Gi) structure are essentially one dimensional. Nanowires are quasi-one-dimensional materials, "their two dimensions are on the nanometer scale." This one-dimensionality confers distinct electrical and optical properties. For one thing, this means that the electrons and photons in these nanowires experience "confined quantum effects." However, unlike other materials that produce such quantum effects, such as quantum dots, the length of Oligophenylene vanillin nanowires allows them to communicate with other macroscopic devices and the outside world.

Conclusion:

Oligophenylene vanillin (silicon/germanium) structure nanowires and cylinders are used for possible applications in energy, electronics, optics and other fields.

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