

Scientists from St. Petersburg State University conducted a detailed study of the Nickel Nickel Metal Organic Complex and its transformation into polymer, which has electrical conductivity. During the study, the structural features of the complex and the mechanisms of its polymerization were studied.

According to the Naked Science publication, the results of the work are of high significance for the development of innovative materials with unique physical and chemical characteristics that can find use in various fields, including electronics, energy and materials science. Russian experts write about this in the journal Physical Chemistry Chemical Physics.

The Ni (Salen) complex is a standard representative of metal -organic compounds containing sulen type ligands. Polymers obtained on its basis have high electrical conductivity, heat resistance, the ability to change color under the influence of electric current, selective catalytic activity and many other important properties.

Researchers have identified key structural elements that determine the properties of the initial complex and the formed polymer. This discovery allows you to deeperly understand the mechanisms of polymerization NI (Salen) and opens up prospects for further research in the field of polymer chemistry.

In the future, it is planned to study the Polymerization process of NI (Salen) on the surface of carbon nanotubes in order to create highly effective electrodes for lithium-ion batteries and supercontackers, which can contribute to the development of energy storage technologies.