

The creation of electronic devices only from atoms or molecules could be the next step in the creation of more advanced nanotechnologies. Initial experiments have already taken place and we know that it is possible on some surfaces. In this work, we tried to create similar simple molecular structures on surfaces with a silicon substrate. We initially modified the substrate by depositing Bismuth, Indium and a combination of both. We optimized the methods of formation of these surfaces and subsequently created simple structures with the help of deposited Dithienyl-dithiopyrrolopyrrole molecules, while we successfully managed to create the intended structures on several surfaces and arranged groupings of molecules on the surfaces Si(111)/In $\sqrt{3} \times \sqrt{7}$, Si(111)/Bi($\sqrt{3} \times \sqrt{3}$) and on Si(111)/Bi-In($\sqrt{7} \times \sqrt{7}$). We subsequently created a model of interaction molecules in these structures on substrate