**Point defects identification and modification in the Si-SiO2 system and its influence on the interface properties**

Silicon (Si) is the unique semiconductor with the physical properties to ensure the quality of modern microelectronic devices. Silicon dioxide (SiO2) is used as an insulator in devices. However, the presence of various defects in the Si-SiO2 interface directly affects the quality of the nano-sized devices. Within this project, the identification and modification of defects in the Si-SiO2 system and their influence on the interfacial properties was performed. Depending on the type of the defect, it has an electrical charge, which is identified and analysed by C-V characteristics. The aim of the project is to study the formation and reduction of charges in the Si-SiO2 system through the choice of appropriate oxidation conditions using modern research equipment such as electron paramagnetic resonance, infrared absorption spectroscopy, C-V characteristics and scanning electron microscopy.